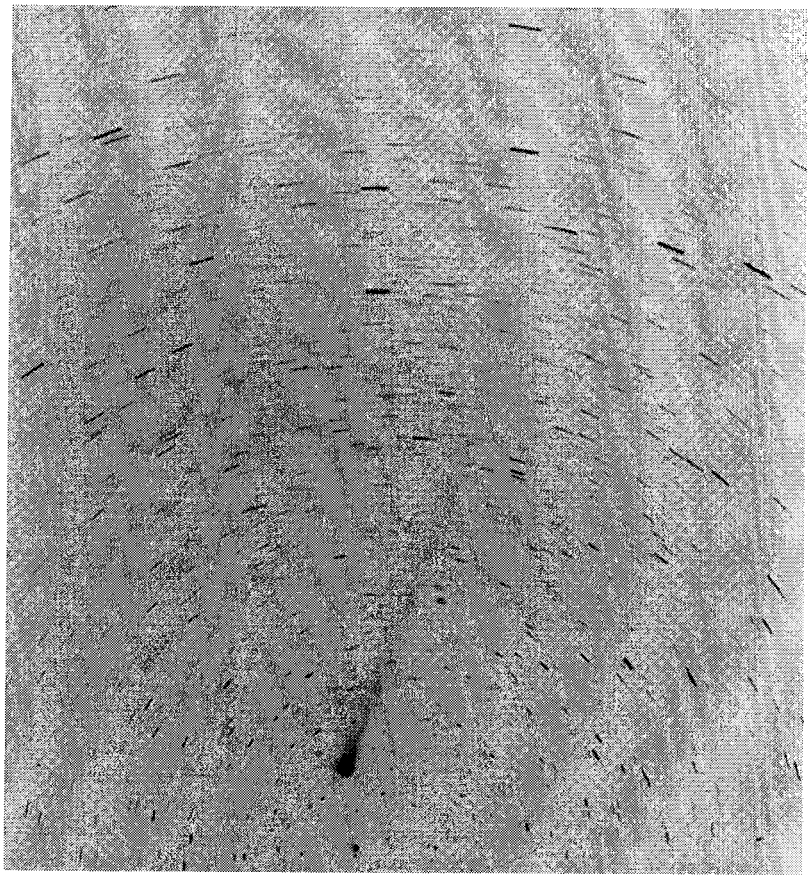
INTERNATIONAL COMET QUARTERLY

Whole Number 98 APRIL 1996 Vol. 18, No. 2



Wide-field image of comet C/1996 B2 (Hyakutake) taken by Herman Mikuž and Bojan Kambic at Slovenske Gorice in Slovenia. The field is ~ 40° × 35° for this exposure on T-Max 400 film (6×6-cm format), taken with a 65-mm camera lens at f/3.5 for 22 min beginning Mar. 27.044 UT. The tail is ~ 30° long in this image, passing through the Big Dipper toward the top; α UMi (Polaris) is near the bottom edge of the photo.

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

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Among the Observation Coordinators (OCs) listed below, those with postal addresses have e-mail contacts with the *ICQ* Editor (or regularly send data to the Editor on IBM PC-compatible floppy disks); observers in the general area of such OCs who lack access to e-mail networks may send data to the OC for relay to the *ICQ* in electronic form.

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— The Editor

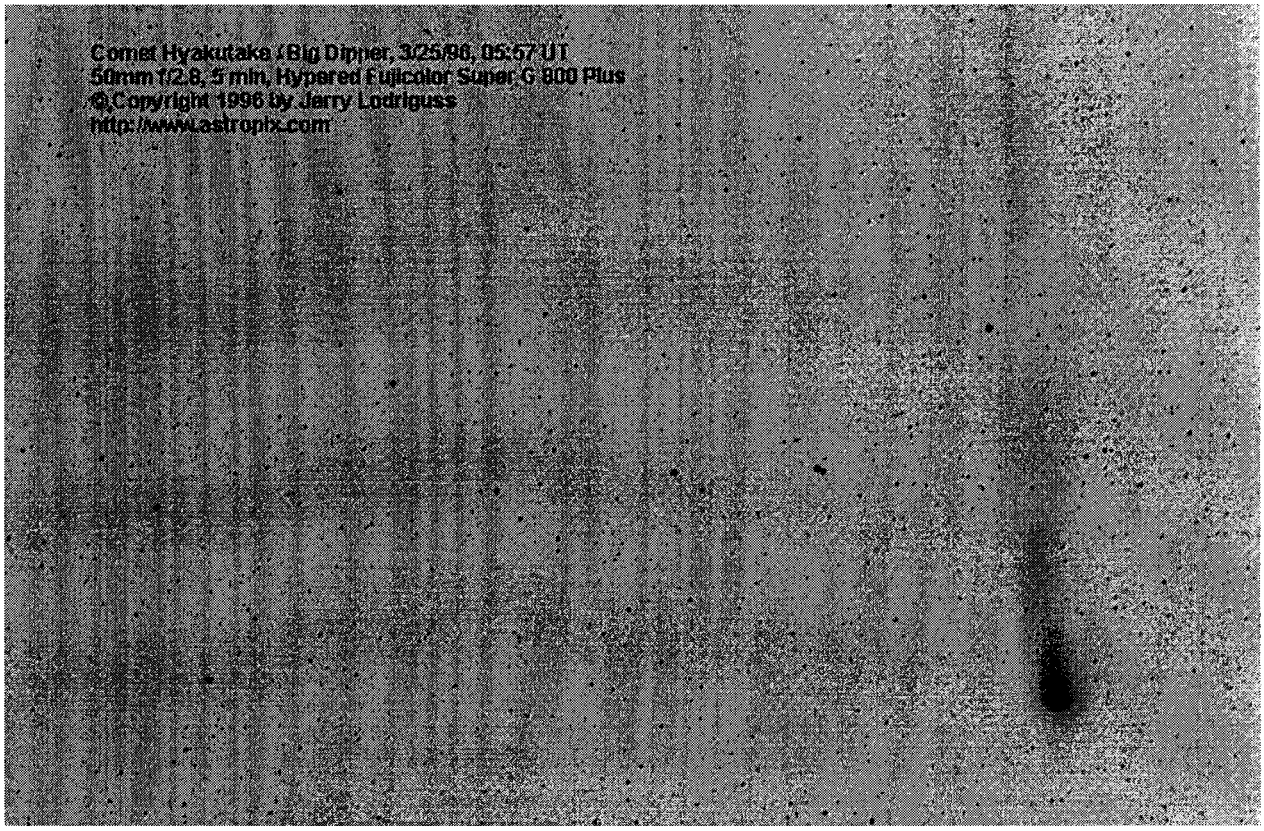
News Concerning Recent Comets

After many years without a bright naked-eye comet, comet enthusiasts have been blessed in the past year with the discovery of two good such performers. Of course, though the naked-eye portion of the performance of comet C/1995 O1 (Hale-Bopp) is only just now beginning — inaugurated by the May 18 naked-eye sighting of that comet by Steve O'Meara from Volcano, Hawaii — it is highly expected that C/1995 O1 will be a good performer in late 1996 and early 1997 because of the stable and steady show of significant activity over the past year since discovery by Alan Hale and Thomas Bopp.

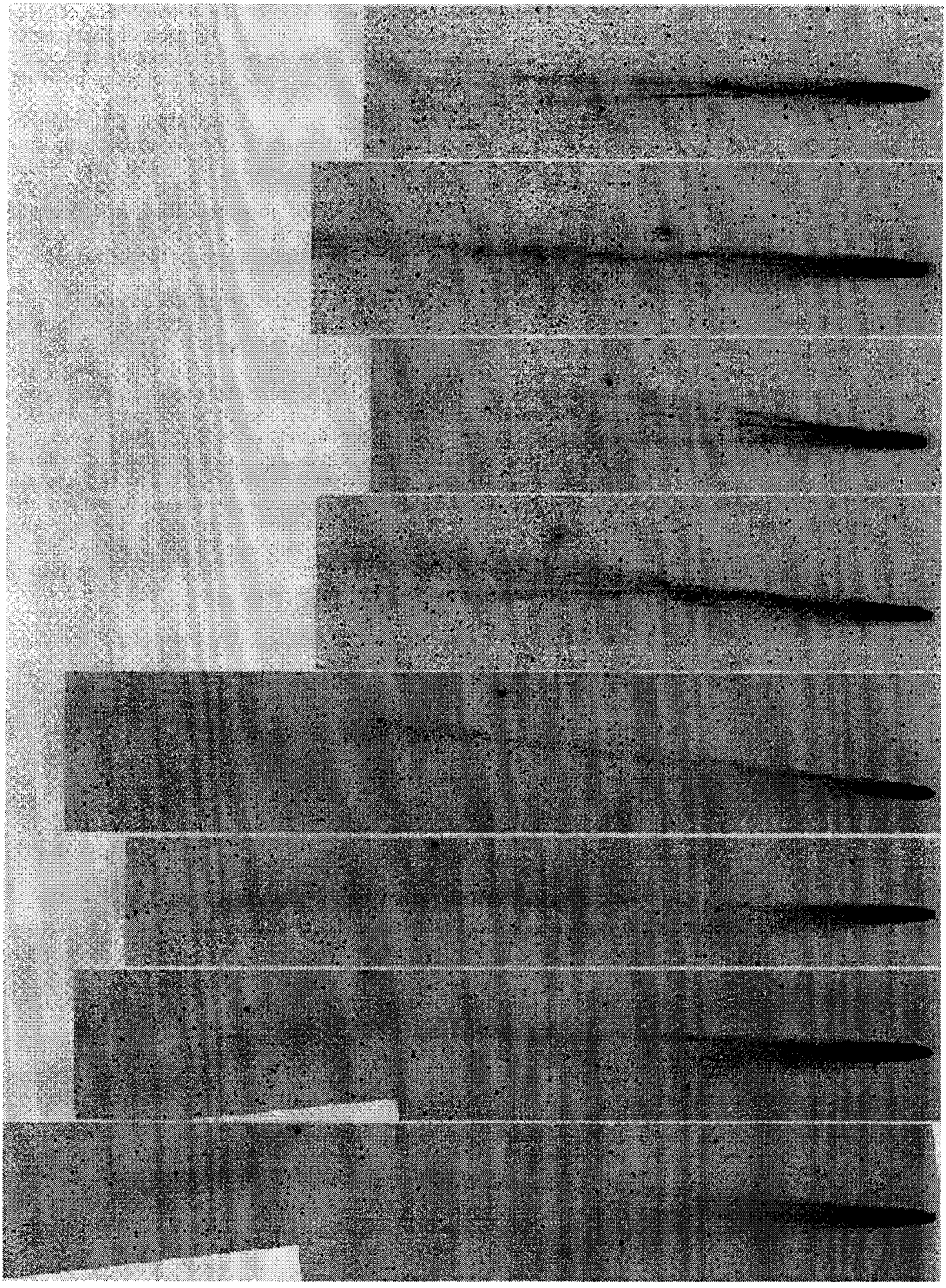
The number of different gaseous emissions that have been reported as observed in C/1995 O1, while it is still at heliocentric distances beyond 4.5 AU, is amazing: it is unusual to detect strong emissions so far from the sun from species such as carbon monoxide (1996 Feb. 10, *IAUC* 6312), cyanogen (Mar. 19, *IAUC* 6361), OH (Apr. 7, *IAUC* 6376), hydrogen cyanide (Apr. 8, *IAUC* 6377), CH_3OH (Mar. 19, Apr. 16, *IAUC* 6382), methanol (Mar. 16, Apr. 5, *IAUC* 6386), and even C_2 and C_3 (Apr. 27, *IAUC* 6400). As this issue was being prepared for press, detection of H_2S was reported at wavelengths by L. M. Woodney *et al.* (*IAUC* 6408). Combined with the steady increase in brightness for comet C/1995 O1 during the first few months of 1996, this gives great hope that C/1995 O1 (Hale-Bopp) could be brighter than visual mag 0 for three full months in 1997 from February to May, assuming $H_{10} = -2.0$!

But the biggest comet news of the past few months was just starting to develop when the January issue of the *ICQ* was mailed out. Yuji Hyakutake had discovered his first comet, C/1995 Y1, with 25×150 binoculars on Christmas Day — a ninth-magnitude object in Hydra — and followed that feat again five weeks later (on Jan. 30) to notch comet C/1996 B2. While C/1995 Y1 (Hyakutake) was a nice comet in its own right, peaking between total visual mag 7 and 8 during February (before fading to mag 10 in April), it was greatly overshadowed by Hyakutake's second long-period comet.

C/1996 B2 (Hyakutake) was intrinsically not a very bright comet, but because it passed only 0.102 AU from the earth on March 25, Hyakutake's second comet became an easy naked-eye object, even from urban areas. But the real treat would not be found except to observers who drove some distance from urban lights — such lucky individuals saw some of the longest tail lengths reported for any comet in the last century, well over 60°-70°! The tail had a low surface brightness, but because the comet was nearly overhead in late March for northern-hemisphere observers, it was quite a striking sight from observing sites with dark skies. The comet passed a few degrees from the north celestial pole on March 27, and was thus circumpolar and near magnitude 0 for days for many millions of people. Below is a photograph taken by Jerry Lodriguss that shows C/1996 B2 with the Big Dipper to its left, the "handle" curving into the comet's tail on March 25.25 UT. *[text continued on page 47]*



Below: *Daily sequence of images of C/1996 B2 (Hyakutake) taken by Herman Mikuž and colleagues in Slovenia, each night beginning April 14 UT (top image), and ending with the view on April 21 (bottom image). Each night's image is a mosaic of 6°.6 × 2°.4 fields exposed for 5 min with a 180-mm camera lens at f/2.8 + CCD + H_2O^+ filter (centered at 620 nm; FWHM = 10 nm).*



[text continued from page 45]

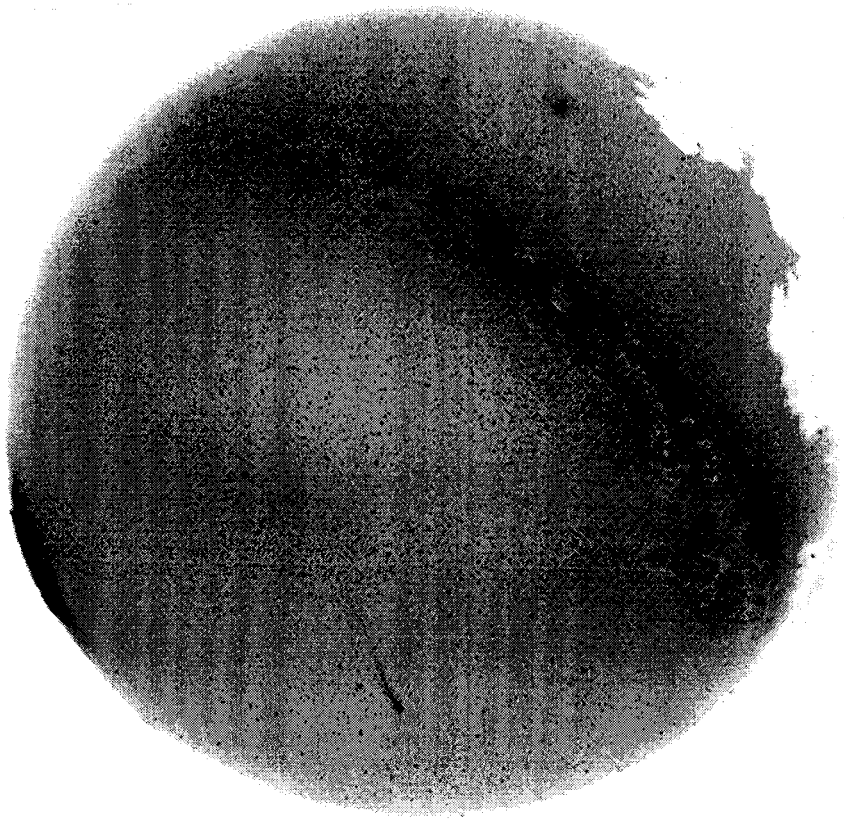
There was a wide variation from observer to observer under dark skies — a large range even among experienced observers — in terms of measured brightness, tail length, and coma diameter. These issues will be addressed more fully at a later point, but a couple of general remarks can be said briefly at this time. The brightest visual m_1 estimates by experienced observers were around −0.8, with the *average* peak brightness estimates by such observers being around 0.0; the apparent visual coma diameter reached a maximum of between 1° and 2°, according to experienced visual observers. Early thoughts about the reasons for a 1- to 2-magnitude range in m_1 estimates of C/1996 B2 near closest approach include suggestions regarding (1) methodology (the amount of defocussing comparison stars and/or comet); (2) differing spectral response of observers' eyes; and (3) the potential influence of a bright, inner (near-coma) tail that was seen to vary substantially in surface brightness and appearance from night to night — all three factors may have contributed to the wide range seen in total visual magnitude.

There was even more controversy regarding the tail lengths. Several very experienced observers at dark-sky locations were reporting tail lengths well over 60° (some around 100°) during Mar. 23-25, when the comet's phase angle (β, which is the angle between the sun and the earth as seen from the comet) was $< 60°$. As noted by Alan W. Harris and Brian G. Marsden (*IAUC* 6360), it is physically impossible for a straight comet tail — typical of gas or ion tails — to be longer in the sky (in degrees) than the size of β. Some curvature in the tail was present, and some calculations need to be performed to determine how much tail width (which amounted to several degrees at 60°+ from the comet's head) and slight tail curvature would add to this limiting straight-tail phase-angle figure. As the comet moved away from the earth in late March and early April, coinciding with the arrival of the comet and the moon in the evening sky, the tail lengths dropped sharply. But in mid-April, tail lengths were again reported in the 70°-100° range, when $110° > \beta > 90°$.

This issue contains some images and a fair amount of tabulated/descriptive information for C/1996 B2, and much more will appear in the July issue of the *ICQ*. This April issue is being finished quite a bit later than usual because of the Editor's large involvement with the observing of C/1996 B2 and dealing with observers and news media representatives in March and April, but the July issue should be back on schedule.

Though some early data were suggesting that C/1996 B2 might follow an r^{-4} or even an r^{-6} power law, a preliminary look at the total visual magnitudes (m_1) from late January into late May yields a fairly nice fit (to within 0.5 magnitude, except around perihelion when the comet was at small elongations from the sun and where the m_1 data are probably of poor quality for decent assessment), in which $n = 3$ and $m_1 = 5.0 + 5 \log \Delta + 7.5 \log r$.

Below is an all-sky view showing the Milky Way (curving from upper left to lower right) and comet C/1996 B2 (Hyakutake) next to Arcturus on Mar. 22.602 UT, from a 15-min exposure on Fuji color film taken by Gordon Garradd at Loomberah, New South Wales, Australia, with a 16-mm fish-eye camera lens. Spica is above the comet, and Corvus is just to left of the center; Sirius and Procyon are near the edge of the circular image, near ~ 11 o'clock and 10 o'clock, respectively. Sagittarius occupies the opposite edge of the image (center of Milky Way), with Jupiter shining through a tree (black dot in white mass in this reversed image). The Large Magellanic Cloud appears near the edge at about 1 o'clock.



Robert Jedicke found his second short-period comet in a year (along with Victoria Jedicke) on CCD images taken with the Spacewatch telescope (Kitt Peak, Arizona) on Jan. 14 and 15. The 17th-magnitude comet was then already five months past its perihelion passage, and it received the appellation P/1996 A1 (Jedicke). Two weeks later, on Jan. 27, Edward W. Szczepanski of Houston, Texas, discovered comet C/1996 B1 on "50-min exposures"; the following night, Alan Hale reported that C/1996 B1 was as bright as total visual mag 8.2, and this comet was well observed as it remained near that brightness for a couple of months before fading in April.

A new program known as "Near-Earth-Asteroid Tracking (NEAT)" that is headed by Eleanor F. Helin (Jet Propulsion Laboratory) and run in connection with the U.S. Air Force at Haleakala, Hawaii, discovered a comet on CCD images obtained on Mar. 15 with the 1-m $f/2.2$ GEODSS telescope. Comet C/1996 E1 (NEAT) was then near mag 16 and moving northwestward in Cancer. Visual estimates a month later suggested that the comet was in the range m_1 = 13-14. And in the second week of May, supernova discoverer Robert Evans of Australia reported his discovery of comet C/1996 J1 on a U.K. Schmidt film exposed by M. J. Drinkwater on May 10 — an object of visual mag 13.5 in Hydra.

Among short-period comets making their second observed returns to perihelion since I last wrote this column in October 1995, and thus warranting the assignment of a permanent number, we have 123P/West-Hartley, 124P/Mrkos, and 125P/Spacewatch. Comet 125P/Spacewatch = P/1996 F1 was recovered by James V. Scotti and J. Montani with the discovery telescope on March 21 and 22. — *D. W. E. Green*

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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. [This list updates that in the January 1996 issue, p. 18.]

	New-Style Designation	*P*	*T*	*q*	*IAUC*
⋆	C/1995 O1 (Hale-Bopp)		4/1/97	0.91	6187
	120P/1995 O2 (Mueller 1)	8.4	4/24/96	2.7	6199
⋆	C/1995 Q1 (Bradfield)		8/31/95	0.44	6206
⋆	C/1995 Q2 (Hartley-Drinkwater)		8/2/95	1.9	6217
	121P/1995 Q3 (Shoemaker-Holt 2)	8.1	8/19/96	2.7	6219
#	122P/1995 S1 (de Vico)	74.4	10/6/95	0.66	6228
	123P/1995 S2 (West-Hartley)	7.6	5/12/96	2.1	6249
	124P/1995 S3 (Mrkos)	5.6	11/9/96	1.4	6250
⋆	C/1995 Y1 (Hyakutake)		2/24/96	1.05	6279
⋆	P/1996 A1 (Jedicke)	19.3	8/15/95	4.1	6287
⋆	C/1996 B1 (Szczepanski)		2/6/96	1.45	6296
⋆	C/1996 B2 (Hyakutake)		5/1/96	0.23	6299
⋆	C/1996 E1 (NEAT)		7/27/96	1.36	6341
	125P/1996 F1 (Spacewatch)	5.6	7/14/96	1.54	6349
⋆	C/1996 J1 (Evans-Drinkwater)		12/30/96	1.30	6397

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Tabulation of Comet Observations

In response to e-mail discussions regarding the difficulty of estimating the brightness of C/1996 B2 (Hyakutake) when that comet was near the earth in late March, the *ICQ* suggested that observers try using two identical binocular objective lens canibalized from a pair of binoculars, thereby producing a 1× monocular; the binocular idea was suggested by John E. Bortle following a World Wide Web posting of a similar eyeglass-spectacle idea proposed by Steve Edberg. We hope to have more on this type of instrument in a future issue of the *ICQ*. Some observations are included in this issue with such a 1× instrument, which some observers found to be most helpful in properly defossing C/1996 B2 when it was large and bright; such observations are denoted by "R" (refractor) for the instrument type and "1" for the magnification, for ready identification. As a general rule, when other measurements are provided in the tabulated data on the same line as an m_1 estimate made with a 1× R, those other measurements (coma diameter, tail length, etc.) are made by the naked eye *without* the 1× monocular.

Due to time constraints, observations contributed on paper again have not been included in this issue; they will appear in the July issue.

Descriptive Information (to complement the Tabulated Data):

◇ *Comet C/1995 O1 (Hale-Bopp)* ⟹ 1995 Oct. 12.98: at 114×, the coma's center contained a feature rather like a diffuse star, which was of mag 11.9 by comparison with surrounding GSC field stars; this "nucleus" was surrounded and blended into a small, dense cond. [BOR]. 1996 Feb. 9.85: fan-shaped coma in p.a. 280°-45° [YUS]. Mar. 1.18: coma elongated toward the NW [MIK]. Apr. 16.11: w/ 20.3-cm T (161×), false nucleus of mag ~ 12.5 [KAM01]. Apr. 19.48: faint but sharp tailward spike extends 0'.81 in p.a. 240°; broad, fan-shaped inner coma feature extends ~ 1'.0 between p.a. 333° and 26° [SCO01].

◇ *Comet C/1995 Q1 (Bradfield)* ⟹ 1995 Sept. 26.14: slight enhancement w/ Lumicon SB-Filter [MEY].

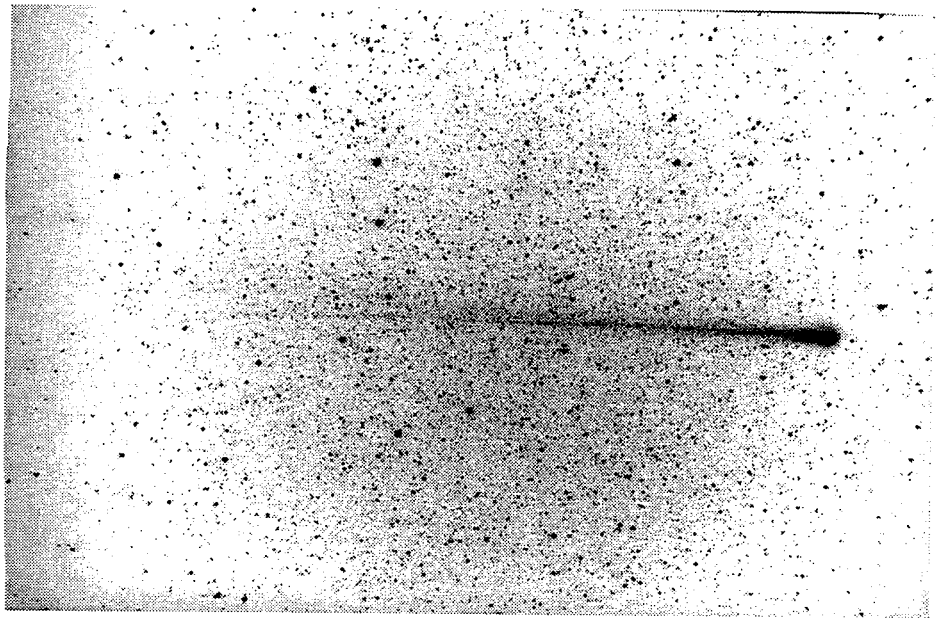
◇ *Comet C/1995 Y1 (Hyakutake)* ⟹ 1995 Dec. 29.22: clearly brighter w/ a Lumicon Swan Band Filter [MEY]. 1996 Feb. 19.14: at 56×, m_2 = 10.6: [BAR06]. Feb. 24.19: condensed coma w/ weak central cond. [KAM01]. Feb. 25.53: second tail is 9'.5 long in p.a. 285° [SCO01]. Feb. 26.41: w/ 40.6-cm f/5 L (70×), coma dia. 3'.6, DC = 5-6 [BOR]. Mar. 27.08: coma slightly elongated (size 6' × 4') [BAR06].

◇ *Comet C/1996 B1 (Szczepanski)* ⟹ 1996 Jan. 31.18: slightly enhanced w/ a Lumicon Swan Band Filter [MEY]. Jan. 31.99: coma slightly elongated [BAR06]. Feb. 10.73: at 56×, m_2 = 11.2: [BAR06]. Feb. 11.12: comet low (but rising); a large structureless glow, brighter w/ Lumicon Deep-Sky Premium filter at 51×; almost invisible in Lumicon Swan-Band filter at 81× [SPR]. Feb. 15.15: comet a large structureless glow, brighter w/ Lumicon Deep-Sky Premium filter [SPR]. Feb. 19.01: at 56×, m_2 = 11.0: [BAR06]. Feb. 23.93: at 50×, diffuse coma w/ central cond., which could be resolved in a dense, bright knot of material (~ 30" in dia.) at 161× [KAM01]. Feb. 25.06: w/ 20.3-cm L (80×), DC = 5; observations from the mountainous Vercors tableland (Isere, France; elevation 1170 m) [FAU]. Feb. 25.15: very diffuse, structureless object; disappears in Lumicon Premium Deep-Sky filter at 81×; first-quarter moon [SPR]. Feb. 25.26: central cond., although not well defined, was of mag 12.3 w/ dia. ~ 13"; coma generally symmetrical, but appeared somewhat brighter throughout its E portion [ROQ]. Feb. 26.13: faint and wide outer halo around bright central region [MEY]. Feb. 26.18: diffuse coma with false nucleus of mag ~ 12.5 [KAM01]. Feb. 26.38: w/ 40.6-cm f/5 L (70×), coma dia. 4'.9, DC = 4 [BOR]. Feb. 27.19: large, diffuse coma w/ no tail activity [MIK]. Feb. 27.99: m_2 = 11.9 [BAR06]. Feb. 29.93: m_2 = 11.8 [BAR06].

Mar. 1.21: central cond. of mag 12.7 and dia. 13"; a suspected diffuse tail appeared as an enhanced linear feature w/in the coma and extended from its origin near the nuclear region to the coma's detected limit [ROQ]. Mar. 9.15: central cond. had dia. 9" and mag 13.3; the coma was generally symmetrical, but showed hint of asymmetry at p.a. 266° [ROQ]. Mar. 10.92: at 161×, still a dense, bright knot of material (~ 30" in dia.) at center [KAM01]. Mar. 12.18: comet much brighter w/ Lumicon Premium Deep-Sky Filter (51×); when using the filter (51× and 102×), there is a bright curved jet(?) or hood to the NW — not visible when the filter is not used [SPR]. Mar. 13.08: w/ 40.6-cm f/5 L (70×), coma dia. 4'.6, DC = 3 [BOR]. Mar. 18.17: much brighter w/ Lumicon Swan-and filter (22×); not as noticeable w/ Lumicon Premium Deep-Sky filter (27×) [SPR]. Mar. 19.25: central cond. w/ dia. ≃ 4" and mag 13.5; the coma showed pronounced asymmetry toward p.a. 77° [ROQ]. Mar. 20.13: central cond. w/ dia. of 5" and mag 13.6; the coma was very slightly asymmetrical at p.a. 109° [ROQ]. Mar. 22.14: central cond. w/ dia. 5" and mag 13.3; the coma was symmetrical w/ no apparent tail structure [ROQ]. Mar. 23.67: some thin cirrus cloud may have affected obs. [PEA]. Apr. 7.22: central cond. w/ dia. 3" and mag 15.7; coma was symmetrical w/ no indication of tail structure [ROQ].

◇ *Comet C/1996 B2 (Hyakutake)* ⟹ 1996 Feb. 18.15: w/ 20-cm f/2 Baker-Schmidt camera (+ V filter + ST-6 CCD), ellipsoidal coma ~ 14' × 16'; delicate tail; bright central cond. [MIK]. Feb. 18.21: from Mt. Generoso, Italy, elevation 1200 m; star-like nuclear region [ZAN]. Feb. 18.13: elongated coma in p.a. ~ 310°-320° [MIL02]. Feb. 24.10: fan-shaped, asymmetric outer coma w/ strong 3' × 4' inner coma [SAR02]. Feb. 24.15: condensed coma w/ conspicuous central cond. [KAM01]. Feb. 25.10: starlike nucleus of mag 11.5 in strong, elliptical inner coma; secondary tail 20' long in p.a. 260° [SAR02]. Feb. 25.15: fan-shaped coma, tails 0°.1 long in p.a. 280° and 295° [HAV]. Feb. 25.49: tail extends first 15' from the nucleus in p.a. 280°, and then out to 47' in p.a. 284°; a second tail extends 15'.3 in p.a. 290° [SCO01]. Feb. 26.08: strong central cond., asymmetric outer coma; possible fan-shaped tail in p.a. 240°-280° [SAR02]. Feb. 26.08: tail open toward p.a. 290°-305° [BAR06]. Feb. 26.14: slightly enhanced w/ a Lumicon Swan Band Filter; asymmetrical coma [MEY]. Feb. 26.15: as on Feb. 24, false nucleus of mag ~ 10.0; small tail to the W [KAM01]. Feb. 26.39: w/ 40.6-cm f/5 L (70×), 0°.4 tail in p.a. 285° [BOR]. Feb. 27.15: obs. as on Feb. 18.15, "elliptical coma of size ~ 20' × 25'; faint, diffuse tail ~ 1° long in p.a. ~ 290°; a further 3-min R image shows similar ~ 1° fan-like tail in p.a. ~ 270°-290°; this similar tail appearance on V and R exposures indicates that it is composed of sun-reflecting dust particles" [MIK]. Feb. 28.15: 5-min exp. w/ 20-cm f/2 Baker-Schmidt camera (+ R filter + ST-6 CCD) shows a trace of weavy ion tail structure ~ 0°.8 long extending in p.a. ~ 290° [MIK]. Feb. 29.09: at 56×, m_2 = 9.5: [BAR06].

Mar. 1.16: obs. as on Feb. 18.15, "elliptical coma of size ~ 24' × 28'; 5-min V- and R-filter images show similar ~ 0°.7 diffuse dust tail; no sign of ion-tail activity" [MIK]. Mar. 2.54: coma slightly elongated (N/S) but very large w/ bright, round, globular-like center; plasma tail narrow, essentially structureless [SPR]. Mar. 3.18: 10-min wide-field CCD exp. w/ Zeiss 180-mm lens at f/2.8 (+ narrow-band H_2O^+ filter centered at 620 nm, FWHM = 10 nm) shows delicate ion tail ~ 3° long in p.a. ~ 293° [MIK]. Mar. 4.40: w/ 20×80 B, coma dia. 5'.7, DC = 6-7 [BOR]. Mar. 10.958: center time of two co-added wide-field CCD exp. of 12 min total duration, taken w/ the Zeiss 180-mm f/2.8 lens (+ narrow-band H_2O^+ filter centered at 620 nm, FWHM = 10 nm), showing at least ~ 4° of ion tail in p.a. ~ 285°; conspicuous disconnection



Above: *Photograph of C/1996 B2 (Hyakutake) taken on 1996 March 27 by Roar Skartlien in Norway; 15-min exposure on Kodak Ektachrome 400 film with a 28-mm f/2.8 camera lens. The coma is near Polaris, and the tail extends through the bowl of the Big Dipper into the Coma Berenices cluster.*

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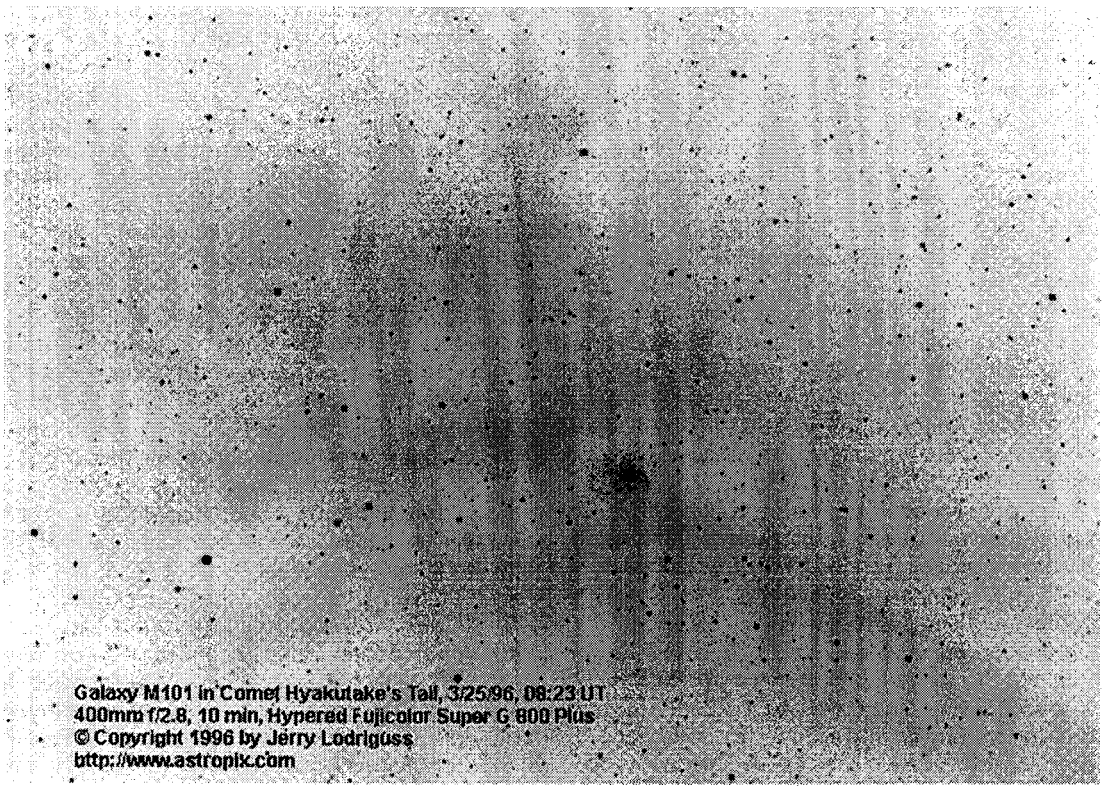
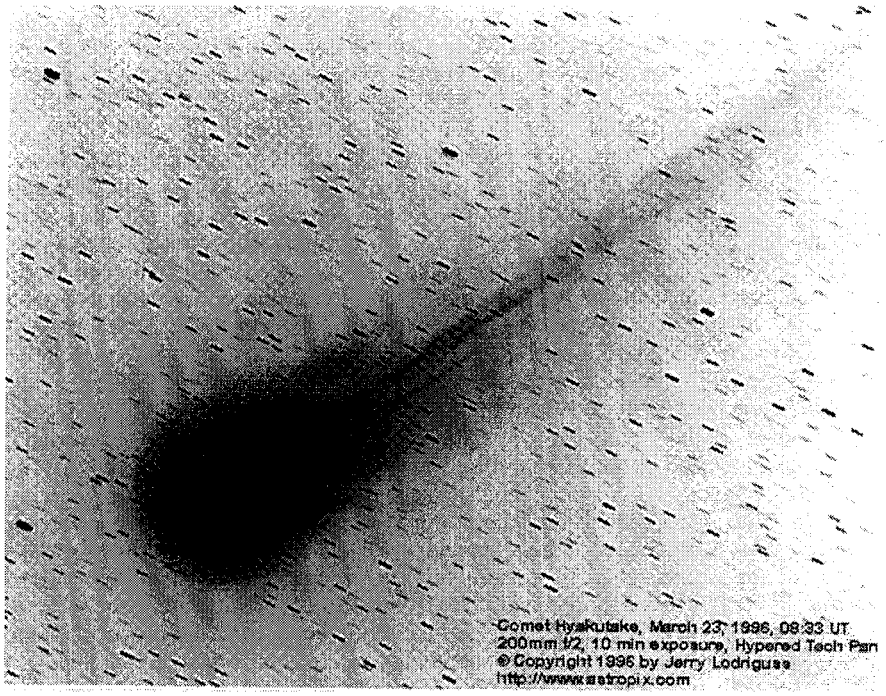
in tail, between nucleus distances 1°.0 and 1°.4 [MIK]. Mar. 11.29: w/ 20×80 B, coma dia. 10′, DC = 6-7; w/ 40.6-cm *f*/5 L (57×), DC = 7-8, 0°.9 tail in p.a. 300° [BOR]. Mar. 12-18: bright fan tail (ion tail in p.a. 280° and dust tail spans p.a. 260°-280°) [DES01]. Mar. 12.05: w/ 15-cm R (75×), 10′ coma, DC = 7 [DIE02]. Mar. 12.33: w/ 20×80 B, coma dia. 14′, DC = 7, 1°.9 tail in p.a. 300° [BOR]. Mar. 13.41: tailless comet is quite visible to the naked eye as a small (10′), bright, globular-like featureless glow; coma slightly elongated (E/W), very large w/ a bright round globular-like center and filamentary hoods (or veils) sweeping back to form a multi-structured 3-part tail — one tail is narrow and extends 1/4 deg at p.a. 295°; main tail extends for 1°.5 at p.a. 285°, w/ another thin, narrow section of tail 1°.0 at p.a. 260° [SPR]. Mar. 14.14: w/ 15-cm R (75×), 12′ coma, DC = 8 [DIE02]. Mar. 14.40: broad, twinned filamentary tail; tailless comet is quite visible to the naked eye as a small (8′-10′), bright globular-like featureless glow; small 30′ plasma tail extends outwards at p.a. 190° [SPR].

Mar. 15.11: strongly condensed coma with very conspicuous central cond.; broader dust tail to the W with narrow, weak ion tail on its N border; in a 20.3-cm T (80×), false nucleus of mag 8.5 (ref: S) [KAM01]. Mar. 15.48: very visible to the naked-eye as a small (12′), bright, slightly-elongated ball, w/ a tail extension of 1°.5; small 1° plasma tail in p.a. 250°; tail structure much changed from Mar. 13.41 and 14.40; w/ 11×80 B, a very filamentary (whispy), broad tail w/ a very bright, narrow, central part (giving the impression of a dual-tail) w/in the main section; w/ 0.8-cm *f*/3.7 R (19×), the coma had a bright, solid center w/ a small veil extension of 8′ on NE side; comet not much brighter when a Lumicon Swan-Band filter (12×) was used [SPR]. Mar. 16.48: 1° plasma tail extends outwards at p.a. 200°, main tail extends for 2° at p.a. 270°; w/ 11×80 B, coma shows a bright center and filamentary (whispy), broad tail w/ a very bright, narrow, northern part (giving the impression of a dual-tail) w/in the main section which extended some 2.0° at p.a. 270°; smaller (60′), thin plasma tail extension at p.a. 200°; w/ 10-cm *f*/5.4 R (11×), coma had a bright, solid, 10′, 7.5-mag center w/ small veil (horned!) extensions on the NE and SW sides (but tail structure wasn't as evident as through binoculars) [SPR]. Mar. 17.02: m_2 = 5.5: [SCO04]. Mar. 17.06: w/ 12×80 B, 32′ coma, DC = 5, 4° tail in p.a. 272° [BAR06]. Mar. 17.23: w/ 10×50 B, 27′ coma, DC = 7-8 [BOR]. Mar. 18-24: obs. made from the National Observatory of Venezuela (altitude 3600 m in the Andes) [FER]. Mar. 18.07: w/ 7×50 binoculars, 2° tail in p.a. 260° [PRA01]. Mar. 18.10: w/ 10×80 B, 3° tail in p.a. 278° [HOR02]. Mar. 18.35: very visible (m_1 = 2.6) to the naked-eye as a small (25′), bright, slightly-elongated ball, w/ a tail extension of 2°.5 [SPR]. Mar. 18.50: w/ 10×50 B, coma dia. 0°.7 deg, tail > 3° long in p.a. 280° [SCO01]. Mar. 19.22: w/ 10×50 B, 31′ coma, 4°.3 tail in p.a. 273° [BOR]. Mar. 19.23-Apr. 1.08: *V* magnitudes from *Yale Catalogue of Bright Stars* (3rd ed., Hoffleit 1964) and *Astronomical Almanac 1996* were color-corrected according to formula by Howarth and Stanton (1980) via $m_v = V + 0.16(B-V)$; this agrees well with magnitudes in ref SP, such that for Arcturus, $m_v \simeq +0.24$ [GRE]. Mar. 19.50: "the tail length has been quite variable from night to night, with last night (Mar. 18 UT) only being just over 3° long and on the 17th ~ 6° long; it is definitely best observed with the unaided eye; binoculars only do the coma region any good" [SCO01]. Mar. 19.93: w/ 10×50 B, 3° tail in p.a. 278° [PLS]. Mar. 20-21: a series of wide-field images was taken at the Crni Vrh Observatory in very good conditions with the 180-mm and 65-mm lenses (+ CCD and narrow-band filters); a mosaic image taken on Mar. 20.94 w/ the H_2O^+ filter, centered at 620 nm (FWHM = 10 nm), shows numerous streamers in the sector p.a. 245°-275°, some extending up to ~ 7° from the nuclear region; there is a conspicious disconnection in the ion tail at nucleus distance 137′; further mosaic frames taken

around Mar. 21.09 display at least ~ 20° complex ion tail structure with kinks, clouds and knots of material along the main tail stream in p.a. 260°; there is a bifurcation at nucleus distance ~ 7°; additional imaging with the same lenses and red continuum filter, centered at 647 nm (FWHM = 10 nm) shows ~ 7° broad, diffuse, slightly-curved dust tail in p.a. ~ 250°; images are available on the World Wide Web at `http://www.fiz.uni-lj.si/astro/comets` [MIK]. Mar. 20.10 and 20.98: w/ 7×50 binoculars, 9° tail in p.a. 255° (Mar. 20.10) and 250° (20.98) [PRA01]. Mar. 20.58: 40′ dust tail in p.a. 240°; longer tail is ion tail [OME]. Mar. 20.93: w/ 10×50 B, 6° tail in p.a. 275° [PLS]. Mar. 21.08: tail very weak and diffuse towards the end; in 13-cm L, there was a bright and starlike central cond. [MEY]. Mar. 21.08: w/ 10×50 B, DC = 6, 5° tail in p.a. 260° [HAV]. Mar. 21.10: tail ~ 20° long in p.a. ~ 260°; starlike central cond. clearly visible w/ naked eye [MIK]. Mar. 21.16: large difference in coma size, E vs. B [KAM01]. Mar. 21.16: w/ 7×50 B, 45′ coma, DC = 8 [DIE02]. Mar. 21.27: very visible ($m_1 = 1.5$) to the naked eye as a bright, slightly-elongated ball (45′), w/ a tail extension of some 3.0° [SPR]. Mar. 22.00: w/ 7×50 B, coma dia. > 60′, 10° tail in p.a. 260° [SKI]. Mar. 22.25: m_1 estimate made via "in-focus reflection off round, spherical convex mirror (in which the comet is squashed down to an almost-point source, whereas the stars remain point sources)" [DIL]. Mar. 22.3: w/ naked eye + 1× lens, $m_1 = 1.2$ (MM: S; comparison star SAO 157923); coma dia. 60′; tail 37° long in p.a. 250° [Barbara Wilson, Columbus, TX]. Mar. 22.93: w/ 15-cm f/15 R (67×), bright jet of length 4′.5 from nucleus toward W [CHE03].

Mar. 23.02: from Breuil-Cervinia, Italy, elevation 2000 m; comet and comparison stars defocused via +2.00 spherical spectacle lens (comet defocused w/ lens close to eye, stars defocused w/ lens as far as needed); compact, sharp, circular coma w/ faint, diffuse outer halo and difficult star-like nuclear region; tail begins slightly narrower than whole coma but gets broader w/ nuclear distance, w/ hints of deviations from the extended radius vector; tail very easy for the first 10° (naked eye); at Mar. 23.20, in strong twilight, the coma is almost gone but the star-like nuclear region is still easily visible at $m_2 = 3.5$ (comparison stars ϵ and ρ Boo; naked eye); w/ 25×150 B, coma diameter > 3°; in 7×42 B, coma dia. > 4°, slightly curved tail or ray just S of the main tail (w/ which it merges before joining the coma; the main tail shows a delicate spine and several hints of ray structures); w/ 25×150 B and 40-cm f/4.5 L (57×), the coma shows a distinct greenish hue; w/ 40-cm L (183×), bright star-like false nucleus and bright, narrow, sharp jet at p.a. 240° (bright for nearly 2′); also yellow fan, 150° wide, < 1′ long in sunward direction [ZAN]. Mar. 23.11: w/ 25.6-cm f/5 L (507×), condensations seen tailward from the nucleus at distances 8″ and 20″ [BIV]. Mar. 23.24: w/ 10×50 B, 108′ coma, DC = 7 [BOR]. Mar. 23.35: large broad bluish-colored coma and broad, yellowish-colored tail; w/ 7×50 B, tail was easily traced for 15° (from a suburban area); w/ 0.10-m f/5.4 R (49×), a bright, thin, bluish-white jet of material 1′.5 long at p.a. 245°, giving the appearance of a tiny, thin-tailed blue-white comet w/in a more dusty yellowish comet — a spectacular and unusual sight! [SPR]. Mar. 23.68: first 15° of tail was easily visible to naked eye and comparable in brightness to the Milky Way around Sgr; remainder of tail easily seen w/ averted vision; binoculars revealed brightness variations and shape irregularities along the length that are indicative of possible disconnections and kinks; tail was easily traced out for 12° with 20×80 B; coma possessed distinct parabolic shape w/ strong central cond. [PEA]. Mar. 23.86: w/ 11-cm L (160×), three bright jets extend some 0′.5-1′ from the nucleus in the sunward coma hemisphere; w/ 12×80 B, at the





Above: *Photograph of C/1996 B2 (Hyakutake) taken on 1996 March 23.36 UT (10-min exposure on hypered Technical Pan film) with a 200-mm f/2 camera lens by Jerry Lodriguss.*

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distance 15° from the comet's head there is a break and division of the tail [BAR06]. Mar. 23.92: w/ 0.7-cm E (1×), 21° tail [HEE]. Mar. 23.97: very conspicuous object with a tail, ~ 2° wide, well visible up to 15° (the first 8° bright) — the far end being visible only with averted vision; several streamers, especially near the coma and at a point ~ 15° away, where the dust tail ends; in 9×63 B, coma dia. 70′, DC = S8, central cond. of mag 5.0; in 40-cm L, brilliant false nucleus and a very bright, narrow spike (jet?) in the direction of the tail; in the solar direction, weaker fan of material spanning 120°, while ~ 0°.2 away in the same direction, there was a sharp drop of the intensity within the inner coma [KAM01].

Mar. 24: black-and-white photographs (Kodak 3200 film) exposed for 40-50 sec with a 35-mm camera on a stationary tripod reveal a gas tail > 50° long; in 11×80 binoculars, the gas tail had a very distinct blue color; the dust tail was faint and yellow, extending for 5°; a bright jet extended some 5′ into the gas tail in p.a. 250° [DES01]. Mar. 24.10: w/ 15-cm *f*/15 C (55×), bright 2′ jet from nucleus toward SW [CHE03]. Mar. 24.21: w/ 0.20-cm T (185×), large coma has bright, round, star-like center; a sharp 3′.5 'spike' extends at p.a. 225° from the central coma cond. (giving the appearance of a 'comet w/in a comet'), w/ additional 0′.5 and 0′.3 spikes at p.a. 290° and 100° [SPR]. Mar. 24.22: in-focus, viewing reflections in 3.75-inch convex mirror [DIL]. Mar. 24.34: w/ 10×50 B, 89′ coma, DC = 7 [BOR]. Mar. 24.82: w/ 10×50 B, 68′ coma, DC = 6-7, 8°.5 tail in p.a. 215° [GRA04]. Mar. 24.86: as on Mar. 23.11, cond. seen at 12″, 23″, and 38″ from the nucleus [BIV]. Mar. 24.99: comet nearly overhead; tail easily visible w/ the naked eye for 32°, the next 13° being visible only w/ averted vision; tail significantly brighter (but not the coma!) than yesterday and also broader, showing some curvature; in 9×63 B, the first 3°.5 are medium bright and rather diffuse w/ some streamers, looking rather like a gas tail (at 3°.5, there is a sharp rise in the surface brightness, and thereafter the dust component dominates) — it looks as if a major tail disconnection event has taken place some hours ago; at a distance of 10°, I can easily recognize a significantly brighter cond. w/in the tail (~ 0°.5 long); brightness of central cond. was mag 5.5; w/ 20.3-cm T, the bright spike (p.a. 220°) is 6′ long; again, there is a fan in the direction of the sun, spanning ~ 120° with a faint jet, ~ 1′.5 long at ~ p.a. 340°; the sharp intensity drop is located ~ 0°.2 away from the false nucleus (in the solar direction), which is of mag 7.0 and perfectly stellar at 161× [KAM01].

Mar. 25.00: from Breuil-Cervinia, Italy; w/ naked eye, star-like nuclear region easier and coma slightly less compact than yesterday — also, broad, faint, and diffuse outer halo (tail as broad as the compact part of the coma — nearly 1°.5 — at the beginning); w/ 7×42 B, the ray just S of the main tail, observed yesterday, is no longer present; w/ 40-cm *f*/4.5 L (57×), central coma shows yellow/greenish hue; at 183×, narrow, sharp conical jet at p.a. 210° (tailward), bright for nearly 4′; also, yellowish fan, 140° wide, < 1′ long in sunward direction w/ border jet in p.a. 325°, nearly 1′ long, and jet at p.a. 90°, nearly 0′.7 long [ZAN]. Mar. 25.05: w/ 10×50 B, 0°.9 coma, DC = 7-8 [BOR]. Mar. 25.09: w/ 10×50 B, DC = 6-7, 17° tail in p.a. 212° [GRA04]. Mar. 25.20: w/ 0.10-m R (80×), huge coma has a bright, round, star-like center; fan-tailed, 15′, bluish-white 'spike' extends at p.a. 215° from the central coma cond.; at 10° from the head, the naked-eye tail broadens into two distinct filamentary tails — both easily traced for over 25° [SPR]. Mar. 25.83: comet impressive despite moonlight and some cirrus; in 15.6-cm L (102×), a broad, sunward fan (almost 180° wide) w/ little detail visible; intense tail spine; strong stellar cond. [BOU]. Mar. 25.83: w/ 11-cm L

(90×), stellar nucleus of mag 7.5 and dia. 0.5; three bright jets extend some 1′-2′ from the nucleus in the sunward coma hemisphere; bright conical outflow from the nucleus in the direction of tail [BAR06]. Mar. 25.93: as on Mar. 24.86, cond. seen at 15″ and 34″ [BIV].

Mar. 26.00: w/ 11-cm L (150x), star-like nucleus of $m_2 = 7.5$ and dia. 0.5 [BAR06]. Mar. 26.02: plasma tail 55° long, directed to the opposition point [PRA01]. Mar. 26.04 and 27.00: tail seen via naked eye with comet at zenith and good sky conditions [BAR06]. Mar. 26.19: w/ 0.08-m f/3.7 R (19×), bright star-like center from which there is a short, bluish, tailward, 15′, fan-tailed 'spike' or jet at p.a. 205° [SPR]. Mar. 26.19: w/ 10×50 B, 42′ coma, DC = 7 [BOR]. Mar. 27.00: w/ naked eye, 85′ coma, DC = 5, tail 110° long in p.a. 179° [BAR06]. Mar. 27.10: straight tail extending for ~ 45°, ending near β CVn; limiting mag 6.5; comet and stars defocussed with spectacles; in 15×80 B, coma appears of distinct greenish color with starlike nuclear cond., and there is a straight, narrow jet ~ 3° long, extending from the comet's central cond. in p.a. ~ 145° [MIK]. Mar. 27.27: w/ 10×50 B, 39′ coma, DC = 7 [BOR]. Mar. 27.95: as on Mar. 25.93, cond. seen at 20″ and 45″ [BIV]. Mar. 28.07: straight tail 70° long, directed to the opposition point [PRA01]. Mar. 28.08: w/ 10×50 B, 57′ coma, DC = 7 [BOR]. Mar. 28.12: comet noticeably fainter than 3 days ago; tail fainter and smaller w/ only a few streamers near the head visible in 9×63 B; w/ 20.3-cm T (77×), the tailward jet has faded dramatically; in contrast, the sunward fan has gained in brightness, spanning 150° w/ surprisingly steep brightness gradients on both ends of the fan [KAM01]. Mar. 28.13: easy star-like nuclear region; tail noticeably fainter but longer than on Mar. 25 (bright for 25° and easy to 40°); tail begins almost as wide as coma via naked eye; in strong twilight, 0.75 hr before sunrise, coma almost gone but star-like nuclear region still easily visible to naked eye ($m_2 = 3.3$, comparison stars γ UMi and ρ Boo); w/ 7×42 B, parabolic coma w/ gradual cond. (DC = 6) and star-like nuclear region, overall yellowish hue, hints of stubby dust tail close to the coma; w/ 15-cm L (125×), very faint, straight, tight, and delicate tailward (p.a. 45°) jet or spine, w/ straight jet in p.a. 135° and fainter, curved jet or fountain starting at p.a. 285°, plus yellow fan between p.a. 135°-285° (sunward) and fainter to nearly p.a. 315°; between p.a. 40°-135°, very sharp and dark region compared w/ that between p.a. 315°-40°, noticeably less dark and sharp [ZAN]. Mar. 28.19: w/ 0.10-m f/5.4 R (150×), despite the first-quarter moon, the comet is still an impressive sight, w/ a very bright star-like center from which there is a short, tailward, 10′, fan-tailed 'spike' and three curved fountains ~ 2′ in length surrounding the slightly flattened sunward side of the coma [SPR]. Mar. 28.87: as on Mar. 27.95, cond. seen at 55″ [BIV]. Mar. 29.14: w/ naked eye, easy star-like nuclear region, tail bright to 15° and easy to 30°; w/ 7×42 B, parabolic coma w/ gradual cond., star-like nuclear region (DC = 6) and overall yellowish hue; straight, diffuse dust tail, nearly 8° long, begins almost as wide as coma; the main gas tail traces the N dust tail border; delicate and faint spine; w/ 15-cm L (125×), the detail in p.a. 45° observed yesterday has gone, while the sunward fan has shrunk in width to nearly 100° w/ border jets suspected (and maintains a yellow/greenish hue) [ZAN]. Mar. 29.18: w/ naked eye, broad curved tail extends some 10° in p.a. 48° in very strong moonlight (still a large, conspicuous object); w/ 20-cm f/10 T (225×), tailward fan-tailed 'spike' is no

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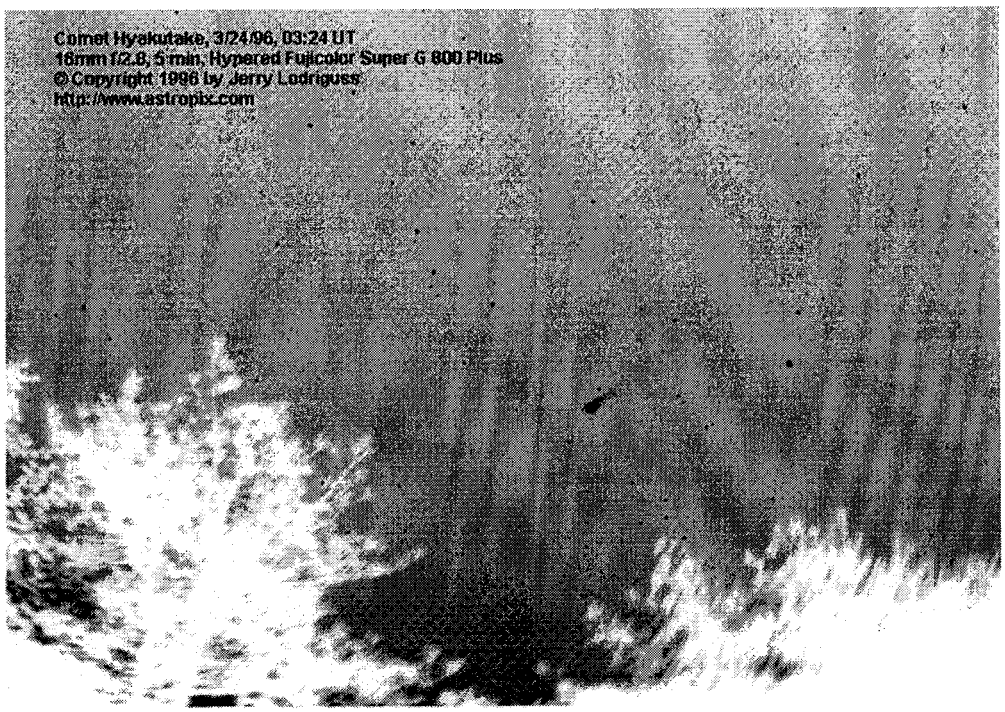
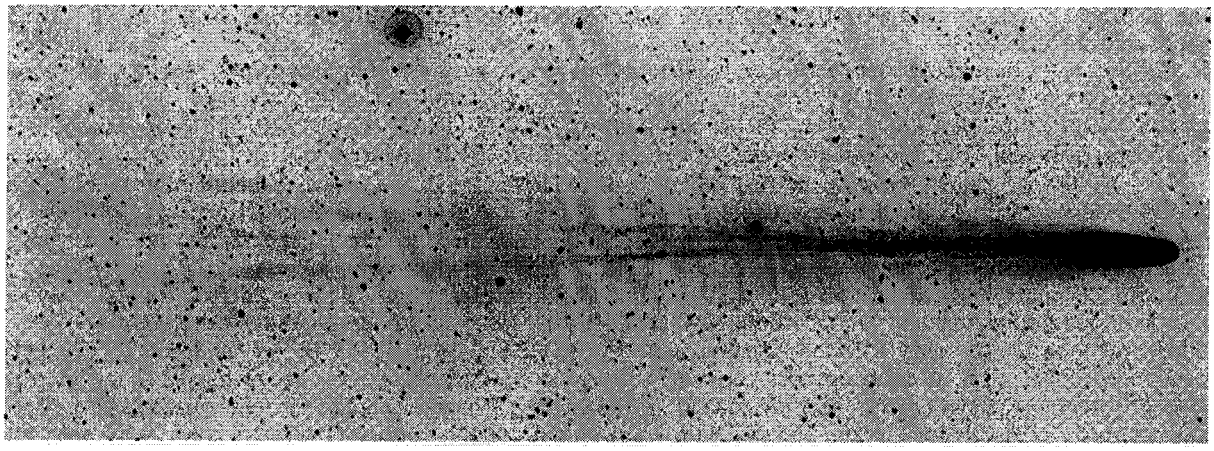
Below: ***Photograph of C/1996 B2 (Hyakutake) taken by Jerry Lodriguss of Voorhees, New Jersey, with a 16-mm f/2.8 camera lens: 5-min exposure on hypered Fujicolor Super G 800 Plus film, on March 24.14. The comet lies nearly midway between the handle of the Big Dipper (upper left) and the 0th-magnitude star Arcturus (just below right center).***





Above: *CCD mosaic of C/1996 B2 (Hyakutake) taken as two consecutive 5-min frames beginning 1996 April 14.794 UT by Herman Mikuž and colleagues in Slovenia. A 180-mm camera lens was used at f/2.8, with a narrow-band H_2O^+ filter (bandpass centered at 620 nm; FWHM = 10 nm). The field-of-view is 6°.6 × 2°.4.*

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longer evident, but there are two fountains or jetting structures at p.a. 95° and on the sunward side at p.a. 270°, giving the comet's coma a very distinct, bright 'V' shape w/ a dark, elliptical area or shadow at p.a. 45°; star-like nucleus now larger (30″) and slightly elongated E/W, although seeing too poor for the structure to be readily seen [SPR]. Mar. 30.11: w/ 10×50 B, 22′ coma, DC = 7 [BOR]. Mar. 30.14: w/ naked eye, easy star-like nuclear region, and tail begins as wide as coma; w/ 7×42 B, overall coma has yellowish hue, straight diffuse dust tail 8° long; the gas tail traces N dust tail border [ZAN]. Mar. 30.19: w/ 20-cm *f*/10 T (225×), there are three fountains or jetting structures on the sunward side, giving the comet's coma a very distinct shape; these structures were more 'blurred/blended' when a Lumicon Swan-Band filter (81×) was used (Mar. 29.2) [SPR]. Mar. 30.27: in moonlight; after moonset (Mar. 30.58), tail 70° long [OME]. Mar. 30.35: w/ naked eye, 19° tail in p.a. 44° [BOR]. Mar. 31.06: w/ 10×50 B, 18′ coma, DC = 7 [BOR]. Mar. 31.08: star-like nucleus, $m_2 = 6.5$: [BAR06]. Mar. 31.14: comet head 10° above horizon; tail easy to 20°; easy disk-like central cond. to the unaided eye; w/ 7×42 B, parabolic coma w/ central cond. and star-like or small disk-like nuclear region, obvious diffuse dust tail, nearly 8° long (the gas tail traces N dust tail border), delicate and faint spine; w/ 15-cm L (125×), sunward fan nearly 100° wide [ZAN]. Mar. 31.87: in 25.4-cm J (58×, 143×), strong stellar cond.; sunward fan some 60° wide w/ little detail, bifurcation suspected; tail spine long but rather faint; parabolic envelope of coma, extending down the tail; general view of comet similar to that of 1P/Halley on 1835 Oct. 30 as seen in a drawing of H. Schwabe (*Atlas of Cometary Forms*, NASA SP-198, p. 7) [BOU].

Apr. 1.75: star-like nucleus, $m_2 \simeq 5.7$; tail open in p.a. 35°-55° [BAR06]. Apr. 1.83: as on Mar. 28.87, cond. seen at 65″ [BIV]. Apr. 3.95: w/ 7×50 B, 18′ coma, 3°.4 tail in p.a. 49° [SKI]. Apr. 3.976-4.037: observations made during total eclipse of moon [several observers of several comets]. Apr. 4.83 and 5.83: w/ 15-cm R (75×), 15′ coma, DC = 6, 3° tail in p.a. 51° [DIE02]. Apr. 6.82: to naked eye, circular coma w/ star-like nuclear region; w/ 7×42 B, parabolic coma and faint, spherical halo, star-like nuclear region and tail (probably dust) broader than coma; delicate and faint spine; w/ 25×150 B, traces of the sunward fan nearly 90° wide in the coma, yellowish hue suspected [ZAN]. Apr. 7.10: w/ 7×50 B, coma dia. ~ 15′, 2°.5 tail in p.a. 30° [DIL]. Apr. 7.82: w/ 35-mm *f*/2.8 lens (+ *V* filter + ST-6 CCD; field-of-view 13°.8 × 10°.5), tail length 14° (frame edge) [MIK]. Apr. 7.82: w/ 7×42 B, parabolic coma w/ star-like nuclear region; coma dia. 11′; very broad tail [ZAN]. Apr. 8.07: w/ 7×50 B, coma dia. ~ 15′, 4°.0 tail in p.a. 30° [DIL]. Apr. 8.27: dust tail 7° long; gas tail quite faint after first 30° of length [OME]. Apr. 9.25: dust tail 7° long [OME]. Apr. 9.82: w/ naked eye, small coma w/ compact disk-like central cond.; w/ 7×42 B, parabolic coma, dia. nearly 10′ w/ star-like nuclear region and broad tail (less broad than on Apr. 7), very slightly curved to the S; w/ 25×150 B, traces of sunward fan nearly 90° wide in the coma; yellowish hue [ZAN]. Apr. 9.82: mosaic frames taken to determine the full length of tail, which may be traced to 22° from the comet nucleus; straight, narrow tail of rather uniform surface brightness is present between nucleus distances ~ 10° and 22° [MIK]. Apr. 11.89 and 14.89: w/ 7×50 B, 10′ coma [HEE]. Apr. 12.81: poor conditions, through cirrus clouds [GAR02]. Apr. 12.82: w/ 7×42 B, very small parabolic coma of dia. 9′, DC = 8, w/ very bright disk-like central cond.; very broad tail [ZAN]. Apr. 14.82: to naked eye, bright nuclear region; w/ 7×42 B, parabolic coma w/ small disk-like central cond.; broad tail 8°-10° long; w/ 25×150 B, very sharp parabolic coma w/ small vertex distance, suspected yellowish hue in the coma; broad dust tail, 8° long, w/ spine [ZAN]. Apr. 14.90: 16° tail in p.a. 45° [HIL02]. Apr. 14.90: w/ 7×50 B, DC = 8, 10° tail in p.a. 42° [SKI].

Apr. 15.82: w/ 7×42 B, 8° tail in p.a. 45°; in 25×150 B, "coma has colors as never seen before (nuclear region and brighter inner parts are yellow; easy green hue for the border region of the parabolic envelope; faint outer halo is fluorescing blue, while the tail begins sharp and white!); jet at p.a. 45° nearly 1′ long; N tail border is brighter and sharper than S one" [ZAN]. Apr. 15.84: comet much brighter and much more condensed than the day before, w/ a brilliant false nucleus (looked almost stellar to the naked eye); w/ 20.3-cm T (77×), the false nucleus appeared elongated due to at

◇ *Comet C/1996 B2 (Hyakutake) [cont.]* ⟹ least one jet in p.a. ~ 320°; steep brightness gradient in sunward direction; coma and tail appeared as a parabola, leaving an area of low brightness tailward, immediately following the innermost bright coma [KAM01]. Apr. 15.84: w/ 9×63 B, DC = S8-9, tail 7° long in p.a. 40°; comet much brighter and more condensed than on Apr. 14, w/ a brilliant false nucleus; almost stellar to the naked eye; w/ 20.3-cm T (77×), false nucleus appeared elongated due to at least one jet in p.a. ~ 320°; steep brightness gradient in sunward direction; coma and tail appeared as a parabola, leaving an area of low brightness tailward, immediately following the innermost bright coma [KAM01]. Apr. 16.82: w/ 7×42 B, bifurcated tail, 18° gas tail in p.a. 36° and 12°, slightly curved dust tail in p.a. 54°; several easy ray structures and a spine in the gas tail, while dust tail shows streamers (synchrones?) and one easy, sharp, dark stria close to the point where the two tails merge; the stria doesn't point toward the coma but slightly to the N [ZAN]. Apr. 16.83: coma significantly weaker and less condensed than yesterday (through cirrus); w/ 9×63 B, coma dia. 6′, DC = S7, tail ~ 5° long [KAM01]. Apr. 16.88: w/ 7×50 B, DC = 8, 9° tail in p.a. 40° [SKI]. Apr. 16.90: w/ 10×50 B, 3°.4 tail in p.a. 49° [GRA04]. Apr. 17.84: as on Apr. 1.83, cond. seen at 30″ [BIV].

Apr. 18.82: w/ 7×42 B, parabolic coma has prominent disk-like nuclear region; w/ 25×150 B, only traces of yellowish hue in the inner coma; delicate spine [ZAN]. Apr. 19.03: w/ 12×50 B, coma dia. ~ 4′, DC ~ 7-8, tail ~ 5°-10° long; m_1 = 2.4 ± 0.4 via naked eye [GRE]. Apr. 19.82: in deep twilight (faintest naked-eye star near comet had mag 3.5); central cond. of mag 4.5; w/ 20.3-cm *f*/10 T (50×), 3′ coma, DC = S8 [KAM01]. Apr. 19.82: to naked eye, nearly star-like coma w/ small faint diffuse halo; w/ 7×42 B, nearly-stellar nuclear region w/ faint, diffuse, parabolic coma; the cond. is not far from touching parabola's vertex; tail 22° long in p.a. 41° [ZAN]. Apr. 20.82: w/ 7×42 B, small coma w/ prominent nuclear region and broad tail; w/ 25×150 B, coma dia. 3′, slight yellowish hue, delicate spine [ZAN]. Apr. 21.82: w/ 7×42 B, small coma w/ very prominent nuclear region and broad tail; w/ 25×150 B, coma dia. 3′, slight yellowish hue; delicate spine [ZAN]. Apr. 22-24: extinction applied from July 1992 *ICQ* Table Ic (w) [OME]. Apr. 24.81: w/ 7×42 B, small coma w/ very prominent nuclear region and broad tail [ZAN]. Apr. 24.83: strong twilight; central cond. of mag 3.5 [KAM01]. Apr. 25.03: significantly more haze around star than around comparison stars above comet [GRE].

◇ *Comet 6P/d'Arrest* ⟹ 1995 July 22.00: "the first measure obtained was m_1 = 12.7, w/ the small coma listed in the tabulation; in fact, almost all of the 15′.7 × 15′.7 field was 'inside' a very tenuous coma; as the visual estimates were more than 3 mag brighter w/ the indication of a very large coma, I have made a second measure w/ an arbitrary 11′ photometric aperture, which leads to $m_1 \simeq 9$ (after subtracting several nearby stars) [GAR02]. Oct. 20.96: ST6 CCD camera, from La Reunion island; coma was elliptical (size 4′.3 × 3′.5), axis toward p.a. 48° [KLO and G. Sautot].

◇ *Comet 19P/Borrelly (O.S. 1994l)* ⟹ 1995 Apr. 30.94: comet image maybe underexposed; all observations made from Orcieres-Merlette (Hautes Alpes, France, elevation 1835 m) w/ Celestron 8 *f*/10 telescope (+ Alpha 500, Air verson, CCD camera) [GAR02]. June 26/27: observations through a thin layer of (uniform?) cirrus [GAR02].

◇ *Comet 29P/Schwassmann-Wachmann 1* ⟹ 1996 Jan. 27.04: comet detected near the limit of the *S/N*; no motion detected, but there is nothing at this position on the Palomar Sky Survey chart [KLO]. Feb. 21.06: apparently stellar cond. surrounded by a faint coma, like a small planetary nebula; m_1 = 11.7 w/ ref AC (X Leo) [GRA04]. Feb. 23.06: comet appeared more extended and less condensed than during the previous nights [GRA04]. Feb. 24.86: w/ 36-cm *f*/6.8 T (+ *V* filter + CCD), comet is sharply edged, oval, inner coma of dia. 55″; tenuous outer halo [MIK]. Feb. 25.07: at 250×, hint of a secondary nodosity (elongated toward NE) in the coma, SW from the central cond. [FAU]. Feb. 27.84: obs. as on Feb. 24.86, comet is sharply edged, oval inner coma; tenuous outer halo [MIK]. Feb. 28.10: no enhancement w/ a Lumicon Swan Band Filter [MEY]. Mar. 11.84: new outburst; stellar nucleus of mag 12.7 w/in large, diffuse coma [BOU].

◇ *Comet 41P/Tuttle-Giacobini-Kresák* ⟹ 1995 Oct. 24.75: comet low in the sky, faint and very diffuse; field checked on 1996 Mar. 22/23 with 27.9-cm L (+ CCD) to confirm that 41P was indeed observed five months earlier [GAR02].

◇ *Comet 45P/Honda-Mrkos-Pajdušáková* ⟹ 1996 Jan. 29.23: comet close to μ Oph [BOU]. Jan. 30.21: comet brighter and denser w/ Lumicon Swan Band Filter [MEY]. Jan. 31.75: w/ 7×50 B, mag 7.0 ± 0.5 (MM: S), coma dia. 18′; "quite a sight with M12, M10, and 45P in a line — all of comparable brightnesses, though 45P is much larger" [MCN]. Feb. 1.16: very diffuse, extremely large, round coma of size 37′ [BAR06]. Feb. 1.21: comet definitely brighter and more condensed than on previous morning [BOU]. Feb. 2.10: w/ 24-cm *f*/6 L (32×), 30′ coma, DC = 2 [MAI]. Feb. 24.17: comet at limit of detection [KAM01]. Feb. 24.95 and 28.12: comet barely visible [MEY].

◇ *Comet 58P/Jackson-Neujmin* ⟹ 1995 Nov. 22.84: comet near threshold of visibility [MEY].

◇ *Comet 67P/Churyumov-Gerasimenko* ⟹ 1996 Jan. 11.74: comet involved w/ star of mag 11, slightly enhanced w/ Lumicon Swan Band Filter [MEY]. Jan. 15.79: starlike central cond. suspected [MEY]. Feb. 6.75 and 7.79: interference by nearby star of mag 9 [MEY]. Feb. 16.45: fan-shaped coma in p.a. 60°-180° [YUS]. Feb. 19.43: 1′.4 anti-tail in p.a. 230° [NAK01]. Feb. 25.16: comet close to first-quarter moon, very difficult [SPR].

◇ *Comet 73P/Schwassmann-Wachmann 3* ⟹ 1995 Oct. 13.01: elongated coma measuring 1′.1 × 4′ and a very strong, near-stellar cond. of mag 7.6 [KRO02]. Oct. 15.02: strong, near-stellar cond. of mag 8.4 [KRO02]. Oct. 19.01: strong, near-stellar cond. of mag 9.1 [KRO02]. Nov. 24.71: comet only 5° above the horizon [MEY]. 1996 Jan. 11.73: comet barely visible, ill-defined coma, Lumicon Swan Band Filter does not enhance the comet [MEY]. Jan. 16.73: comet was an irregular, faint patch of light [MEY].

◇ *Comet 95P/Chiron* ⟹ 1996 Feb. 17.35: V–R = +0.42 ± 0.08; V–I = +0.71 ± 0.11; coma not detected [FER].

◇ *Comet 116P/Wild 4* ⟹ 1996 Jan. 19.00: w/ Lynxx PC CCD camera, no variation > 0.1 mag was observed during 1 hr [KLO]. Feb. 15.57: broad, faint tail eastward; somewhat bright in p.a. 30° and 110° [NAK01]. Mar. 22.91: scale 1″.4/pixel, field 12′ × 12′; second tail 1′.8 long in p.a. 51° [GAR02]. Apr. 4.02-4.03: observations during total lunar eclipse [MAR02, SAN04].

◇ *Comet 122P/1995 S1 (de Vico)* ⟹ 1995 Sept. 26.13: clearly brighter w/ Lumicon SB-Filter [MEY]. Oct. 5.14: narrow and straight plasma tail [MEY]. Oct. 23.42: w/ 40.6-cm *f*/5 L (70×), coma dia. 3′.4, DC = 7 [BOR].

◇ *Comet P/1996 A1 (Jedicke)* ⟹ 1996 Feb. 24.92: fan-like tail ~ 2′ long in p.a. ~ 305° [MIK].

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The comparison-star code **AE** was initially brought in for use with the bright-star photometry listed in the *American Ephemeris and Nautical Almanac*, but this code is now also used for the *Astronomical Almanac*, which is the new name of the *AENA*. New addition to the comparison-star reference Key:
YG = Yale Catalogue of Bright Stars, fifth edition [note that **YF** = fourth edition, and **Y** = earlier editions]

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TABULATED DATA

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

"MM" = the method employed for estimating the total visual magnitude [B = Bobrovnikoff, M = Morris, S = Sidgwick, C = unfiltered CCD integration, c = same as 'C', but for nuclear magnitudes, V = electronic observations — usually CCD — with Johnson *V* filter, *etc.* — see October 1980 issue of *ICQ*, pages 69-73]. "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 page 60 of the April 1993 issue, for all of the 1- and 2-letter codes). "AP." = aperture in centimeters of the instrument used for the observations, usually given to tenths. "T" = type of instrument used for the observation (R = refractor, L = Newtonian reflector, B = binoculars, C = Cassegrain reflector, A = camera, T = Schmidt-Cassegrain reflector, S = Schmidt-Newtonian reflector, E = naked eye, *etc.*). "F/" and "PWR" are the focal ratio and power or magnification, respectively, of the instrument used for the observation — given to nearest whole integer (round even).

"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 abbrevations used in the *ICQ* is available from the Editor for $4.00 postpaid (available free of charge via e-mail). *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 (and p. 10 of the January 1995 issue) for further information [note correction on page 140 of the October 1993 issue]. Further guidelines concerning reporting of data may be found on pages 59-60 of the April 1993 issue.

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Key to observers with observations published in this issue, *with 2-digit numbers between Observer Code and Observer's Name indicating source [07 = Comet Section, British Astronomical Assn.; 16 = Japanese observers (c/o Akimasa Nakamura, Kuma, Japan); 23 = Czech group (c/o P. Pravec and V. Znojil); 32 = Hungarian group (c/o K. Sarneczky); 39 = French observers (c/o S. Garro); 40 = Portuguese observers (c/o A. Pereira); etc.]. Those with asterisks (*) preceding the 5-character code are new additions to the Observer Key:*

*ADA03		Brian Adams, IA, U.S.A.
BAK01	32	Gaspar Bakos, Budapest, Hungary
*BAL02	33	Ricardas Balciunas, Lithuania
BAR	36	Sandro Baroni, Italy
BAR05	32	Lewiss Bartha, Hungary
BAR06		Alexandr R. Baransky, Ukraine
BEA	07	Sally Beaumont, England
BEC01		Stefan Beck, Stuttgart, Germany
BIV		Nicolas Biver, France
*BOJ	32	Nora Boja, Solymar, Hungary
BOR		John E. Bortle, NY, U.S.A.
BOU		Reinder J. Bouma, Netherlands
BRO04		Eric Broens, Belgium
CHE		G. R. Chester, VA, U.S.A.
CHE03	33	Kazimieras T. Cernis, Lithuania
*CSO	32	Tibor Csorgei, Slovak Republic
DAH	24	Haakon Dahle, Norway
*DAR	38	Adolfo Darriba, Madrid, Spain
DEM01	33	Andrej Dementjev, Lithuania
DES01		Jose G. de Souza Aguiar, Brazil
DIE02		Alfons Diepvens, Belgium
DIL		William G. Dillon, VA, U.S.A.
DIM	36	Alessandro Dimai, Italy
DOH	07	Paul B. Doherty, England
DVO	23	Denisa Dvorakova, Czech Republic
*FAU	39	Gerard Faure, France
FER		Ignacio Ferrin, Venezuela
*FIL05	37	Alexander V. Filatov, Ukraine
*FOR01	32	Zoltan Forgacs, Hungary
GAL	38	Jesus Gallego Maestro, Spain
GAR02		Stephane Garro, France
GAS01	33	Darius Gasiunas, Lithuania
GOM	38	Angel Gomez (Roldan), Spain
GON04	40	Rui Goncalves, Portugal
GRA04	24	Bjoern Haakon Granslo, Norway
GRE		Daniel W. E. Green, U.S.A.
HAS02		Werner Hasubick, Germany
HAS08	16	Yuji Hashimoto, Hiroshima, Japan
HAV	36	Roberto Haver, Italy
HEE	24	Lars Trygve Heen, Norway
HIL02	24	Trond Erik Hillestad, Norway
HOR	32	Tibor Horvath, Hungary
HOR02	23	Kamil Hornoch, Czech Republic
*ISH03	37	Andriy S. Ishchenko, Ukraine
KAM01		Andreas Kammerer, Germany
KAN	16	Kiyotaka Kanai, Japan
KAT01	16	Taichi Kato, Japan
KER	32	Akos Kereszturi, Hungary
KES01	32	Sandor Keszthelyi, Pecs, Hungary
KES02	32	Daniel Keszthelyi, Hungary
*KHA01	37	Vadim P. Khanacuyk, Ukraine
KIE01	07	Norman S. Kiernan, England
KIN	16	Kazuo Kinoshita, Japan
KIS02	32	Laszlo Kiss, Szeged, Hungary
*KLO	39	Alain Klotz, Castres, France
KOB01	16	Juro Kobayashi, Japan
KON03	16	Eitoshi Konno, Japan
*KON06	23	Jiri Konecny, Czech Republic
KRO02		Gary W. Kronk, IL, U.S.A.
KUC01	23	Jan Kucera, Czech Republic
*KVA	24	Jan T. Kvaloey, Norway
KYS	23	J. Kysely, Czech Republic
LAN02	32	Zsolt Lantos, Budapest, Hungary
*LEP	39	Xavier Leprette, France
*LON	38	Antonio Longarela, Spain
LOS	38	Rodrigo Losada, Spain
LOU	35	Romualdo Lourencon, Brazil
*LOZ01	37	Alexander G. Lozichuk, Ukraine
MAI	37	Alexander S. Maidic, Ukraine
MAR02	38	Jose Carvajal Martinez, Spain
MAR03		Brian G. Marsden, MA, U.S.A.
*MAR17	07	Nick Martin, United Kingdom
MCN		Robert H. McNaught, Australia
MER		Jean-Claude Merlin, France
MEY	28	Maik Meyer, Germany
MIK		Herman Mikuz, Slovenia
MIL02		Giannantonio Milani, Italy
MIZ01	32	Attila Mizser, Budapest, Hungary
MOE		Michael Moeller, Germany
MOR06	16	Masayuki Moriyama, Japan
NAG02	16	Takashi Nagata, Hyogo, Japan
NAK01	16	Akimasa Nakamura, Japan
*NUZ	36	Roberto Nuzzo, Feltre, Italy
*OGA01	37	Sergei A. Ogarkov, Kiev, Ukraine
OHM	16	Fumihiko Ohmori, Japan
*OKS	07	Gabriel Oksa, Slovak Republic
OLE	18	Arkadiusz Olech, Poland
OME		Stephen O'Meara, MA, U.S.A.
*PAC02	07	Alexei Pace, Marsaxlokk, Malta
*PAK	33	Vaclovas Pakalniskis, Lithuania
PAP02	32	Sandor Papp, Kecskemet, Hungary
PEA		Andrew R. Pearce, Australia
PER01		Alfredo J. S. Pereira, Portugal
PLS	23	Martin Plsek, Czech Republic
POD	23	M. Podzorny, Czech Republic
POP	23	Martin Popek, Czech Republic
PRA01	23	Petr Pravec, Czech Republic
PUJ01	38	Francisco Pujol (Clapes), Spain
*RED	37	Sergei Red'ko, Kiev, Ukraine
RIP	38	Jose Ripero Osorio, Spain
ROG02	07	John H. Rogers, England
ROQ		Paul Roques, AZ, U.S.A.
*ROS02	36	Gabriele Rosolen, Italy
*RUI01	38	Javier Ruiz Fernandez, Spain
SAI	38	Javier Sainz, Madrid, Spain
SAN04	38	Juan Manuel San Juan, Spain
*SAN05	38	Alberto Sanchez Caso, Spain
*SAN06	38	Florentino Sanchez Bajo, Spain
SAR02	32	Krisztian Sarneczky, Hungary
*SCH13	32	Attila Schne, Hungary
SCO01		James V. Scotti, AZ, U.S.A.
SCO04	37	Borys Skorichenko, Ukraine
SHA02	07	Jonathan D. Shanklin, England
SHI	16	Hiroyuki Shioi, Japan
SKI	24	Oddleiv Skilbrei, Norway
SKJ	24	Olaf Skjaeraasen, Norway
SPR		Christopher E. Spratt, Canada
*STE12	33	Domas Steponenas, Lithuania
SZA	32	Sandor Szabo, Sopron, Hungary
SZA02	32	Levente Szarka, Hungary
SZA04	32	Gyula Szabo, Szeged, Hungary
SZE02	32	Laszlo Szentasko, Hungary
*SZL	32	Ervin Szlanicska, Slovak Repub.
SZO01	32	Attila Szollosi, Hungary
TAK05	16	Kesao Takamizawa, Japan
THO03	24	Steinar Thorvaldsen, Norway
TRI		Josep Ma Trigo Rodriguez, Spain
*TRI01	38	Josep Maria Trigo, Spain
TSU02	16	Mitsunori Tsumura, Japan
TUB	32	Vince Tuboly, Hungary
VAN04		Tony VanMunster, Belgium
VAN06	36	Gabriele Vanin, Italy
*VAS02	33	Vitalis Vasylius, Lithuania
VEL03		Peter Velestschuk, Ukraine
*VIN02	07	Alex Vincent, Worthing, England
*VIT01	40	Catarina Vitorino, Portugal
YAS	16	Masanori Yasuki, Japan
*YOS04	16	Seiichi Yoshida, Ibaraki, Japan
YUS	16	Toru Yusa, Kogota, Miyagi, Japan
*ZAG01	32	Balazs Zagoni, Hungary
ZAN		Mauro Vittorio Zanotta, Italy
ZNO	23	Vladimir Znojil, Czech Republic

Comet C/1975 V1 (West)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1976 03 02.86		M	-0.1	SC	3.0	B		8	2		2		KAT01
1976 03 03.86		M	0.7	SC	3.0	B		8	2		3		KAT01
1976 03 04.85		M	1.4	SC	3.0	B		8	2		>2		KAT01

Comet C/1994 J2 (Takamizawa)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 11 21.74		C	15.1	GA	60.0	Y	6		0.7				NAK01
1995 12 17.68	a	C	15.0	GA	60.0	Y	6		0.85			230	NAK01
1995 12 22.65	a	C	15.1	GA	60.0	Y	6		1.1				NAK01
1996 01 24.65	a	C	15.5	GA	60.0	Y	6		0.85			200	NAK01
1996 02 16.46		C	16.7	HS	20.6	T	6		0.5				YUS
1996 04 07.46	a	C	16.9	GA	60.0	Y	6		0.45				NAK01

Comet C/1995 O1 (Hale-Bopp)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 08 17.88		S	10.6	NP	44.5	L	5	100	1.5	4			MAR02
1995 08 18.90		S	10.4	NP	44.5	L	5	100	3	4			MAR02
1995 08 25.90		B	9.3	S	44.5	L	5	100	5	5			RIP
1995 08 25.90		B	9.6	NP	44.5	L	5	100	0.8	7			SAN04
1995 08 25.90		M	9.6	NP	44.5	L	5	100	2.5	6			MAR02
1995 08 26.89		B	9.5	S	44.5	L	5	100	3	6			RIP
1995 08 26.89		B	9.8	NP	44.5	L	5	100	2.0	6			SAN04
1995 08 26.89		M	9.7	NP	44.5	L	5	100	1.8	7			MAR02
1995 09 16.84		S	9.9	NP	21.0	L	6	60	4	2			MAR02
1995 10 12.98	a	S	10.4	AC	40.6	L	5	70	1.2	6			BOR
1995 10 17.77		S	11.8	HS	20.3	T	10	80	1.0				FAU
1996 02 09.85		C	9.2	HS	20.6	T	6		3.1				YUS
1996 02 10.87		C	9.3	HS	41.0	L	6		3.0				KOB01
1996 02 18.32		S	8.7	AA	8.0	B		11	3	4			DES01
1996 02 19.33		S	8.7	AA	8.0	B		11	3	3/			DES01
1996 02 20.33		S	8.8	AA	8.0	B		11	3	4			DES01
1996 02 21.32		S	8.7	AA	8.0	B		11	3	4			DES01
1996 02 22.33		S	8.7	AA	8.0	B		11	3	3/			DES01
1996 02 23.33		S	8.7	AA	8.0	B		11	3.5	3/			DES01
1996 02 24.32		S	8.7	AA	8.0	B		11	3.5	4			DES01
1996 02 24.77		S	8.7	AA	8.0	B		20	4.5	4			PEA
1996 02 25.24		S	8.9	S	44.5	L	5	100	4	4			SAN04
1996 02 25.32		S	8.7	AA	8.0	B		11	3.5	4			DES01
1996 02 27.62		B	9.0	S	5.0	B		7	7	5			BIV
1996 02 28.85		M	8.7	S	12.5	L	6	60					TSU02
1996 03 01.18	!	V	9.1	AA	20.0	T	2		& 4	6			MIK
1996 03 02.76		S	8.7	AA	8.0	B		20	3.5	5			PEA
1996 03 03.83		C	8.8	HS	20.3	T	6		3.4				YUS
1996 03 05.84	a	C	8.6	GA	8.0	R	6		7.5				NAK01
1996 03 11.32		S	8.6	AA	8.0	B		11	3.5	4/			DES01
1996 03 12.33		S	8.6	AA	8.0	B		11	3.5	4			DES01
1996 03 13.31		S	8.6	AA	8.0	B		11					DES01
1996 03 14.32		S	8.6	AA	8.0	B		11					DES01
1996 03 15.82		S	8.2	S	15.0	R	5	25	5	4			NAG02
1996 03 17.11	&	S	8.3	AA	11	L	7	56	4.5	3			BAR06
1996 03 17.30		S	8.5	AA	8.0	B		11	3	4			DES01
1996 03 18.11	&	S	8.2	AA	11	L	7	56	4.7	3			BAR06
1996 03 18.28		S	8.5	AA	8.0	B		11	3	4			DES01
1996 03 19.19		K	8.9	S	7.0	B		10	6	4			MAR02
1996 03 20.81		S	8.3	S	15.0	R	5	25	5	4/			NAG02
1996 03 21.28		S	8.5	AA	8.0	B		11	3.5	4			DES01
1996 03 22.27		S	8.5	AA	8.0	B		11	3	4			DES01
1996 03 23.70		S	8.2	AA	8.0	B		20	5.5	5			PEA
1996 03 23.79		S	8.3	S	15.0	R	5	25	5	4/			NAG02
1996 03 24.27		S	8.6	AA	8.0	B		11	3	3/			DES01
1996 03 25.28		S	8.5	AA	8.0	B		11	3	4			DES01
1996 03 25.80		S	8.3	S	15.0	R	5	25	5	4			NAG02

Comet C/1995 O1 (Hale-Bopp) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 26.10	&	S	8.6:	AA	11	L	7	56	& 4	2			BAR06
1996 03 28.12		M	8.5	TI	35	L	5	92	2	4			HOR02
1996 03 28.13		M	8.5	TI	35	L	5	92	2.6	2			PLS
1996 03 28.15		S	8.5	TI	11	L	7	32	2	5			KYS
1996 04 01.29		S	8.5	AA	8.0	B		11	3.5	4/			DES01
1996 04 02.29		S	8.5	AA	8.0	B		11	3	4			DES01
1996 04 03.30		S	8.5	AA	8.0	B		11	3	3/			DES01
1996 04 14.11		M	8.2	HI	25.4	J	6	47	4.0	6	0.17	0	BOU
1996 04 14.12		M	8.1	HI	8.0	B		15	4.5	4			BOU
1996 04 14.13		M	8.1	HI	5.0	B		7		3			BOU
1996 04 14.30		S	8.4	AA	8.0	B		11	3	4			DES01
1996 04 15.12		S	8.1	HI	8.0	B		15	5.0	4			BOU
1996 04 15.29		S	8.4	AA	8.0	B		11	4	4			DES01
1996 04 16.11		S	8.2	S	20.3	T	10	50	2.2	s5			KAM01
1996 04 16.12		M	7.9	HI	25.4	J	6	47	4.5	6			BOU
1996 04 17.12		M	8.3	TI	35	L	5	92	2.5	3			HOR02
1996 04 17.12		S	8.3	AA	15.0	R		30	5	3			DIE02
1996 04 18.09		M	8.2	TI	35	L	5	92	3.3	3/			HOR02
1996 04 18.12		B	8.8	AA	17.8	L	6	42	5	4			TRI01
1996 04 18.15		B	8.8:	S	25.6	L		84	2.5	6			BIV
1996 04 18.16		S	7.9	AA	3.4	B		9	& 7	0			PER01
1996 04 18.16		S	8.1	AA	15.0	L	4	26	& 5.5	1			PER01
1996 04 18.24		S	8.2	AA	8.0	B		11	5	4			DES01
1996 04 19.12		B	8.2	AA	5.0	B		7	6	4			TRI01
1996 04 19.12		S	7.9	HI	8.0	B		15	5	6			BOU
1996 04 19.25		S	8.2	AA	8.0	B		11	5	4			DES01
1996 04 19.48					91.4	L	5		10.79		14.8m	253	SC001
1996 04 20.07		S	8.0	HD	6.0	B		20	5	4			SAR02
1996 04 20.09		S	8.5	GA	10.0	R	10	33	3.0	5			BEC01
1996 04 20.11		M	8.0	AC	25.4	J	6	47	& 5	5/			BOU
1996 04 20.29		S	8.2	AA	8.0	B		11	6	4/			DES01
1996 04 20.77		S	8.8	HS	25.4	T	6	60	5	4			YOS04
1996 04 20.78		S	7.5	S	15.0	R	5	25	6	5			NAG02
1996 04 21.06		S	7.9	HD	6.0	B		20	6	4/			SAR02
1996 04 21.19		S	7.7	AA	3.4	B		9	> 6	2/			PER01
1996 04 21.27		S	8.0	AA	8.0	B		11	6	4			DES01
1996 04 21.80	a	C	7.8	GA	8.0	R	6		12.4				NAK01
1996 04 22.08	&	S	8.0	HD	6.0	B		20	10	3			TUB
1996 04 22.14		S	8.8	S	10	B		14	3.1	5			SHA02
1996 04 22.17		S	7.5	AA	3.4	B		9	&12	4			PER01
1996 04 22.28		S	8.0	AA	8.0	B		11	6	4			DES01
1996 04 22.76		S	8.0	AA	20	L	5	36	4	S4			SHI
1996 04 22.78		S	8.4	HS	25.4	T	6	60	6	6			YOS04
1996 04 23.08	&	S	7.9	HD	6.0	B		20	10	3			TUB
1996 04 23.16		S	7.6	AA	3.4	B		9	> 6	3/			PER01
1996 04 23.58		M	7.8	SC	3.5	B		7					OME
1996 04 23.78		S	7.5	S	15.0	R	5	25	6	5			NAG02
1996 04 24.12		S	8.4	AA	10	B		14	4.7	4			SHA02
1996 04 24.16		S	7.7	AA	3.4	B		9	> 7	3			PER01
1996 04 25.12		S	8.3	AC	10	B		14	5.6	4	0.12	280	SHA02
1996 04 25.16		S	7.7	AA	3.4	B		9	& 5	5			PER01
1996 04 26.55		M	7.5	SC	3.5	B		7	20				OME
1996 04 28.11	!	S	7.5	VS	8.0	B		20					OKS

Comet C/1995 Q1 (Bradfield)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 09 26.14		S	7.8	S	13.0	L	6	36	& 2.5	3			MEY
1995 09 29.18		P	8.1	S	5	A			4	7			VIN02
1995 10 01.14	!	S	7.6	AA	8.0	B		15	5	4/			HAV
1995 10 05.14		S	7.9	AA	13.0	L	6	36	3	3			MEY
1995 10 07.14	!	S	8.0	AA	8.0	B		15	5	3/			HAV
1995 10 07.44		S	8.2	SC	33.3	L	4	58	5	2			KR002
1995 10 17.42	a	S	9.2	AC	40.6	L	5	70	2.4	4			BOR

Comet C/1995 Q1 (Bradfield) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 10 19.40	a	S	9.3	AC	40.6	L	5	70	2.0	3			BOR
1995 10 22.14		S	8.8	AA	13.0	L	6	36	5	3/			MEY
1995 10 22.16		S	8.9	AA	8.0	B		15	6.5	2			HAV
1995 10 22.16		S	9.0	AA	15.6	L	5	29	4.5	2/			BOU
1995 10 23.14		S	8.9	AA	13.0	L	6	36	4.5	2/			MEY
1995 10 23.15		S	11 :	HS	20.3	T	10	80	2.1	4			FAU
1995 10 23.41	a	S	9.4	AC	40.6	L	5	70	2.6	4			BOR
1995 10 24.14		S	8.8	AA	13.0	L	6	36	5	3			MEY
1995 10 24.17		S	9.1	AA	15.6	L	5	29	5.0	2/			BOU
1995 10 25.14		S	8.7	AA	13.0	L	6	36	5.5	3			MEY
1995 10 28.17		M	8.6	AC	25.4	J	6	58	4.0	3			BOU
1995 10 28.17		S	8.7	AC	8.0	B		15	4.5	2			BOU
1995 10 29.17		S	8.8	AC	15.6	L	5	29	4.5	2			BOU
1995 11 02.17		S	9.4	AC	15.6	L	5	29	5	2/			BOU
1995 11 05.19		S	9.5	AC	15.6	L	5	29	6	2			BOU
1995 11 16.02		S[	10.5	HS	33.3	L	5	55					SHA02
1995 11 18.03		S	9.4	S	10	B		14	11	1			SHA02
1995 11 19.01		S	8.9	S	10	B		14	13	2			SHA02
1995 11 20.98		S	11.2	AC	25.4	J	6	47	5	0			BOU
1995 11 25.83		S	11.5:	AC	25.4	J	6	58	4	0			BOU
1995 12 15.76		S[	12.5	AC	25.4	J	6	115	! 2.0				BOU
1995 12 15.82		O[	12.8	AC	20.3	T	10	77	! 1.0				GRA04
1996 02 09.74		O[	13.0	HS	35	L	5	158	! 1				HOR02

Comet C/1995 Y1 (Hyakutake)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 12 29.22	&	S	10.2	AC	13.0	L	6	36	3	3			MEY
1995 12 30.22	&	S	10.1	AC	13.0	L	6	36	3	3/			MEY
1996 01 20.22		S	9.5	HS	20.3	T	10	80	2.0	3			FAU
1996 01 22.20		M	8.7	TI	35	L	5	92	3	2			PLS
1996 01 22.20		S	8.8	AC	13.0	L	6	36	3.5	4/			MEY
1996 01 22.21		M	9.0	TI	35	L	5	92	4	2/			HOR02
1996 01 24.84		S	8.9	S	15.0	R	5	25	7	4/			NAG02
1996 01 26.43	a	S	8.3	AC	8.0	B		20	3.8	4			BOR
1996 01 26.85		S	8.8	S	15.0	R	5	25	7	4			NAG02
1996 01 27.83		S	8.8	S	15.0	R	5	25	6	4			NAG02
1996 01 29.21		S	8.8	HI	15.6	L	5	29	3.5	2/			BOU
1996 01 30.18		M	8.3	TI	35	L	5	66	4	2/			HOR02
1996 01 30.18		M	8.6	TI	35	L	5	66	3	3			PLS
1996 01 30.19		S	8.4	AC	13.0	L	6	36	4.5	4/			MEY
1996 01 30.21		S	8.8	HI	15.6	L	5	29	3.7	3			BOU
1996 01 31.17		M	8.3	TI	35	L	5	66	4	3			HOR02
1996 01 31.19		O[	9.2	TI	11	L	7	54	! 4				KYS
1996 01 31.19		S	8.2	AC	13.0	L	6	36	3.5	4/			MEY
1996 01 31.23		S	8.8	HI	15.6	L	5	29	3.2	3			BOU
1996 01 31.86		S	8.3	S	15.0	R	5	25	5	5			NAG02
1996 02 01.16		B	9.1	AA	11	L	7	32	4	5			VEL03
1996 02 01.18		M	8.1	TI	35	L	5	66	5.5	2/			HOR02
1996 02 01.19		M	8.5	TI	35	L	5	66	3.5	2/			PLS
1996 02 01.20		S	9.4:	TI	11	L	7	32	3	3			KYS
1996 02 01.22		S	8.7	HI	15.6	L	5	29	3.8	3/			BOU
1996 02 01.44		S	8.2	AC	8.0	B		20	5.5	5			BOR
1996 02 02.24		S	8.7	HI	15.6	L	5	29	3.5	3			BOU
1996 02 02.85		S	8.0	S	15.0	R	5	25	6	5			NAG02
1996 02 03.84		S	8.2	S	15.0	R	5	25	5	4/			NAG02
1996 02 09.81		C	9.6	HS	20.6	T	6		10.3				YUS
1996 02 10.84		C	12.9	HS	41.0	L	6		+ 1.1				KOB01
1996 02 17.19		S	8.2	AA	8.0	B		15	4	5	0.2	283	HAV
1996 02 18.14	w	S	8.3	AA	8.0	B	5	20	5	s5			MIL02
1996 02 18.17		S	8.5	AA	15.0	B		25	5	3			ZAN
1996 02 18.25		S	8.0	AA	3.4	B		9	& 4				PER01
1996 02 18.26		S	8.1	AA	15.0	L	4	26	& 5	5/			PER01
1996 02 18.29		S	8.6	AA	8.0	B		11	5	3/			DES01

Comet C/1995 Y1 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 19.14		S	8.6	AA	11	L	7	32	5	s3			BAR06
1996 02 19.20		S	8.6	AA	12.5	R	5	20	10	1			BEA
1996 02 19.29		S	8.4	AA	8.0	B		11	4	4			DES01
1996 02 20.29		S	8.5	AA	8.0	B		11	5	4			DES01
1996 02 20.84		S	8.3	S	15.0	R	5	25	5	5			NAG02
1996 02 21.16		S	8.2	S	20.3	T	10	80	3.5	3/			GRA04
1996 02 21.19		S	7.5	AA	15.0	R		75	5	6			DIE02
1996 02 21.20		S	8.7	AA	10	B		14	3.7	3			SHA02
1996 02 21.28		S	8.5	AA	8.0	B		11	5	5			DES01
1996 02 22.25		S	8.1	AA	3.4	B		9	& 4	3			PER01
1996 02 22.30		S	8.5	AA	8.0	B		11	5	4/			DES01
1996 02 22.77		I	8.2	HS	46.0	L	6	65	4	7			YOS04
1996 02 22.83		S	8.3	S	15.0	R	5	25	5	5			NAG02
1996 02 23.30		S	8.4	AA	8.0	B		11	6	5			DES01
1996 02 24.12		S	7.4	AC	44.5	L	5	82	6.5	5/			BAK01
1996 02 24.18		S	8.1	AC	10.0	B		25	2.5	4			HAS02
1996 02 24.19		S	8.3	S	20.3	T	10	50	3.5	5			KAM01
1996 02 24.30		S	8.5	AA	8.0	B		11	5	5			DES01
1996 02 24.84		S	8.5	AC	10	L	6	33	2.5	4			YAS
1996 02 25.11		M	8.3	AC	44.5	L	5	82	8	6			SAR02
1996 02 25.11		S	8.1	AC	6.0	B		20	6	3/			SAR02
1996 02 25.17		M	7.9	TI	35	L	5	66	3.9	3			HOR02
1996 02 25.17		S	8.1	AA	8.0	B		15	5	5	0.2	290	HAV
1996 02 25.23		K	8.5	S	7.0	B		10	12	3			MAR02
1996 02 25.23		M	8.4	S	44.5	L	5	100	14	5			SAN04
1996 02 25.30		S	8.5	AA	8.0	B		11	6	4/			DES01
1996 02 25.41		S	7.7	AC	5.0	B		10	6	5/			BOR
1996 02 25.41		S	7.8	AC	8.0	B		20	4.3	6			BOR
1996 02 25.53		c	19.1	FA	91.4	L	5		3.56		14.8m	256	SC001
1996 02 25.84		S	8.4	S	15.0	R	5	25	5	4/			NAG02
1996 02 26.12		S	8.1	AA	11	L	7	56	4	2			BAR06
1996 02 26.12		S	8.1	AC	6.0	B		20	6	3			SAR02
1996 02 26.15		S	8.3	AC	13.0	L	6	36	3	3/			MEY
1996 02 26.17		M	7.2	TI	8.0	B		10	8.5	2/			HOR02
1996 02 26.17		S	8.0	TI	8	R	4	17	4	6			KYS
1996 02 26.19		S	8.0	S	20.3	T	10	50	3.2	4/			KAM01
1996 02 26.19		S	8.4	AC	10.0	B		25	3.5	4			HAS02
1996 02 26.41		S	8.0	AC	5.0	B		10	7	6			BOR
1996 02 27.14		S	8.2:	AA	13.0	L	6	36	3	2/			MEY
1996 02 27.21		S	7.8	AA	10	B		14	3.9	4			SHA02
1996 02 27.40		S	7.8	AC	5.0	B		10	8	5			BOR
1996 02 27.40		S	7.8	AC	8.0	B		20	5.6	5			BOR
1996 02 27.64		B	8.4	S	5.0	B		7	7	7			BIV
1996 02 27.81		B	8.0	HS	25.4	T	6	60	4	6			YOS04
1996 02 28.10		S	7.9	AA	11	L	7	56	4	3			BAR06
1996 02 28.14		M	8.1	TI	35	L	5	66	3.5	2/			HOR02
1996 02 28.14		S	8.4	AC	13.0	L	6	36	3	3/			MEY
1996 02 28.17	!	V	8.7	YF	20.0	T	2		&10	7			MIK
1996 02 28.18		S	8.4	AC	10.0	B		25	2.2	4			HAS02
1996 02 28.21		S	7.9	AA	10	B		14	7.3	3			SHA02
1996 02 28.83		M	8.8	S	12.5	L	6	23					TSU02
1996 02 28.83		S	8.5	S	15.0	R	5	25	5	4/			NAG02
1996 02 29.13		S	7.8	AA	11	L	7	56	4.6	2			BAR06
1996 02 29.14		S	7.9	AA	11	L	7	56	4.6	2			ISH03
1996 02 29.15		S	7.9	AA	11	L	7	56	4.6	1			RED
1996 02 29.17		M	9.2	TI	35	L	5	66	3.5	2/			PLS
1996 02 29.17		S	8.1	HI	20.3	T	10	80	5.5	4			GRA04
1996 02 29.21		S	9.0	AA	11.0	L	4	36	7	2			TRI
1996 02 29.22		S	8.1	AA	10	B		14	5.1	3			SHA02
1996 03 01.40	a	S	8.1	AC	8.0	B		20	5.8	5			BOR
1996 03 01.40	a	S	8.4	AC	8.0	B		20					BOR
1996 03 02.19		S	8.4	HI	15.6	L	5	29	& 3	4/			BOU
1996 03 02.20		S	8.1	S	20.3	T	10	80	5.0	3/			GRA04
1996 03 02.77		S	8.7	AA	8.0	B		20	4	3			PEA

Comet C/1995 Y1 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 02.80		B	8.5	HS	25.4	T	6	60	4	6			YOS04
1996 03 02.82		S	8.5	S	15.0	R	5	25	5	4			NAG02
1996 03 03.18		M	8.0	TI	35	L	5	66	3	3			HOR02
1996 03 05.16		M	8.2	TI	35	L	5	66	3.3	3			HOR02
1996 03 05.77		B	9.2	HS	25.4	T	6	60	4	4			YOS04
1996 03 05.83	a	C	9.2	GA	8.0	R	6		6.9				NAK01
1996 03 09.16		M	8.8	TI	35	L	5	66	3.8	2/			HOR02
1996 03 09.17		S	8.4	S	20.3	T	10	50	3.5	3			GRA04
1996 03 09.82		S	8.7	S	15.0	R	5	25	4	3			NAG02
1996 03 11.20		B	9.3	S	25.6	L		84	2	5			BIV
1996 03 13.80		S	9.5	HS	25.4	T	6	60	4	2/			YOS04
1996 03 13.83		S	8.8	S	15.0	R	5	25	5	2/			NAG02
1996 03 15.81		S	8.7	S	15.0	R	5	25	5	3/			NAG02
1996 03 16.09		M	8.5	TI	35	L	5	66	4	3			HOR02
1996 03 17.03		S	8.2	AA	11	L	7	56	5.6	2			BAR06
1996 03 17.06		B	9.5:	AA	13.3	R	5	33	1.5	2			SCO04
1996 03 17.23		S	9.1	AA	15.0	L	4	26	& 2.5	3			PER01
1996 03 18.04		S	8.4	AA	11	L	7	56	5.1	2			BAR06
1996 03 19.09		B	9.1	S	12	R	5	27	& 3.5	3	&0.05		CHE03
1996 03 19.10		B	9.3	S	34	L	4	45	& 5	3	&0.05		GAS01
1996 03 19.16		K	9.1	S	7.0	B		10	6	3			MAR02
1996 03 19.18		B	9.3	S	25.6	L		42	3.5	4			BIV
1996 03 20.10		B	8.9	S	12	R	5	25	& 4	3/			CHE03
1996 03 20.11		M	8.6	TI	35	L	5	66	3.1	3			HOR02
1996 03 20.12		S	8.7	HD	6.0	B		20	8	2/			SAR02
1996 03 21.11		S	9.1	AC	13.0	L	6	36	3	2			MEY
1996 03 21.21		S	8.7	AA	15.0	L	4	26	& 3.5	3			PER01
1996 03 22.10		B	8.9	S	12	R	5	27	& 4	2/			CHE03
1996 03 22.11		B	9.1	S	12	R	5	27	& 4	3			GAS01
1996 03 24.18		B	9.3	NP	44.5	L		100	3.3	5			MAR02
1996 03 26.08		S	8.7	AA	11	L	7	56	6	2/			BAR06
1996 03 26.08		S	8.8	AA	11	L	7	32	5	1/			BAR06
1996 03 27.08		S	8.5	AA	11	L	7	32	6	4			BAR06
1996 03 27.13		M	8.8	AC	15.6	L	5	29	3.8	4			BOU
1996 03 27.18		S	8.9:	HS	10	B		14	4.8	2			SHA02
1996 03 28.10		M	9.6	TI	35	L	5	92	2.3	3/			HOR02
1996 03 28.13		S	9.0	TI	11	L	7	32	4.0	3			KYS
1996 03 28.15		S	8.6	S	9.0	M		39	4.0	3			KAM01
1996 03 28.50		c	19.4	FA	91.4	L	5		2.45		15.7m	281	SCO01
1996 03 29.12		S	9.1	HD	6.0	B		20	5	3			SAR02
1996 03 29.17		S	9.0	AA	10	B		14	5.8	3			SHA02
1996 03 30.14		S	9.7	AA	10	B		14	5.5	3			SHA02
1996 04 13.09		M	10.1	TI	35	L	5	104	2.3	2			HOR02
1996 04 13.09		S	10.2	HS	25.4	L	6	108	3.5	1/			GRA04
1996 04 14.11		S	9.3	AC	25.4	J	6	47	3.5	2			BOU
1996 04 16.09		M	9.7	TI	35	L	5	92	2.2	2			HOR02
1996 04 16.11		S	9.5	AC	25.4	J	6	58	3.6	2			BOU
1996 04 17.10		M	10.2	TI	35	L	5	92	2	3			HOR02
1996 04 18.10		M	10.1	TI	35	L	5	92	2.6	2			HOR02
1996 04 18.18		S	10.6	AC	25.3	L	6	57	> 2.5	2			PER01
1996 04 19.11		S	9.6	AC	25.4	J	6	58	3.5	1/			BOU
1996 04 20.08		S	9.6	HD	44.5	L	5	82	6	3			SAR02
1996 04 20.11		S	9.6	AC	25.4	J	6	47	4.0	2			BOU
1996 04 21.81	a	C	12.0	GA	60.0	Y	6		4.0		> 6.4m	292	NAK01

Comet C/1996 B1 (Szczepanski)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 29.75		S	8.8	AA	41.0	L	6	60	10.5	3/			KOB01
1996 01 30.15		M	9.2	TI	35	L	5	66	5	2			HOR02
1996 01 30.17		M	9.2	TI	35	L	5	66	6	2/			PLS
1996 01 30.20		S	8.2	HI	15.6	L	5	24	7	3			BOU
1996 01 30.21		S	9.0	HS	20.3	T	10	56	8	2/			LEP
1996 01 31.12		M	9.3	TI	35	L	5	66	5	3			HOR02

Comet C/1996 B1 (Szczepanski) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 31.18		S	8.1	AC	13.0	L	6	36	6.5	2/			MEY
1996 01 31.21		S	8.1	HI	15.6	L	5	24	7	3/			BOU
1996 01 31.85		S	8.7	S	15.0	R	5	25	9	3			NAG02
1996 02 01.17		M	9.0	TI	35	L	5	66	4.5	3			HOR02
1996 02 01.18		M	9.2	TI	35	L	5	66	4.5	3			PLS
1996 02 01.20		S	8.0	HI	15.6	L	5	24	7.5	3			BOU
1996 02 02.18	!	V	9.7	YF	20.0	T	2		& 8	5			MIK
1996 02 02.19		M	9.0	TI	35	L	5	66	4.5	3			HOR02
1996 02 02.19		S	9.8	TI	11	L	7	32	4	1			KYS
1996 02 02.20		M	9.0	TI	35	L	5	66	5.5	2			PLS
1996 02 02.23		S	8.0	HI	15.6	L	5	24	7.5	3/			BOU
1996 02 02.86		S	8.6	S	15.0	R	5	25	8	3			NAG02
1996 02 03.83		S	8.9	S	15.0	R	5	25	8	3			NAG02
1996 02 05.90		S	8.8:	AA	15.2	L	5	42	4.0	2			MOE
1996 02 06.70		S	8.5	AA	11	L	7	56	6.5	2			BAR06
1996 02 06.76		S	8.6	AC	13.0	L	6	36	4	2			MEY
1996 02 06.84		S	8.8	AA	15.2	L	5	42	4.0	2			MOE
1996 02 07.19		M	8.8	TI	35	L	5	92	4	2/			HOR02
1996 02 07.72		S	8.4:	AA	11	L	7	56	& 6	2			BAR06
1996 02 07.78		S	8.6	AA	15.2	L	5	42	7.0	1			MOE
1996 02 07.80		M	9.0	TI	30	L	5	40	4				POP
1996 02 08.81		S	9.0	AA	15.2	L	5	42	5.0	1			MOE
1996 02 09.56		C	9.1	HS	20.6	T	6		11.6				YUS
1996 02 09.77		M	8.4	TI	10	B		25	6.5	2			ZNO
1996 02 09.77		S	9.0	AA	15.2	L	5	42	5.0	1			MOE
1996 02 09.86		S	8.4	AC	13.0	L	6	36	5.5	2/			MEY
1996 02 09.88	!	V	8.8	YF	20.0	T	2		&15	5			MIK
1996 02 10.16	a	S	8.7	AC	8.0	B		20	7.5	3			BOR
1996 02 10.73		S	8.4	HD	11	L	7	56	7.2	s3			BAR06
1996 02 10.77		C	10.8	HS	41.0	L	6		4.0				KOB01
1996 02 11.12		S	8.2	AA	20.0	T	10	64	7	2			SPR
1996 02 11.61		S	9.1	AA	10.5	R	7	23	13	3			HAS08
1996 02 11.85		K	8.1	S	5.0	B		7	5	4			TRI
1996 02 11.90		M	8.4	S	21.0	L	6	60	4	4			SAN04
1996 02 11.90		M	8.8	S	21.0	L	6	60	8	3			MAR02
1996 02 12.05		S	8.3	AC	10.0	B		25	7.4	3			HAS02
1996 02 12.16	a	S	8.6	AC	8.0	B		20	7.5	3/			BOR
1996 02 13.17		S	8.5	AA	20.0	T	10	102	6	1/			SPR
1996 02 13.68		S	9.1	AA	10.5	R	7	23	11	3			HAS08
1996 02 13.86		S	8.1	S	15.0	R	5	25	6	4			NAG02
1996 02 13.92		S	8.7	AA	12.5	R	5	20	15	2			BEA
1996 02 14.15		S	8.1	AA	20.0	T	10	64	5	3/			SPR
1996 02 14.83		S	8.9	AA	15.2	L	5	42	5.5	1			MOE
1996 02 15.15		S	8.3	AA	20.0	T	10	102	5	2/			SPR
1996 02 15.54		S	9.2	S	13.0	L	6	24	5	2			KON03
1996 02 15.66		S	9.5	AA	10.5	R	7	23	8	3			HAS08
1996 02 15.78		C	9.3	GA	8.0	R	6		16				NAK01
1996 02 16.16		S	8.1	AA	20.0	T	10	51	5	2			SPR
1996 02 16.52		S	8.8	S	13.0	L	6	24	8	3			KON03
1996 02 16.82		S	7.8	HI	8.0	B		15	8.5	2			BOU
1996 02 16.85		S	8.6	AA	15.2	L	5	42	8.0	2			MOE
1996 02 16.90		S	8.1	AA	15.0	R		75	4	6			DIE02
1996 02 16.92		K	7.9	S	7.0	B		10	10	2			MAR02
1996 02 16.92		M	8.2	S	21.0	L	6	60	8	3			MAR02
1996 02 16.93		K	7.8	S	7.0	B		10	12	3			SAN04
1996 02 16.93		M	8.4	S	21.0	L	6	60	8	6			SAN04
1996 02 17.03		S	9.8	AA	25.3	L	6	57					PER01
1996 02 17.03		S	9.9	AC	25.3	L	6	57	& 4	4/			PER01
1996 02 17.04		S	8.9	AA	15.0	L	4	26	& 7	2/			PER01
1996 02 17.18		S	8.2	AA	8.0	B		15	12	2			HAV
1996 02 17.24		S	8.7	AA	10	B		14	11	3			SHA02
1996 02 17.60		B	7.8	S	5.0	B		7	20	3			BIV
1996 02 17.84		S	8.6	AA	15.2	L	5	42	7.5	2			MOE
1996 02 17.90		S	8.1	AA	8.0	B		20	8	3			ZAN

Comet C/1996 B1 (Szczepanski) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 18.04		S	8.7	AA	3.4	B		9	& 8	0/			PER01
1996 02 18.04		S	8.8	AA	15.0	L	4	26	& 8	2			PER01
1996 02 18.05		K	7.4	S	7.0	B		10	17	4			MAR02
1996 02 18.05		K	7.8	S	7.0	B		10	20	3			SAN04
1996 02 18.14	!	V	8.3	YF	20.0	T	2		&20	6			MIK
1996 02 18.97		S	8.5	HS	20.3	T	10	56	8	4			LEP
1996 02 19.01		S	8.3	AA	11	L	7	32	9.2	s3			BAR06
1996 02 19.26		S	8.1	AA	8.0	B		20	3	3			LOU
1996 02 19.81		S	8.6	AC	10.0	B		25	4.5	2			HAS02
1996 02 19.92		S	8.8	AA	12.5	R	5	20	10	1			BEA
1996 02 20.03		S	8.5	HI	20.3	T	10	80	7	1/			GRA04
1996 02 20.78		M	7.8	TI	8.0	B		10	9	2			HOR02
1996 02 20.79		M	7.5	TI	8.0	B		10	7.5	2			PLS
1996 02 20.81		S	8.4	S	15.0	R	5	25	6	4			NAG02
1996 02 20.86		S	9.5	AA	20	R	14	40	3.2	1			SHA02
1996 02 20.88		S	8.0	AA	12.5	R	5	20	15	2			BEA
1996 02 21.23		S	7.9	AA	10	B		14	17	2			SHA02
1996 02 21.66		S	8.6	AA	10.5	R	7	23	9	3/			HAS08
1996 02 21.83		S	7.7	AA	8.0	B		10	14	1			SHA02
1996 02 21.84		S	8.0	AA	20	R	14	40	7.9	2			SHA02
1996 02 21.96		S	8.9	AA	35	L	5	103	6	3			BR004
1996 02 22.03		S	8.4	AA	15.0	R		75	5	2			DIE02
1996 02 22.03		S	8.6:	AA	15.0	L	4	26	& 8	2/			PER01
1996 02 22.03		S	9.3:	AC	15.0	L	4	26					PER01
1996 02 22.04		S	8.3	AA	3.4	B		9	&12	1/			PER01
1996 02 22.60		M	8.6	S	12.5	L	6	23	10	3			TSU02
1996 02 22.81		S	8.2	S	15.0	R	5	25	7	4			NAG02
1996 02 22.88		M	8.0	TI	8.0	B		10	10	2/			HOR02
1996 02 22.92		B	8.2	S	21.0	T	6	60	5	4			RIP
1996 02 23.79		S	8.8	AA	15.2	L	5	42	5.0	2			MOE
1996 02 23.83		M	8.7:	TI	35	L	5	92	5.5	2/			HOR02
1996 02 23.86		S	8.4	AC	44.0	L	5	63	2.8	4			HAS02
1996 02 23.93		S	8.3	S	20.3	T	10	50	4.4	d3			KAM01
1996 02 24.00		K	8.2	S	7.0	B		10	16	4			MAR02
1996 02 24.00		S	7.9	HD	6.0	B		20	10	d3/			SAR02
1996 02 24.00		S	8.5	HD	44.5	L		82	13	5			BAK01
1996 02 24.01		M	7.8	S	21.0	L	6	60	8	5			SAN04
1996 02 24.80		M	8.1	TI	35	L	5	66	6	2/			HOR02
1996 02 24.80		S	8.9	AA	15.2	L	5	42	6.0	1			MOE
1996 02 24.84		S	8.4	AC	10.0	B		25	4.0	3			HAS02
1996 02 24.85		S	8.8	AC	10	L	6	33	6	2			YAS
1996 02 24.92		S	8.3	AA	13.0	L	6	36	8	2/			MEY
1996 02 25.00		K	8.2	S	7.0	B		10	14	4			MAR02
1996 02 25.00		S	7.8	HD	5.0	B		10	9	2/			SAR02
1996 02 25.00		S	8.3	HD	25.4	L		57		4			ZAG01
1996 02 25.00		S	8.3	HD	25.4	L	6	57	8	4/			SAR02
1996 02 25.05		S	7.5	AA	8.0	B		10	15	3			SZA
1996 02 25.06		B	9.5	S	5	R	4	8	6.2				FAU
1996 02 25.15		S	8.4	AA	20.0	T	10	51	7	2/			SPR
1996 02 25.16		S	7.9	AA	8.0	B		15	13	2			HAV
1996 02 25.26		J	9.2	SC	25.4	T	4		1.71	2/			ROQ
1996 02 25.41		S	7.9	AC	5.0	B		10	13	3			BOR
1996 02 25.88		M	7.2	TI	8.0	B		10	20	2/			HOR02
1996 02 25.89		M	7.3	TI	8.0	B		10	19	2			PLS
1996 02 25.93		S	8.7:	AA	11	L	7	32	5	1/			BAR06
1996 02 25.98		S	8.0	HD	5.0	B		10	15	2			SAR02
1996 02 26.07		S	8.4	HD	25.4	L	6	57	8	3/			SAR02
1996 02 26.13		S	8.0	AA	13.0	L	6	36	8	5			MEY
1996 02 26.15		S	8.3	AA	20.0	T	10	51	5.5	2/			SPR
1996 02 26.18		S	8.2	S	20.3	T	10	50	4.2	s3			KAM01
1996 02 26.38		S	7.8	AC	5.0	B		10	12	3			BOR
1996 02 26.40		B	8.6	S	5.0	B		7	12	3			BIV
1996 02 26.85		S	9.7	TI	11	L	7	32	4	3			KYS
1996 02 27.10		S	8.1	AA	13.0	L	6	36	9	3/			MEY

Comet C/1996 B1 (Szczepanski) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 27.19		S	7.7	AA	10	B		14	10	2			SHA02
1996 02 27.19	!	V	8.0	YF	20.0	T	2		&20	6			MIK
1996 02 27.28		B	8.5	S	5.0	B		7	13	2			BIV
1996 02 27.38		S	7.7	AC	5.0	B		10	15	3			BOR
1996 02 27.95		M	7.8	AA	4	R	6	12	15	1			MAI
1996 02 27.99		S	8.3	AA	11	L	7	56	5	s2/			BAR06
1996 02 28.09		S	8.0	AA	11	L	7	32	5	2			BAR06
1996 02 28.12		S	8.0	AA	13.0	L	6	36	9.5	3/			MEY
1996 02 28.18		S	8.1	AC	10.0	B		25	7.2	3			HAS02
1996 02 28.20		S	7.7	AA	5.0	B		7	12	1			SHA02
1996 02 28.20		S	8.0	AA	10	B		14	11	3	0.2	80	SHA02
1996 02 28.60		S	9.1	AA	20	L	5	36	6	2			SHI
1996 02 28.76		M	8.7	AA	10.5	R	7	23	7	6/			HAS08
1996 02 28.78		M	7.8	S	3.5	B		7	9	3			TSU02
1996 02 28.79		C	9.1	GA	8.0	R	6		13				NAK01
1996 02 28.81		S	8.7	S	15.0	R	5	25	6	3			NAG02
1996 02 29.15		S	8.5	AA	11.0	L	4	36	6	1			TRI
1996 02 29.21		S	7.5	AA	5.0	B		7	16	2			SHA02
1996 02 29.21		S	7.7	AA	10	B		14	16	3	0.4	85	SHA02
1996 02 29.79		S	8.7:	AA	15.2	L	5	42	5.0	2			MOE
1996 02 29.93		S	8.0	AA	11	L	7	56	5	s2/			BAR06
1996 03 01.21		J	9.9	SC	25.4	T	4		1.89	3	?	340	ROQ
1996 03 01.39	a	S	7.8	AC	5.0	B		10	15	2			BOR
1996 03 02.19		S	8.1	HI	8.0	B		15	7.5	1/			BOU
1996 03 02.26		K	8.8	S	7.0	B		10	8	2			MAR02
1996 03 02.83		S	8.8	S	15.0	R	5	25	7	3			NAG02
1996 03 07.76		S	8.0	AA	11	L	7	32	14	2/			BAR06
1996 03 07.81		S	7.7	AA	8.0	B		15	9	2			BOU
1996 03 07.81		S	9.2	AA	15.2	L	5	42	7.0	1			MOE
1996 03 08.79		S	8.4	AC	13.0	L	6	36	6.5	2/			MEY
1996 03 08.80		S	8.4	AC	10.0	B		25	5.1	3			HAS02
1996 03 08.80		S	9.4	AA	15.2	L	5	42	7.0	1			MOE
1996 03 08.81		M	7.2	TI	8.0	B		10	18	2			HOR02
1996 03 08.82		M	7.3	TI	8.0	B		10	19	1/			PLS
1996 03 08.83		S	7.7	AA	8.0	B		15	9	2			BOU
1996 03 08.88		S	8.7	S	20.3	T	10	50	3.5	2			KAM01
1996 03 08.89		S	9.2	GA	15.0	L	5	42	2	4			BEC01
1996 03 09.15		J	10.3	SC	25.4	T	4		1.26	s4/			ROQ
1996 03 09.80		M	7.6	TI	10	B		25	12	2			ZNO
1996 03 09.81		M	7.5	TI	8.0	B		10	15	2			HOR02
1996 03 09.81		S	8.7	TI	11	L	7	32	7	5			KYS
1996 03 09.82		S	9.5	AC	15.2	L	5	42	6.0	1			MOE
1996 03 09.83		B	9.0	AA	11.0	L	7	32	7.5	1			BAL02
1996 03 09.83		S	7.9	AA	8.0	B		15	8	2			BOU
1996 03 09.85		S	8.9	AA	12.5	R	5	20	7	1			BEA
1996 03 09.88		S	8.8	AC	13.0	L	6	36	7.5	3			MEY
1996 03 09.89		S	9.3	GA	15.0	L	5	42	3	4			BEC01
1996 03 09.90		S	8.9	S	20.3	T	10	50	3.5	2/			KAM01
1996 03 09.90		S	8.9	S	20.3	T	10	80	5.5	2			GRA04
1996 03 10.85		S	7.8	AA	8.0	B		15	10.5	2			BOU
1996 03 10.85		S	9.1	S	20.3	T	10	50	2.0	3			FAU
1996 03 10.87		S	8.4	AC	10.0	B		25	5.4	2			HAS02
1996 03 10.92		S	8.7	S	6.3	T		9	8	1			KAM01
1996 03 10.92		S	8.7	S	20.3	T	10	50	4.5	d3			KAM01
1996 03 10.95		K	8.1	S	7.0	B		10	12	3			MAR02
1996 03 10.95		S	8.5	AA	10	B		14	10	2			SHA02
1996 03 11.77		B	9.0	AA	11.0	L	7	32	8.0	1			BAL02
1996 03 11.83		S	7.9	AA	8.0	B		15	10	2			BOU
1996 03 12.02		S	8.7	AA	15.0	L	4	26	& 8	3			PER01
1996 03 12.02		S	9.7:	AA	25.3	L	6	57	& 6	3/			PER01
1996 03 12.18		S	8.6	AA	20.0	T	10	64	5.5	2/			SPR
1996 03 12.81		S	9.6	AC	15.2	L	5	29	5.0	1			MOE
1996 03 13.00		K	8.3	S	7.0	B		10	14	3			MAR02
1996 03 13.00		S	8.6	AA	10	B		14	12	2			SHA02

Comet C/1996 B1 (Szczepanski) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 13.08		S	8.0	AC	5.0	B		10	12	2			BOR
1996 03 13.17		S	8.7	AA	20.0	T	10	51	5	2/			SPR
1996 03 13.19		S	8.3	AA	8.0	R	3	20	& 9	2			GRE
1996 03 13.60		M	8.5	S	12.5	L	6	23	11	3			TSU02
1996 03 13.75		B	9.1	AA	11.0	L	7	32	7.5	1			BAL02
1996 03 14.19		S	8.7	AA	20.0	T	10	64	5	3			SPR
1996 03 14.20		S	8.8	AA	25.4	L	4	44		2			GRE
1996 03 15.86		S	8.2	AC	8.0	B		15	11	1/			BOU
1996 03 16.04		S	9.2	AA	15.0	L	4	26	& 5	1			PER01
1996 03 16.06		M	7.5	TI	8.0	B		10	15	2			HOR02
1996 03 16.19		S	8.4	AA	10.0	R	5	14	8.5	3			SPR
1996 03 16.85		S	8.2	TI	5.0	B		7	8	3			KYS
1996 03 16.88		B	9.0	AA	11.0	L	7	32	7.5	1			BAL02
1996 03 16.88		S	8.2	AC	11	L	7	32	10	1/			BAR06
1996 03 16.96		S	8.8	AC	13.0	L	6	36	8.5	2/			MEY
1996 03 16.98		K	8.5	S	7.0	B		10	7	2			MAR02
1996 03 17.06		S	8.5	AC	40.6	L	5	70	4.1	4			BOR
1996 03 17.76		B	9.0	AA	11.0	L	7	32	6.3	1			BAL02
1996 03 17.80		S	8.3	AC	11	L	7	32	13	1/			BAR06
1996 03 17.81		S	8.5	AC	11	L	7	32	10	2			ISH03
1996 03 17.82		S	8.6	AC	11	L	7	32	10	2			LOZ01
1996 03 17.94		K	8.7:	S	7.0	B		10	8	2/			MAR02
1996 03 18.07		S	8.3	AC	5.0	B		10	10				BOR
1996 03 18.07		S	8.7	AC	40.6	L	5	70	5.2	3/			BOR
1996 03 18.17		S	8.4	AA	10.0	R	5	27	8.5	2/			SPR
1996 03 18.93		B	8.9	AA	11.0	L	7	32	6.5	1			BAL02
1996 03 18.98		B	8.7	S	5.0	B		7	12	4			BIV
1996 03 19.14		K	8.7	S	7.0	B		10	10	1			MAR02
1996 03 19.25		J	10.8	SC	25.4	T	4		1.36	s3			ROQ
1996 03 19.82		S	8.3	TI	10	B		25	12	1/			ZNO
1996 03 19.83		M	8.2	TI	8.0	B		10	15	2			HOR02
1996 03 19.96		S	9.4	GA	15.0	L	5	42	5	4			BEC01
1996 03 20.13		J	10.6	SC	25.4	T	4		1.30	s2			ROQ
1996 03 20.19		S	8.6	AA	10.0	R	5	27	8	2/			SPR
1996 03 20.83		S	8.5	TI	8.0	B		10	11	1/			HOR02
1996 03 21.17		c	19.1	FA	91.4	L	5		8.91				SCO01
1996 03 21.18		C	12.9	FA	91.4	L	5						SCO01
1996 03 21.90		S	9.0	AC	11	L	7	32	12	1			BAR06
1996 03 21.90		S	9.0	AC	11	L	7	32	12	2			ISH03
1996 03 21.92		S	9.2	AC	11	L	7	32	12	1			RED
1996 03 21.97		K	8.8	S	7.0	B		10	11	2			MAR02
1996 03 22.14		J	10.3	SC	25.4	T	4		1.31	s3/			ROQ
1996 03 22.56		C	10.0	HS	8.0	R	6		11.1				NAK01
1996 03 22.77		S	9.3	AC	11	L	7	32	8	1/			BAR06
1996 03 23.22		S	8.7	AA	10.0	R	5	27	9.5	2			SPR
1996 03 23.67		S	9.0	AA	8.0	B		20	5	2			PEA
1996 03 24.07		B	9.0	NP	44.5	L		100	5.5	3			MAR02
1996 03 24.07		S	9.7	NP	44.5	L		100	4	4			SAN04
1996 03 24.18		S	8.7	AA	20.0	T	10	101	8	1/			SPR
1996 03 25.18		S	8.8	AA	10.0	R	5	80	8	1/			SPR
1996 04 04.01		S	9.1	AC	10	B		14	18	0			SHA02
1996 04 05.87		S	9.7	AC	10	B		14	12	1			SHA02
1996 04 06.77		M	8.7	S	10	B		25	6	1/			ZNO
1996 04 06.85		O	9.5	TI	20	L	4	57	5	2			KYS
1996 04 07.22		J	12.0	SC	25.4	T	4		2.67	s3			ROQ
1996 04 07.87		O	10 :	TI	20	L	4	57	4				KYS
1996 04 08.92		S	10.4	NP	21.0	L	6	60	4.5	0/			MAR02
1996 04 09.82		M	9.1	TI	10	B		25	5	2			ZNO
1996 04 09.85		S	9.0	TI	35	L	5	66	4.5	1/			HOR02
1996 04 10.85		S	10.5	GA	25.4	J	6	47	> 6	0			BOU
1996 04 12.85		S	10.7	GA	25.4	J	6	47	6	0			BOU
1996 04 15.84		S	10.7	GA	25.4	J	6	47	6	0			BOU
1996 04 15.85		S	10.0:	TI	35	L	5	66	2.5	1			HOR02
1996 04 18.83		S	9.4	HS	10	B		25	4.5	2/			ZNO
1996 04 22.50	a	C	13.5	GA	60.0	Y	6		2.6	1			NAK01

Comet C/1996 B2 (Hyakutake)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 01.84		P	13.3	HS	10.0	R	4		1				TAK05
1996 02 02.84		C	10.9	HS	41.0	L	6		3.0				KOB01
1996 02 09.19		B	9.5	AA	5.0	B		10					SAN05
1996 02 09.78		C	9.9	HS	20.6	T	6		6.6		4.5m	280	YUS
1996 02 10.80		C	10.4	HS	41.0	L	6		1.7				KOB01
1996 02 11.08		S	8.3	AA	8.0	B		20	5.4	2			SHA02
1996 02 12.18		K	8.6	S	5.0	B		7	5	2			TRI
1996 02 12.20		S	8.5	AA	5.0	B		10					DIM
1996 02 13.10		S	7.5	AA	8.0	B		20	6.7	3			SHA02
1996 02 13.43	a	S	8.6	AC	40.6	L	5	70	2.0	6			BOR
1996 02 15.01		M	3.8	AA	3	R	5	7	20	5	0.4		MAI
1996 02 15.92		M	3.7	AA	3	R	5	7	20	5	0.4		MAI
1996 02 16.07	&	S	8.0	AC	30.0	L	6	200					SCH13
1996 02 16.91		M	3.5	AA	3	R	5	7	20	5	0.5		MAI
1996 02 17.15		B	7.8	AA	20.3	T	10	68					SAN05
1996 02 17.17		S	7.9	AA	8.0	B		15	6.5	s4/			HAV
1996 02 17.20		S	7.5	AA	5.0	B		10					DIM
1996 02 17.21		S	7.3	S	10	B		14	6.7	4			SHA02
1996 02 17.61		B	7.7	S	5.0	B		7	10	5			BIV
1996 02 18.10		K	7.1	S	7.0	B		10	7	5			MAR02
1996 02 18.10		K	7.6	S	7.0	B		10	4	5			SAN04
1996 02 18.13	w	S	7.8	AA	8.0	B	5	20	6	s4			MIL02
1996 02 18.15	!	V	7.8	GA	20.0	T	2		&16	7	&0.3	280	MIK
1996 02 18.15	!	V	7.8	YF	20.0	T	2		&16	7	&0.3	280	MIK
1996 02 18.16	&	S	8.1	AC	17.0	L	6	35	12	3			CSO
1996 02 18.21		S	7.9	AA	3.4	B		9	& 6	2			PER01
1996 02 18.21		S	8.7	AA	15.0	B		25	4	4			ZAN
1996 02 18.28		S	7.4	AA	8.0	B		11	6	5/			DES01
1996 02 18.29		S	7.5	AA	8.0	B		20	10	4/			LOU
1996 02 19.14		S	7.8	AA	11	L	7	32	6.6	4			BAR06
1996 02 19.28		S	7.5	AA	8.0	B		11	7	5/			DES01
1996 02 19.28		S	7.5	AA	8.0	B		20	10	4			LOU
1996 02 20.29		S	7.4	AA	8.0	B		11	7	6			DES01
1996 02 20.83		S	7.8	S	15.0	R	5	25	5	6			NAG02
1996 02 21.17		S	7.9:	S	20.3	T	10	80	3	3/			GRA04
1996 02 21.19		S	7.3	AA	10	B		14	5.4	4			SHA02
1996 02 21.20		S	8.5	AA	15.0	R		75	3	5			DIE02
1996 02 21.28		S	7.3	AA	8.0	B		11	8	6			DES01
1996 02 21.68		S	8.4	AA	10.5	R	7	23	4	5			HAS08
1996 02 21.81		S	7.5	AA	8.0	B		11	5.5	5			MOR06
1996 02 22.24		B	7.4	AA	3.4	B		9					PER01
1996 02 22.24		S	7.5	AA	3.4	B		9	& 8	6	&1	320	PER01
1996 02 22.28		S	7.2	AA	8.0	B		11	7	6			DES01
1996 02 22.74		B	8.0	S	20.0	L	4	20	7	3			OHM
1996 02 22.83		S	7.8	S	15.0	R	5	25	5	6			NAG02
1996 02 23.20		S	6.8	AA	5.0	B		10					DIM
1996 02 23.25		B	7.5	AA	3.4	B		9	& 7	6			PER01
1996 02 23.25		M	7.6	AA	3.4	B		9					PER01
1996 02 23.29		S	7.2	AA	8.0	B		11	8	5/			DES01
1996 02 23.73		S	7.4	AA	10.5	R	7	23	8	5/			HAS08
1996 02 23.76		S	7.8	AA	5.0	B		7	11	3			KAN
1996 02 24.10		B	7.2	AA	20.3	T	10	68					SAN05
1996 02 24.10		S	7.3	HD	6.0	B		20	7	4	0.3	290	SAR02
1996 02 24.10		S	8.1	HD	44.5	L		82	9	6	0.4	260	BAK01
1996 02 24.10		S	8.3	HD	44.5	L	5	82	10	6	0.8	275	SAR02
1996 02 24.15		S	7.3	S	20.3	T	10	50	3.7	s5			KAM01
1996 02 24.16		S	7.9	S	10.0	B		25	2.6	4			HAS02
1996 02 24.22		B	7.3	AA	5.0	B		7	12	2			TRI01
1996 02 24.29		S	7.2	AA	8.0	B		11	8	5/			DES01
1996 02 24.70		S	7.0	AA	8.0	B		20	7	D5	0.5	280	PEA
1996 02 24.70		S	7.8	S	25	L	4	42	6	6	0.2	286	KON03
1996 02 24.83		S	7.5	S	10	L	6	33	5.5	5			YAS
1996 02 25.07		S	7.0	AA	8.0	B		10	10	5			SZA
1996 02 25.10		S	7.1	HD	6.0	B		20	8	5/	1	300	SAR02

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 25.10		S	8.2	HD	44.5	L	5	82	6	s6	0.8	290	SAR02
1996 02 25.13		M	8.1	TI	35	L	5	92	3	3/			HOR02
1996 02 25.14		B	7.4	S	20.3	T	10	50	3.7	6			FAU
1996 02 25.15		S	7.0	AA	8.0	B		15	8	s4/			HAV
1996 02 25.20		K	6.9	S	7.0	B		10	15	5			MAR02
1996 02 25.21		K	6.9	S	7.0	B		10	8	7	0.25		SAN04
1996 02 25.22		B	7.4	AA	5.0	B		7	10	2			TRI01
1996 02 25.31		S	7.1	AA	8.0	B		11	8	6/			DES01
1996 02 25.38		B	6.9	HR	5.0	B		10					BOR
1996 02 25.38		S	6.8	HR	5.0	B		10	12	6			BOR
1996 02 25.49		c	16.0	FA	91.4	L	5		14.1		46.9m	282	SC001
1996 02 25.51		S	7.3	NP	5.0	B		10					SC001
1996 02 25.83		S	7.4	S	15.0	R	5	25	6	6			NAG02
1996 02 26.08		S	6.5	AA	11	L	7	32	12	4	1	297	BAR06
1996 02 26.08		S	6.9	HD	5.0	B		10	12	5			SAR02
1996 02 26.08		S	8.2	HD	25.4	L	6	57	6	6	0.8	290	SAR02
1996 02 26.11		S	7.4	TI	8	R	4	17	4	4			KYS
1996 02 26.14		B	7.4	S	5.0	B		7	12	4			PRA01
1996 02 26.14		S	7.1	TI	5.0	B		7	5	5			KYS
1996 02 26.14	&	S	7.6	AC	13.0	L	6	36	7	S6/	0.1		MEY
1996 02 26.15					20.3	T	10	50	4.7	s6/	&0.1	300	KAM01
1996 02 26.16		S	7.1	S	6.3	B		9		4/			KAM01
1996 02 26.19		M	7.4	TI	20	L	7	62	4	3/			HOR02
1996 02 26.19		S	7.7	AC	10.0	B		25	4.5	5			HAS02
1996 02 26.39	a	B	6.5	HR	5.0	B		10					BOR
1996 02 26.39	a	S	6.4	HR	5.0	B		10	12	5/			BOR
1996 02 26.53		B	7.1	SC	5.0	B		7	15	7	0.3	280	BIV
1996 02 27.15	!	V	6.7	YF	20.0	T	2		&22	7	&1	290	MIK
1996 02 27.18		S	6.9	AA	10	B		14	10.5	4	0.5	285	SHA02
1996 02 27.22		S	6.8	AA	8.0	B		20	9.5	4	0.9	300	SHA02
1996 02 27.39	a	B	6.4	HR	5.0	B		10					BOR
1996 02 27.39	a	S	6.2	HR	5.0	B		10	12	5/			BOR
1996 02 27.58		B	6.9	SC	5.0	B		7	20	7	0.5	280	BIV
1996 02 27.96		M	7.0	AA	4	R	4	12	15	1			MAI
1996 02 28.08		B	6.3	AA	11	L	7	32	7	4			BAR06
1996 02 28.13		S	7.1	AC	13.0	L	6	36	9	d6	0.3		MEY
1996 02 28.17		S	6.7	AA	10	B		14	11	5	0.9	305	SHA02
1996 02 28.17		S	7.0	AA	10.0	B		25	4.2	4			HAS02
1996 02 28.18		S	4.9	S	0.8	E		1	18	3			SHA02
1996 02 28.18		S	6.5	AA	5.0	B		7	13	4	1.5	305	SHA02
1996 02 28.74		S	7.4	SC	20	L	5	36	5	5	0.2	285	SHI
1996 02 28.76		B	7.8	S	20.0	L	4	20	7	3			OHM
1996 02 28.78		M	6.9	AA	10.5	R	7	23	8	6	&0.17	270	HAS08
1996 02 28.80		M	6.4	AA	3.5	B		7					TSU02
1996 02 28.80	a	C	7.1	GA	8.0	R	6		22		0.69	282	NAK01
1996 02 28.82		S	7.1	S	15.0	R	5	25	6	6/	0.08		NAG02
1996 02 29.10		S	6.2	AA	8.0	B		12		5			BAR06
1996 02 29.10		S	6.2	AA	11	L	7	32		5			BAR06
1996 02 29.11		B	6.4	AA	11	L	7	32	6	6	0.5	310	BAR06
1996 02 29.15	&	S	6.2	HI	5.0	B		10	8				GRA04
1996 02 29.15	&	S	6.5	HI	20.3	T	10	80	5.5	5			GRA04
1996 02 29.16		S	6.3	HI	5.0	B		7	10	6			SKI
1996 02 29.18		S	6.4	AA	5.0	B		7	12	4	1.8	305	SHA02
1996 02 29.19		S	6.5	AA	10	B		14	16	6	1.2	305	SHA02
1996 02 29.19		S	6.8	AA	5.0	B		7	16	2			TRI
1996 02 29.23		S	4.9	S	0.8	E		1	20	2			SHA02
1996 03 01.07		B	6.4	AA	20.3	T	10	68					SAN05
1996 03 01.16	!	V	6.3	YF	20.0	T	2		&26	7	&0.7	285	MIK
1996 03 01.17		S	6.0	AA	5.0	B		10	10				DIM
1996 03 01.24		S	6.7	AA	5.0	B		7	15	2			TRI
1996 03 01.39					40.6	L	5	57	6.8	7	0.35	290	BOR
1996 03 01.39		B	6.3	HR	5.0	B		10					BOR
1996 03 01.39		S	6.1	HR	5.0	B		10	13	5/			BOR
1996 03 01.77		I	6.2	Y	0.0	E		1		9			MCN

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 01.77		S	6.5	Y	3.0	B		2					MCN
1996 03 02.13		M	6.0	TI	8.0	B		10	10	3/	0.5	285	HOR02
1996 03 02.17		M	6.6	AA	8.0	B		20	6	3			VAN06
1996 03 02.17	&	S	6.0	HI	5.0	B		10	10				GRA04
1996 03 02.17	&	S	6.3	HI	20.3	T	10	80	6	5			GRA04
1996 03 02.18		M	6.3	AA	8.0	B		15	10	5			BOU
1996 03 02.18		S	6.2	AA	6.3	B		9	11	5			KAM01
1996 03 02.18		S	6.7	AA	5.0	B		10					HAS02
1996 03 02.20		K	5.8	S	7.0	B		10	11	6	0.75	270	MAR02
1996 03 02.21		K	5.5	S	7.0	B		10	10	5			RIP
1996 03 02.23		B	6.5	AA	3.4	B		9					PER01
1996 03 02.23		M	6.0	AA	3.4	B		9	&12	5	&1.2	280	PER01
1996 03 02.23		S	6.1	AA	3.4	B		9					PER01
1996 03 02.24		B	6.7	AA	5.0	B		7					GON04
1996 03 02.24		S	6.4	AA	5.0	B		7	&10	3			GON04
1996 03 02.24		S	6.6	AA	3.4	B		9	& 6	1/			VIT01
1996 03 02.47		S	6.2	SC	5.0	B		7	& 6	4			DIL
1996 03 02.54		S	5.8	AA	8.0	B		11	14	7/	0.5	275	SPR
1996 03 02.74		S	5.9	AA	8.0	B		20	9	D6	1.0	285	PEA
1996 03 02.77		B	5.8	HS	25.4	T	6	60	12	7			YOS04
1996 03 02.79		B	6.4	AA	3.5	B		7	9	5			OHM
1996 03 02.81		S	6.5	S	15.0	R	5	25	5	7	0.11		NAG02
1996 03 02.81		S	6.6	AA	8.0	B		11	7.5	4			MOR06
1996 03 02.83		M	6.6	AA	3.0	B		8	6	6			KAT01
1996 03 02.83		S	6.8	AA	5.0	B		7	14	4	0.3	280	KAN
1996 03 03.17		M	5.8	TI	8.0	B		10	10	3/			HOR02
1996 03 03.17	!	V	5.9	YF	20.0	T	2		&26	7			MIK
1996 03 03.77		S	6.5	AA	8.0	B		20	7	5			YUS
1996 03 03.78		C	7.2	HS	20.3	T	6		8.3		>0.34	290	YUS
1996 03 04.19		S	6.1	AA	26.0	L	5	58	10	6	1.0	270	SAI
1996 03 04.24		M	5.5	AA	3.4	B		9	&13	S4/			PER01
1996 03 04.24		S	5.5	AA	3.4	B		9					PER01
1996 03 04.40	a	B	5.8	HR	5.0	B		10					BOR
1996 03 04.40	a	S	5.6	HR	5.0	B		10	10	6			BOR
1996 03 04.50		M	5.4	SC	0.0	E		1	&20				OME
1996 03 05.14		M	5.8	TI	8.0	B		10	10	3			HOR02
1996 03 05.19		K	6.2	AA	5.0	B		7		2			TRI
1996 03 05.73		B	7.4	HS	25.4	T	6	60	7	7			YOS04
1996 03 05.79	a	C	6.2	GA	8.0	R	6		24		>0.86	285	NAK01
1996 03 05.82		M	5.3	AA	6.5	R	8	16	&10	5			NAK01
1996 03 06.16	!	V	5.6	YF	20.0	T	2		&20	7			MIK
1996 03 07.12	&	S	5.0	HI	5.0	B		10	12	5			GRA04
1996 03 07.14	&	N	9.5	S	20.3	T	10	80	6	6/			GRA04
1996 03 08.47		S	6.3	SC	5.0	B		7	& 8	4			DIL
1996 03 09.12		S	4.7	HI	5.0	B		10	12	5			GRA04
1996 03 09.14		N	9.4	S	20.3	T	10	80	4	6			GRA04
1996 03 09.36		S	5.0	HR	8.0	B		20	8.5	7			BOR
1996 03 09.36		S	5.1	HR	5.0	B		10	10				BOR
1996 03 09.53		M	4.3	AE	0.0	E		1					SCO01
1996 03 09.81		S	6.6	S	15.0	R	5	25	6	7			NAG02
1996 03 10.12		B	5.5:	AA	11.0	B		20	& 5	5			CHE03
1996 03 10.99		S	5.0	AC	35	L	5	97	11	8			VAN04
1996 03 11.00		S	5.2	AA	15.0	R		75	7	7			DIE02
1996 03 11.10		B	5.5:	AA	11.0	B		20	&10	5			CHE03
1996 03 11.10		S	4.6	YG	5.0	B		7	14	5			SKI
1996 03 11.10		S	5.4	AA	5.0	B							DIM
1996 03 11.12		S	4.6	HI	5.0	B		10	12	5			GRA04
1996 03 11.14		S	4.7	SC	5.0	B		7	18	7	0.8	295	BIV
1996 03 11.29	a	B	4.8	HR	5.0	B		10					BOR
1996 03 11.29	a	S	4.5	HR	5.0	B		10	10	6/			BOR
1996 03 11.30		S	4.5	AA	8.0	B		11	15	5/	>1.2	285	DES01
1996 03 11.31		S	4.2	AA	0.0	E		1	20				DES01
1996 03 11.56		S	4.8	AA	8.0	B		20	8	D6	0.5	278	PEA
1996 03 11.64		M	5.3	SC	0.0	E		1				290	OME

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 11.77		M	5.0	AA	5.0	B		7	10	6			KAT01
1996 03 11.81		S	5.3	S	15.0	R	5	25	6	7			NAG02
1996 03 11.86		S	4.6	AA	8.0	B		11	8	6			MOR06
1996 03 12.01		B	5.0	S	8.0	B		20	15	3	1.0	280	RIP
1996 03 12.02		B	4.5	AA	5.0	B		7	15	6			SAI
1996 03 12.02		M	4.4	AA	5.0	B		7	17	5	2.5	290	BOU
1996 03 12.05		S	4.7	AA	5.0	B		7					DIE02
1996 03 12.06		I	4.7	AA	0.0	E		1					PER01
1996 03 12.07		S	4.5	YG	5.0	B		10	17	5/			GRA04
1996 03 12.08		S	4.1	AA	0.0	E		1	20				DES01
1996 03 12.08		S	4.4	AA	8.0	B		11	15	4/	>1.5	285	DES01
1996 03 12.13		M	4.4	AA	3.4	B		9	&12	5	&2	280	PER01
1996 03 12.20		B	5.5	AA	5.0	B		7	& 6				GON04
1996 03 12.33	a	B	4.9	HR	5.0	B		10					BOR
1996 03 12.33	a	S	4.4	HR	0.0	E		1					BOR
1996 03 12.33	a	S	4.5	HR	5.0	B		10	14	6/	1.9	285	BOR
1996 03 12.66		M	4.3	AA	3.5	B		10	28	6			NAK01
1996 03 12.79		S	4.8	AA	8.0	B		11	8	6			MOR06
1996 03 13.02		K	4.7	S	7.0	B		10	25	3	2.0	290	MAR02
1996 03 13.05					10	B		14	12	6	3	260	SHA02
1996 03 13.06		I	4.5	AA	0.0	E		1					PER01
1996 03 13.06		M	4.4	AA	3.4	B		9	&10	4			PER01
1996 03 13.07		S	3.6	S	0.8	E		1	70	2			SHA02
1996 03 13.07		S	4.4	AA	8.0	B		11	18	4/	>1.5	280	DES01
1996 03 13.07		S	4.5	AA	5.0	B		7	17	4			SHA02
1996 03 13.08		S	4.2	AA	0.0	E		1	25				DES01
1996 03 13.13		B	4.8	AA	0.0	E		1	15	6	0.5	290	TRI01
1996 03 13.23		B	4.1	AA	0.0	E		1					GRE
1996 03 13.23		B	4.4	AA	5.0	B		12	&21	6			GRE
1996 03 13.26					40.6	L	5	57	7.2	8	1.1	270	BOR
1996 03 13.26	a	B	4.7	HR	5.0	B		10					BOR
1996 03 13.26	a	S	4.4	HR	5.0	B		10	15	7	1.1	270	BOR
1996 03 13.26	a	S	4.5	HR	0.0	E		1	24				BOR
1996 03 13.41		S	4.3	AA	8.0	B		11	14	7/	1.5	285	SPR
1996 03 13.48		S	5.1	SC	5.0	B		7	&10	2	&0.25	300	DIL
1996 03 13.61		M	4.1	AA	3.5	B		7					TSU02
1996 03 13.68		M	4.2	AA	10.5	R	7	23	17	6	&0.41	280	HAS08
1996 03 13.74		M	4.3	AA	3.5	B		10	31	7			NAK01
1996 03 13.74		S	4.2	SC	2.5	B		5	25	6	1.1	280	KOB01
1996 03 13.75		C	4.7	GA	8.0	R	6		36			290	NAK01
1996 03 13.76		C	4.5	YF	3.8	A	3		49		1.6	283	NAK01
1996 03 13.77		M	4.5	AA	5.0	B		7	15	6			KAT01
1996 03 13.79		S	4.9	HS	25.4	T	6	60	15	8	0.5		YOS04
1996 03 13.81		S	4.8	S	15.0	R	5	25	7	6	0.33		NAG02
1996 03 14.04		S	4.5	AA	6.3	B		9	17	S7	>0.7	275	KAM01
1996 03 14.07		S	3.9	AA	0.0	E		1	17	4/	1	275	HAV
1996 03 14.08		S	4.3	AA	8.0	B		11	18	4/	2.0	280	DES01
1996 03 14.10		B	4.6	SC	5.0	B		7	20	6	1.0	300	BIV
1996 03 14.10		S	4.0	AA	0.0	E		1	25		>2.5		DES01
1996 03 14.11		I	4.4	AA	0.0	E		1					PER01
1996 03 14.12		M	4.2	AA	3.4	B		9	&12	5			PER01
1996 03 14.13		S	4.4	AA	5.0	B		10	13.6	4			HAS02
1996 03 14.14		S	4.4	AA	5.0	B		7					DIE02
1996 03 14.15		S	4.2	AA	12.5	R	5	20	25	3			BEA
1996 03 14.22		B	4.2	AA	0.0	E		1					GRE
1996 03 14.24		S	4.1	AA	5.0	B		7	10	6	3.0	280	LOU
1996 03 14.29		B	4.2	S	5.0	B		10	20		1.0		GAL
1996 03 14.40		S	4.1	AA	8.0	B		11	13.5	6/	1.5	280	SPR
1996 03 14.46		M	4.0	SC	0.0	E		1	&27.5		3	305	OME
1996 03 14.99		B	4.3	AA	8.0	B		20	13	4	0.8	287	VAN06
1996 03 14.99		S	3.8	AA	5.0	B		10					DIM
1996 03 15.03		S	4.5	S	0.8	E		1		5			BEC01
1996 03 15.03		S	4.5	S	5.0	B		7		7			BEC01
1996 03 15.05		S	4.5	S	15.0	L	5	42	> 9	7			BEC01

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 15.05	a	M	4.1	AA	3.4	B		9	&14	5			PER01
1996 03 15.06		S	4.0	Y	6.0	B		20	10	s4	0.4	300	LAN02
1996 03 15.07		B	4.0	Y	0.0	E		1	15				MIZ01
1996 03 15.07		S	4.0:	S	5.0	B		7	12	5			TH003
1996 03 15.08		B	4.5:	Y	8.0	B		10	30	5			SZA
1996 03 15.11		S	4.2	AA	6.3	B		9	18	S7/	1.0	275	KAM01
1996 03 15.20		S	4.0	AA	8.0	B		20	30		2		NUZ
1996 03 15.22		I	3.8	AA	0.0	E		1	&40	4			PER01
1996 03 15.32		M	3.8	AE	0.0	E		1					SC001
1996 03 15.39		B	4.0	S	5.0	B		10	25	7	2.0		GAL
1996 03 15.48		M	3.9	SC	0.0	E		1	40		7.5	285	OME
1996 03 15.48		S	3.7	AA	5.0	B		7	18	6	2.5	275	SPR
1996 03 15.73		B	4.0	S	3.5	B		7	20	7			OHM
1996 03 15.73		I	3.9	AA	0.0	E		1					TSU02
1996 03 15.77		S	3.9	AA	2.0	B		7	30	6	1.5	280	KOB01
1996 03 15.79		S	3.9	S	15.0	R	5	25	11	5	0.66		NAG02
1996 03 15.81		S	4.3	S	5.0	B		7	&12	5/			KIN
1996 03 15.83		M	4.0	AA	5.0	B		7	20	6	0.8	270	KAT01
1996 03 15.99		B	4.3	TI	5.0	B		7	12	5	0.5	290	KYS
1996 03 16.00		B	3.3	S	0.0	E		1	50	6	5.5	305	MAR02
1996 03 16.00		B	3.5	S	0.0	E		1	55	7	5		SAN04
1996 03 16.01		O	3.6	TI	0.0	E		1	20	4			KYS
1996 03 16.03		M	4.1	TI	5.0	B		7	12	5	0.5	290	KYS
1996 03 16.04		B	3.6	AA	0.0	E		1	40	4	0.5		TRI01
1996 03 16.04		B	3.8	AA	5.0	B		7	45	4	2.0	265	TRI01
1996 03 16.05		M	3.5	TI	8.0	B		10	20	3/	3	285	HOR02
1996 03 16.06		B	3.9	AA	5.0	B		7	20	6	1.0	283	SAI
1996 03 16.09		S	3.7	AA	0.6	E		1					MEY
1996 03 16.10		B	3.0	S	0.0	E		1	45	7	>3.0	300	GOM
1996 03 16.10		M	3.6	S	0.0	E		1	30	3			PRA01
1996 03 16.10		M	4.1	AA	5.0	B		10	16	D6	1.8		MEY
1996 03 16.11		M	3.4	S	5.0	B		10	20	4/	0.33	285	PLS
1996 03 16.16		I	3.4	AA	0.0	E		1	&35	4	>1.4		VIT01
1996 03 16.16		I	3.5	AA	0.0	E		1	&35	5	10	310	PER01
1996 03 16.16		M	3.4	AA	3.4	B		9	&20	4	>5	280	PER01
1996 03 16.28					5.0	B		10	24	7	&4.5	275	BOR
1996 03 16.28		S	2.7	HR	0.0	E		1	54	6			BOR
1996 03 16.32		B	3.6	S	5.0	B		10	45	7	>5.0		GAL
1996 03 16.34		M	3.5	AE	0.0	E		1					SC001
1996 03 16.36		S	3.5	SC	0.7	E		1					DAH
1996 03 16.38		S	3.8	SC	5.0	B		10	15	7	1.0	277	DAH
1996 03 16.48		S	3.1	AA	5.0	B		6	35	6	2	270	SPR
1996 03 16.98		I	3.2	SC	0.0	E		1		5			BAR06
1996 03 17.00		B	3.5	AA	5.0	B		7	&26	5	1.0	279	CHE03
1996 03 17.00		B	3.7	AA	5.0	B		7	35	3	3.5	279	BAL02
1996 03 17.01		B	3.0	AA	0.0	E		1	40	6	4	281	SAI
1996 03 17.02		B	3.5	AA	13.3	R	5	33	26	8	2.5	275	SC004
1996 03 17.03		S	4.0	TI	5.0	B		7	13	5	0.5	290	KYS
1996 03 17.04		B	3.6	AA	5.0	B		10	25		2.5	260	PUJ01
1996 03 17.04		S	4.0:	S	5.0	B		7	14	5			TH003
1996 03 17.05		B	3.6	AA	5.0	B		7	50	5	3.3	275	TRI01
1996 03 17.06		I	3.1	SC	0.0	E		1		5			BAR06
1996 03 17.08		M	3.2	S	0.0	E		1	35	3/			PRA01
1996 03 17.10		B	2.9	S	0.0	E		1	65	7/	8	280	MAR02
1996 03 17.10		S	3.5	AA	5.0	B		10	20				DIM
1996 03 17.14		I	2.9	AA	0.0	E		1	&35	4	15	300	PER01
1996 03 17.23	a	B	3.2	HR	0.0	E		1					BOR
1996 03 17.23	a	I	3.4	HR	0.0	E		1					BOR
1996 03 17.23	a	S	2.7	HR	0.0	E		1	66	5/			BOR
1996 03 17.26		B	3.2	AA	0.0	E		1					GRE
1996 03 17.30		S	3.3	SC	5.0	B		10	24	7	2.3	276	DAH
1996 03 17.31		S	2.9	SC	0.7	E		1	32	6	3.1		DAH
1996 03 17.32		B	3.1	S	5.0	B		10	50	7	3		GAL
1996 03 17.32		S	3.2	AA	8.0	B		11	35	3/	>2.8	280	DES01

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 17.33		S	3.0	AA	0.0	E		1	50		>5		DES01
1996 03 17.35		M	3.4	AE	0.0	E		1			>6	275	SC001
1996 03 17.36		M	3.5	YF	5.0	B		7	&26	7			ADA03
1996 03 17.52		M	3.2	AE	0.0	E		1					SC001
1996 03 17.58		S	3.5	AA	0.0	E		1	35	5			PEA
1996 03 17.58		S	3.7	AA	8.0	B		20	15	D7	1.3	275	PEA
1996 03 17.89		B	3.4	AA	5.0	B		7	&28	4	2	275	CHE03
1996 03 17.96					8.0	B		12	27	S6	9	269	BAR06
1996 03 17.96		I	2.9	SC	0.0	E		1		5			BAR06
1996 03 18.00		B	3.2	AA	5.0	B		7	40	3	6.5	275	BAL02
1996 03 18.00		M	2.8	YG	5.0	B		10	24	6/			GRA04
1996 03 18.02		S	3.0	Y	6.0	B		20	12	s4	0.5	300	LAN02
1996 03 18.04		B	2.8	AA	5.0	B		10	25		5	260	PUJ01
1996 03 18.05		B	3.3	AA	5.0	B		7	30	5	2	275	CHE03
1996 03 18.05		I	2.7	AA	0.0	E		1	&25	2/			PER01
1996 03 18.05		I	2.7	SC	0.0	E		1		5			BAR06
1996 03 18.05		M	2.6	AA	5.0	R	4	5	&20	5			PER01
1996 03 18.06		S	3.5:	S	6.0	R	7	20	10	6			TH003
1996 03 18.07		M	2.9	S	0.0	E		1	45	3/			PRA01
1996 03 18.09		B	3.4	AA	5	R	5	10	&40	3	&2.5		GAS01
1996 03 18.10		M	2.4	S	0.0	E		1	54	4			HOR02
1996 03 18.10		S	2.8	AA	0.0	E		1	60		>5.5		DES01
1996 03 18.12		M	3.1	S	5.0	B		10	30	4	2.5	280	PLS
1996 03 18.12		S	2.3	YG	5.0	R		10	60	7	>4	285	SKI
1996 03 18.13		B	2.8	S	0.0	E		1	55	7	9.5	275	MAR02
1996 03 18.13		S	2.8	AA	8.0	B		20	50	3	>5	275	LOU
1996 03 18.19		B	2.5	AA	5.0	B		10					SAN05
1996 03 18.19		S	3.8	AA	12.5	R	5	20	40	3			BEA
1996 03 18.25		B	2.9	AA	0.0	E		1					GRE
1996 03 18.27		S	2.6	SC	0.7	E		1	37	5	2.9		DAH
1996 03 18.33		B	3.3	Y	0.5	E		1					FER
1996 03 18.35		S	2.8	AA	5.0	B		7	35	6/	4.5	260	SPR
1996 03 18.41		B	3.0	Y	0.5	E		1					FER
1996 03 18.51		M	2.9	AE	0.0	E		1					SC001
1996 03 18.56		M	3.0	SC	0.0	E		1	45		9	260	OME
1996 03 18.67		M	2.6	AA	0.0	E		1	50	6	9	265	KAT01
1996 03 18.71		M	2.7	Y	0.0	E		1	50	7	4		YUS
1996 03 18.71		S	2.9	AA	0.0	E		1	45	6			PEA
1996 03 18.71		S	3.2	AA	8.0	B		20	17	D7	1.8	274	PEA
1996 03 18.73		C	2.9	YF	2.5	A	2		106		9.8	275	NAK01
1996 03 18.73		I	2.6	AA	0.0	E		1	45	6	1	265	KOB01
1996 03 18.75		M	2.7	AA	0.0	E		1	95	6			NAK01
1996 03 18.80		S	2.8	S	15.0	R	5	25	18	5	1.0		NAG02
1996 03 18.90		B	2.9	AA	5.0	B		7	46	4	4	270	CHE03
1996 03 18.90		B	3.0	AA	5.0	B		7	40	3	6	272	BAL02
1996 03 18.96		I	2.5	SC	0.0	E		1		6			ISH03
1996 03 18.97		I	2.4	SC	0.0	E		1		5			BAR06
1996 03 18.98		S	2.6	HD	0.0	E		1					KIS02
1996 03 18.98		S	2.6	Y	5.0	B		7	15	7	3	270	KIS02
1996 03 18.98		S	3.2	AA	5.0	B		10	30	6	3	290	MOE
1996 03 19.03		S	2.3	SC	0.7	E		1	60	6			GRA04
1996 03 19.03		S	3.1	AA	5.0	B		10	30	6	5	290	MOE
1996 03 19.04		S	3.0	Y	3.5	B		7	20	4	1	280	KES01
1996 03 19.06		B	2.7	SC	0.0	E		1	30	6	3.0	270	BIV
1996 03 19.08		B	2.9	AA	5.0	B		7	50	5	3		DEM01
1996 03 19.08		M	2.9	AA	5.0	B		7	46	4	4.5	273	CHE03
1996 03 19.09		B	3.0	AA	5.0	B		7	48	5	4	273	VAS02
1996 03 19.10		B	2.7	AA	0.0	E		1	&50	5	1.0		CHE03
1996 03 19.10		B	2.7	S	0.0	E		1	&20	3	&2	270	GAR02
1996 03 19.10		B	3.3	AA	5	R	5	10	&50	5	&4.0	273	GAS01
1996 03 19.10		S	2.0	AA	0.0	E		1			5		DIM
1996 03 19.11		S	2.2	SC	5.0	R		10	45	6/	4	290	SKI
1996 03 19.17		B	2.5	S	0.0	E		1	75	7/	15	290	MAR02
1996 03 19.17		B	2.8	S	0.0	E		1	75	8	8	260	SAN04

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 19.18		B	2.4	AA	5.0	B		10					SAN05
1996 03 19.22	a	S	2.6	HR	0.0	E		1	66	5			BOR
1996 03 19.22	a	S	2.8	HR	5.0	R		1					BOR
1996 03 19.23		B	2.5	SC	0.0	E		1					CHE
1996 03 19.23		B	2.6	Y	0.0	E		1	&90	6/			GRE
1996 03 19.39		M	3.0:	YF	5.0	B		7	&40	7	&1.5	280	ADA03
1996 03 19.40		B	2.8	Y	0.5	E		1					FER
1996 03 19.50		M	2.7	AE	0.0	E		1	&42		20	275	SC001
1996 03 19.56		M	2.9	SC	0.0	E		1	45		20	265	OME
1996 03 19.66		S	3.1	SC	3.0	B		10	40	s5	2	270	SHI
1996 03 19.73		S	2.4	AA	0.0	E		1	45	5			PEA
1996 03 19.73		S	2.9	AA	8.0	B		20	18	D7	2.1	274	PEA
1996 03 19.89		B	2.6	AA	5.0	B		7	45	3	7	270	BAL02
1996 03 19.93		M	1.9	S	0.0	E		1	72	4/			PLS
1996 03 19.93		M	3.3	Y	5.0	B		7	20	4	0.42	240	KYS
1996 03 19.96		S	2.5	Y	5.0	B		7	40	7	3	270	TUB
1996 03 19.97		O	2.2	SP	0.0	E		1	70	4/			ZNO
1996 03 19.99		B	2.5	AA	0.0	E		1	60	5	4	260	TRI01
1996 03 19.99		B	2.8	AA	5.0	B		7	60	5	3.5	260	TRI01
1996 03 19.99		M	1.6	S	0.0	E		1	60	3/	3.5	278	HOR02
1996 03 20.00		B	2.3	Y	0.0	E		1	40	7	3	280	SAR02
1996 03 20.01	a	S	2.3	AA	0.0	E		1					MIL02
1996 03 20.02		S	2.0	Y	6.0	B		20	20	s4	1.5	300	LAN02
1996 03 20.03		M	2.9	Y	5.0	B		7	23	7	0.67	240	KYS
1996 03 20.04		B	2.4	Y	0.0	E		1	25	6			KYS
1996 03 20.04		B	3.0	Y	0.0	E		1	60				MIZ01
1996 03 20.04		M	2.6:	Y	5.0	B		10	45	s6/	9	270	SAR02
1996 03 20.04		S	3.0:	S	5.0	B		5		6	1.5	90	BEC01
1996 03 20.04		S	3.4	Y	5.0	B		7	20	7		270	SZ001
1996 03 20.06		B	2.3	Y	0.0	E		1	15	6	9	265	KER
1996 03 20.07		M	1.9	SC	0.7	E		1	67	6			GRA04
1996 03 20.07		M	2.5	AA	5.0	B		7	48	4/	6.5	264	CHE03
1996 03 20.08		B	2.4	S	8	R	6	24	36	5			KON06
1996 03 20.08		B	2.4	Y	0.0	E		1			2	265	SZA
1996 03 20.08		S	2.4	Y	3.5	B		7	20	5	1.5	260	KES01
1996 03 20.09		B	2.3	AA	0.0	E		1	&50	5	&2		CHE03
1996 03 20.10		B	2.5	AA	0.0	E		1	50	5	3		DEM01
1996 03 20.10		I	2.0	AA	0.0	E		1	>40	4/			PER01
1996 03 20.10		M	2.3	S	0.0	E		1	80				PRA01
1996 03 20.10		S	2.0	AA	0.0	E		1	60		5		NUZ
1996 03 20.11		N	8.3	S	20.3	T	10	80					GRA04
1996 03 20.13		S	1.9	SC	5.0	R		10	60	7	5	275	SKI
1996 03 20.14		M	2.9	Y	5.5	R	12	38	12	6			SZL
1996 03 20.15		M	2.1	S	0.0	E		1	60	4/			PLS
1996 03 20.15		S	2.7:	SC	0.7	E		1	10				HIL02
1996 03 20.18		B	2.3	AA	5.0	B		10					SAN05
1996 03 20.18		B	2.4	S	0.0	E		1	52	3	8	260	GAR02
1996 03 20.30		B	2.5	S	5.0	B		10	60	8	>10		GAL
1996 03 20.36		B	2.2	YF	0.0	E		1	&60	7			ADA03
1996 03 20.36		B	2.5	Y	0.5	E		1					FER
1996 03 20.36		M	2.4	YF	5.0	B		7	&40	8	&5	270	ADA03
1996 03 20.43		M	2.4	AE	0.0	E		1					SC001
1996 03 20.51		M	2.1	AE	0.0	E		1			30	260	SC001
1996 03 20.58		M	2.5	SC	0.0	E		1	60		26	260	OME
1996 03 20.66		M	2.3	AA	0.0	E		1	95	7			NAK01
1996 03 20.71		I	2.1	AA	0.0	E		1	60	6	4	270	KOB01
1996 03 20.74		M	1.8	SC	0.0	E		1	70	6	16	270	KAT01
1996 03 20.77		S	2.4	SC	0.0	E		1	55	s6	4	270	SHI
1996 03 20.80		S	1.5	S	15.0	R	5	25	25	4/	1.5		NAG02
1996 03 20.82		I	2.3	YF	0.0	E		1	40	7	2.5		YOS04
1996 03 20.90		B	1.0:	S	6.0	B		20	25	5	3.5		STE12
1996 03 20.90		I	1.4	SC	6	R		12	18	S6			OGA01
1996 03 20.91		B	2.2	AA	5.0	B		7	55	3	12	266	BAL02
1996 03 20.92		B	2.2	AA	0.0	E		1	&55	4	&6	260	KUC01

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 20.92		S	2.0	AA	3.0	B		8	45	s3			MER
1996 03 20.93		B	2.4	Y	0.0	E		1	20	6			KYS
1996 03 20.93		M	1.7	S	0.0	E		1	85	4/			PLS
1996 03 20.93		M	2.5	Y	5.0	B		7	18	8			KYS
1996 03 20.95		M	2.1	AA	0.0	E		1	45	5	3	267	CHE03
1996 03 20.95		S	2.1	AA	5.0	B		10	35	7	5	260	MOE
1996 03 20.96		S	1.8:	SC	5.0	B		7	20	7			HEE
1996 03 20.98		M	2.1	S	0.0	E		1	90				PRA01
1996 03 20.99		S	2.6	Y	17.0	L	6	35	20		1	270	CS0
1996 03 21.00		B	2.2	AA	3.6	B		4	13	3	2.2	265	VAN06
1996 03 21.01		B	1.7	S	0.0	E		1	120	8			SAN04
1996 03 21.02		S	1.5	YG	0.7	E		1			5		SKI
1996 03 21.02		S	1.5	YG	5.0	R		10	60	7	>7	265	SKI
1996 03 21.03		M	1.7	YG	6.0	R		1					GRA04
1996 03 21.03		0	1.7	SP	0.0	E		1	80	5	3.5		ZN0
1996 03 21.04		B	1.8	Y	0.0	E		1	30	5			KYS
1996 03 21.04		B	2.0	Y	0.0	E		1	40	7/	5	290	SAR02
1996 03 21.04		B	2.5:	Y	0.0	E		1	60				MIZ01
1996 03 21.04		M	2.3	Y	5.0	B		7	27	6	0.67	230	KYS
1996 03 21.05					5.0	B		10	47	7	4.6	254	GRA04
1996 03 21.05		B	2.1	S	8	R	6	24	42	5			KON06
1996 03 21.05		M	1.6	YG	0.7	E		1	80	6/	5.5	262	GRA04
1996 03 21.05		0	2.1	SP	0.0	E		1	30		2		POD
1996 03 21.06		B	1.7	TI	0.0	E		1	60	4/			DV0
1996 03 21.06		B	2.0	AA	0.0	E		1	50	7	>2		MIL02
1996 03 21.06		B	2.0	Y	0.0	E		1					SZA
1996 03 21.06		M	1.3	S	0.0	E		1	70	4	6	277	HOR02
1996 03 21.07		B	1.9	AA	6.0	B		20	60	7	1.0	270	SAI
1996 03 21.07		I	2.0	AA	0.0	E		1	&45	6	12	255	PER01
1996 03 21.07		S	1.6	AA	0.6	E		1			4.2		MEY
1996 03 21.07		S	1.8	AA	0.0	E		1	54	5	2	260	HAV
1996 03 21.08		M	1.8	AA	5.0	B		10	40.5	D6/	6		MEY
1996 03 21.08		M	1.9	AA	0.0	E		1	45	4	2.5	267	CHE03
1996 03 21.10		B	1.8	AA	0.0	E		1	&35	5	&4.5	266	GAS01
1996 03 21.10		S	1.5	AA	0.0	E		1	&60	7	20	260	MIK
1996 03 21.12		S	1.9	Y	3.5	B		7	20	4	3.0	255	KES01
1996 03 21.12		S	2.2:	SC	0.7	E		1	20		2.0	260	HIL02
1996 03 21.14		B	2.1	S	0.0	E		1	60	3	15	250	GAR02
1996 03 21.14		I	1.7	AA	0.0	E		1	&45	6/			PER01
1996 03 21.15		B	1.1	AA	5.0	B		7	60	6	5	255	TRI01
1996 03 21.15		B	1.4	AA	5.0	B		7	65	5	4.5	255	TRI01
1996 03 21.15		B	2.1	Y	0.0	E		1					GRE
1996 03 21.15		I	1.0	SC	0.0	E		1		8			ISH03
1996 03 21.15		M	2.0	Y	3.5	R		1		8			GRE
1996 03 21.16					6.3	B		9	35	S8	4	255	KAM01
1996 03 21.16		B	2.2	Y	0.0	E		1					MAR03
1996 03 21.16		I	1.9	AA	0.8	E		1	60	8			KAM01
1996 03 21.16		S	2.2	AA	0.0	E		1			3	240	DIE02
1996 03 21.18		B	2.0	AA	5.0	B		10					SAN05
1996 03 21.27		B	1.8	Y	0.5	E		1					FER
1996 03 21.27		S	1.8	AA	5.0	B		7	55	6/	6.5	265	SPR
1996 03 21.30		B	2.0	S	5.0	B		10	60	8	>15		GAL
1996 03 21.30		S	1.9	AA	8.0	B		11	45	3	>3.5	270	DES01
1996 03 21.31		S	1.7	AA	0.0	E		1	60		>5.5		DES01
1996 03 21.35		B	1.3	YF	0.0	E		1	65	7	15	260	ADA03
1996 03 21.60		M	1.0	SC	5.0	R		1	90		30	235	OME
1996 03 21.88		B	1.3	AA	5.0	B		7	70	3	14	249	BAL02
1996 03 21.88		M	1.5	Y	5.0	B		7	20	7	0.67	240	KYS
1996 03 21.91		S	1.9	SC	0.7	E		1	40	8	7.5	255	KVA
1996 03 21.92		I	1.7	SC	0.0	E		1					FIL05
1996 03 21.92		S	1.4	SC	0.7	E		1	45	7/	5.5	254	HEE
1996 03 21.93		B	1.4:	AA	0.0	E		1	&66	3	8.5	250	KUC01
1996 03 21.93		M	0.8	AA	0.0	E		1	67	5	6	256	CHE03
1996 03 21.93		S	1.5	AA	5.0	B		10	40	7	8	250	MOE

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 21.94		B	0.6	AA	0.0	E		1					GAS01
1996 03 21.96		B	1.9	SC	0.0	E		1	50	7			BIV
1996 03 21.97		B	1.2	AA	0.0	E		1	75	7	11	251	SAI
1996 03 21.97		M	1.4	S	0.0	E		1	80		11	255	PRA01
1996 03 21.98		B	2.3:	Y	0.0	E		1	20				SZA
1996 03 22.00		B	0.5	AA	0.0	E		1					RUI01
1996 03 22.00		B	1.1	S	0.0	E		1	70	8	12	265	MAR02
1996 03 22.00		S	0.8	YG	0.7	E		1			10		SKI
1996 03 22.00		S	0.8	YG	5.0	R		10					SKI
1996 03 22.01		M	1.7	Y	5.0	B		7	36	7	2.1	260	KYS
1996 03 22.02		B	1.3	Y	0.0	E		1	36	6			KYS
1996 03 22.03		B	0.7	AA	0.0	E		1	&50	6	&6	249	GAS01
1996 03 22.03		M	0.6	AA	0.0	E		1	70	5	7.5	256	CHE03
1996 03 22.03		S	1.9	Y	5.0	B		12	45	D6	5.5	255	SZA04
1996 03 22.05					0.7	E		1	87	6/	9.6	247	GRA04
1996 03 22.05		M	0.8	YG	6.0	R	4	1					GRA04
1996 03 22.06					5.0	B		10	70	7	10.1	249	GRA04
1996 03 22.06		M	1.0	TI	0.0	E		1	100	3/	10	250	HOR02
1996 03 22.07		B	1.6	TI	0.0	E		1	60	4			DVO
1996 03 22.07		S	0.5	TI	0.0	E		1	60	4			DVO
1996 03 22.12		G	1.4:	AA	0.0	E		1					PER01
1996 03 22.12		I	1.5:	AA	0.0	E		1	&35	6			PER01
1996 03 22.19		S	1.4	AA	8.0	B		11	45	3	>4	270	DES01
1996 03 22.20		B	0.7	AA	0.0	E		1	80	6	10	230	TRI01
1996 03 22.20		B	0.8	AA	5.0	B		7	75	5	10		TRI01
1996 03 22.22		B	1.5	Y	0.0	E		1	&75	6/			GRE
1996 03 22.25		I	1.3	SC	0.0	E		1					DIL
1996 03 22.27		S	0.6	SC	0.7	E		1	70	7	13	245	DAH
1996 03 22.32		B	0.6	YF	0.0	E		1	66	8	15	230	ADA03
1996 03 22.36		M	1.1	AE	0.0	E		1	60		30	250	SCO01
1996 03 22.40		B	1.2	S	5.0	B		10	180	8	>25		GAL
1996 03 22.54		M	0.4	Y	0.0	E		1	80	6	5		YUS
1996 03 22.54		S	1.2	SC	0.0	E		1	80	S6	13	248	SHI
1996 03 22.56		B	0.9	AA	0.0	E		1	75	4	8	250	KAN
1996 03 22.56		I	0.2	S	0.0	E		1	60	7	10		OHM
1996 03 22.56		M	0.8	AA	0.0	E		1	60	6	7	270	MOR06
1996 03 22.60		S	0.6	AA	0.0	E		1	100	6	11	240	KOB01
1996 03 22.61		M	0.4	AA	0.0	E		1	110	6/	13	240	NAK01
1996 03 22.63		S	1.0	AA	0.0	E		1	80	7			PEA
1996 03 22.67		B	0.4	YF	0.0	E		1	60	7	10	245	YOS04
1996 03 22.88		B	0.5	AA	5.0	B		7	120	3	25	246	BAL02
1996 03 22.90		B	0.3	AA	0.0	E		1	&82	4	15	250	KUC01
1996 03 22.90		M	0.2	AA	0.0	E		1	75	6	17	245	CHE03
1996 03 22.90		S	1.4	AA	8.0	B		20	50	8			BAR
1996 03 22.94					0.7	E		1	127	6/	22	240	GRA04
1996 03 22.94		M	0.4	YG	6.0	R	4	1					GRA04
1996 03 22.94		S	0.3	YG	0.7	E		1	90	6	>10	240	SKI
1996 03 22.94		S	1.3	AA	5.0	B		7	60	7			BAR
1996 03 22.95		S	0.4	SC	0.7	E		1	66		8		ROG02
1996 03 22.98		S	1.0	AA	0.0	E		1	84	4/	15	244	HAV
1996 03 22.99					5.0	B		10	90	6	13	244	HAV
1996 03 22.99					5.0	B		10	101	7	15	244	GRA04
1996 03 22.99		N	7.9:	S	25.4	L	6	61					GRA04
1996 03 23.01		B	0.5	AA	0.0	E		1					RUI01
1996 03 23.02		M	1.0	AA	0.0	E		1	100	8	20	240	ZAN
1996 03 23.04		B	0.8	SC	0.0	E		1	60	8	5.5	247	BIV
1996 03 23.04		S	1.5	Y	0.0	E		1	20	3	12	220	SZA02
1996 03 23.06		S	0.8	AA	0.0	E		1	60	3	25	243	MER
1996 03 23.10		B	0.4	AA	0.0	E		1	&55	5	18	246	GAS01
1996 03 23.10		M	0.3	AA	0.0	E		1	82	6	18	242	CHE03
1996 03 23.11		B	0.4	S	0.0	E		1	120	3	16	242	GAR02
1996 03 23.13		B	0.3	AA	0.0	E		1	90	6	10	230	TRI01
1996 03 23.13		B	0.4	AA	5.0	B		7	80	6	10	230	TRI01
1996 03 23.14		B	0.6	SC	0.0	E		1			>6	245	BIV

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 23.15		B	0.5	AA	0.0	E		1	55	5	18		DEM01
1996 03 23.19		B	0.9	SC	0.0	E		1	60	7/			BIV
1996 03 23.20		B	1.5:	AA	5.0	B		10					SAN05
1996 03 23.24	a	B	0.7	HR	0.0	E		1					BOR
1996 03 23.24	a	I	0.7	HR	0.0	E		1					BOR
1996 03 23.24	a	S	0.2	HR	0.0	E		1	78	6	30	240	BOR
1996 03 23.25		M	1.5	AA	0.0	E		1	65	6/	10	260	SPR
1996 03 23.30		B	0.5	Y	0.0	E		1	120	7	30		GRE
1996 03 23.31		M	0.6:	Y	5.0	R		1					GRE
1996 03 23.31		S	0.7	Y	5.0	R		1					GRE
1996 03 23.35		M	1.4	AA	0.0	E		1	65	6/	12	245	SPR
1996 03 23.37		B	0.4	Y	0.5	E		1			28		FER
1996 03 23.57		M	0.5	Y	0.0	E		1	100	6	30	240	KIN
1996 03 23.58		M	0.9	SC	5.0	R		1	150		80	195	OME
1996 03 23.62		M	0.0	SC	0.0	E		1	85	6	32	230	KAT01
1996 03 23.62		M	0.4	AA	0.0	E		1	70	6	18	230	MOR06
1996 03 23.68					8.0	B		20	44	D8	12.0	229	PEA
1996 03 23.68		S	0.5	AA	0.0	E		1	75	7	30	229	PEA
1996 03 23.71		B	0.2	YF	0.0	E		1	60	6	25	235	YOS04
1996 03 23.75		M	0.1	Y	0.0	E		1	120	6	15		YUS
1996 03 23.76		S	0.9	S	15.0	R	5	25	40	3/	5.0		NAG02
1996 03 23.81		B	0.5	S	0.0	E		1	38	5	17.6		STE12
1996 03 23.82		M	0.1	AA	0.0	E		1	110	6	19	235	NAK01
1996 03 23.85		B	0.0	AA	0.0	E		1	60	3	18		PAK
1996 03 23.85		I	0.2	SC	0.0	E		1	30	S6	28	236	OGA01
1996 03 23.86		I	0.1	SC	0.0	E		1	60	S6	28	237	BAR06
1996 03 23.86		M	0.1	AA	0.0	E		1	90	6	27	231	CHE03
1996 03 23.89		B	0.2	AA	0.0	E		1	150	3	35	228	BAL02
1996 03 23.90		B	0.3	AA	0.0	E		1	60	5	15		DEM01
1996 03 23.90		S	0.8	Y	0.0	E		1	24	3	5	225	KES01
1996 03 23.91		M	0.7	Y	0.0	E		1	45	5	15	235	KYS
1996 03 23.91		M	0.8	Y	5.0	B		7	45	6	10	235	KYS
1996 03 23.92		B	0.3	AA	5.0	B		7	85	5	28	228	SAI
1996 03 23.92		S	0.5	SC	5.0	B		7	60	7	15	231	HEE
1996 03 23.93		S	1.2	SC	0.7	E		1		8	20	230	KVA
1996 03 23.94		B	1.2	Y	0.0	E		1	120	8	2	180	SZE02
1996 03 23.94		I	0.2	SC	0.0	E		1	60	S6			FIL05
1996 03 23.94		I	-0.3	AA	0.8	E		1	90	8	27	228	KAM01
1996 03 23.94		S	0.6	AA	12.5	R	5	20	40	6	10	225	BEA
1996 03 23.96		B	0.1	AA	0.0	E		1	108	4	27	270	KUC01
1996 03 23.96		B	0.6	Y	0.0	E		1	90	S7/	30	225	SAR02
1996 03 23.96		B	0.8	Y	0.0	E		1	75	s8	30	220	KER
1996 03 23.96		S	0.4	AA	0.0	E		1	60		26		DIM
1996 03 23.96		S	0.4	AA	0.0	E		1	90	3	35	238	MER
1996 03 23.96		S	1.0	AA	0.0	E		1	90		15		NUZ
1996 03 23.97		S	-0.5	SC	0.7	E		1	78		21		ROG02
1996 03 23.98		B	0.6	SC	0.0	E		1	90	7	28	228	BIV
1996 03 23.98		G	0.2	AT	0.0	E		1	&55				GON04
1996 03 23.98		G	0.5	AT	0.0	E		1					PER01
1996 03 23.98		I	0.3	AT	0.0	E		1	&65	6	27	230	PER01
1996 03 24.00		B	0.2	AA	0.0	E		1					RUI01
1996 03 24.00		G	0.0	AA	0.7	E		1	30		28		MAR17
1996 03 24.00		I	0.1	SC	0.0	E		1	35	S6	29	236	OGA01
1996 03 24.01		S	0.5	AA	0.0	E		1	96	5	28	227	HAV
1996 03 24.02					5.0	B		10	102	6/	42	214	HAV
1996 03 24.03		S	1.2	Y	5.0	B		12	60	D7	9	220	SZA04
1996 03 24.04		B	0.4	AA	5.0	B		10	180		20	230	PUJ01
1996 03 24.04		S	0.5	Y	0.0	E		1	100	s4	25		LAN02
1996 03 24.05		B	0.6	S	0.0	E		1	40		28		DAR
1996 03 24.06		B	0.1	AA	0.0	E		1	&80	6	30	227	GAS01
1996 03 24.06		I	0.0	SC	0.0	E		1	60	S6	30	234	BAR06
1996 03 24.06		M	0.8	AA	0.0	E		1	115	7/	30	225	ZAN
1996 03 24.08		S	0.2:	YG	0.7	E		1	120	6	>15		SKI
1996 03 24.09		B	0.3	S	0.0	E		1	120	4	31	233	GAR02

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 24.10		I	0.2	SC	0.0	E		1	35	S6	29	235	OGA01
1996 03 24.10		M	0.1	AA	0.0	E		1	100	6	30	228	CHE03
1996 03 24.12		B	0.5	AA	0.0	E		1	50	2	26	225	VAN06
1996 03 24.12		B	0.5	Y	0.0	E		1					GRE
1996 03 24.12		S	0.5	AA	0.0	E		1	50		15		DES01
1996 03 24.15		B	0.0	S	0.0	E		1	120	8/	40	230	SAN04
1996 03 24.15		B	0.1	S	0.0	E		1	135	7/	35	240	MAR02
1996 03 24.16		B	0.3	AA	0.0	E		1	95	7	28	225	TRI01
1996 03 24.17		I	0.1	SC	0.0	E		1	60	S6	33	233	BAR06
1996 03 24.17		S	0.2	AA	0.0	E		1	120	6	28	215	DIE02
1996 03 24.18		B	0.5	SP	0.0	E		1			5		MAR03
1996 03 24.18		S	0.2	AA	8.0	B		11	35	3/	15	260	DES01
1996 03 24.21		M	0.6	AA	0.0	E		1	85	6/	15	230	SPR
1996 03 24.22		I	0.8	SC	0.0	E		1					DIL
1996 03 24.24		S	-0.1	SC	0.7	E		1	110	7/	40	230	DAH
1996 03 24.28		B	0.5	Y	0.0	E		1	150	7/	35		GRE
1996 03 24.28	a	B	0.1	YF	0.0	E		1	&60	8	10	220	ADA03
1996 03 24.30		M	0.3	Y	5.0	R		1					GRE
1996 03 24.34		B	0.6	HR	0.0	E		1					BOR
1996 03 24.34		S	0.1	HR	0.0	E		1	66	6	50	225	BOR
1996 03 24.38		B	0.4	Y	0.5	E		1			32		FER
1996 03 24.41		B	0.3	Y	0.0	E		1					GRE
1996 03 24.54		M	0.9	SC	5.0	R		1	150		70	220	OME
1996 03 24.82		M	-0.2	YG	0.7	E		1	96	6/	7.5	218	GRA04
1996 03 24.83		B	-0.2:	AA	0.0	E		1	98	4	10	230	KUC01
1996 03 24.84		S	-0.2	YG	0.7	E		1	120	7	28	215	SKI
1996 03 24.85		I	-0.4	SC	0.0	E		1	60	S6	40	212	BAR06
1996 03 24.85		S	0.2	AA	0.0	E		1	90	3	30	238	MER
1996 03 24.86		I	0.0	SC	0.0	E		1	150	S6	30		ISH03
1996 03 24.86		M	-0.1:	AA	0.0	E		1					CHE03
1996 03 24.88		B	0.6	S	0.0	E		1	40				DAR
1996 03 24.88		S	-0.1	AA	12.5	R	5	20	40	6	10	225	BEA
1996 03 24.88		S	-0.3	AA	5.0	B		7	60	7	12	220	BAR
1996 03 24.90		I	-0.2	SC	0.0	E		1	50	S6	39	210	OGA01
1996 03 24.92		B	0.1	AA	0.0	E		1					RUI01
1996 03 24.92		S	-0.5	AA	0.0	E		1	70	6	20	220	BAR
1996 03 24.93		B	0.4	AA	5.0	B		10	180		20	225	PUJ01
1996 03 24.95		S	0.2	YG	0.7	E		1		6	35	216	HIL02
1996 03 24.95		S	-0.5	AA	0.0	E		1	120		42		NUZ
1996 03 24.97		B	1.4:	AA	5.0	B		10					SAN05
1996 03 24.97		S	0.0	S	0.8	E		1	>99	7	20	90	BEC01
1996 03 24.99		I	-0.2	AA	0.8	E		1	90	8	45	218	KAM01
1996 03 24.99		S	0.0	AA	0.0	E		1	120	6	30		BRO04
1996 03 25.00		M	0.5	AA	0.0	E		1	120	7	40	210	ZAN
1996 03 25.02		B	0.5	AA	0.0	E		1	90	1	57	215	VAN06
1996 03 25.03		B	0.2	AA	0.0	E		1	100	7	34	220	TRI01
1996 03 25.03		B	0.3	AA	5.0	B		7	90	6	20	220	TRI01
1996 03 25.04		B	-0.2	Y	0.0	E		1	120	s7	50	210	SAR02
1996 03 25.04		S	0.2	AA	0.0	E		1	120	5/	35	214	HAV
1996 03 25.05					0.0	E		1	72	7	31	215	BOR
1996 03 25.05					5.0	B		10	120	7	35	214	HAV
1996 03 25.05	a	B	0.4	HR	0.0	E		1					BOR
1996 03 25.05	a	I	1.0	HR	0.0	E		1					BOR
1996 03 25.05	a	S	0.3	HR	5.0	R		1					BOR
1996 03 25.06		S	-0.2	YG	0.7	E		1	120	7	50	214	SKI
1996 03 25.08		B	0.2	AA	0.0	E		1	110	6	50		MIL02
1996 03 25.08		B	0.2	AA	0.0	E		1	120	6	50		MIL02
1996 03 25.08		M	-0.3	YG	0.7	E		1	110	6/	34	211	GRA04
1996 03 25.09		B	0.4	Y	0.0	E		1	&60	7/			GRE
1996 03 25.09		M	-0.3	YG	6.0	R	4	1					GRA04
1996 03 25.09		S	-0.5	AA	0.8	E		1	80	7	15	210	MOE
1996 03 25.10		B	-0.1	AA	0.0	E		1	60	4	28		KUC01
1996 03 25.19		B	1.1:	AA	5.0	B		10					SAN05
1996 03 25.20		S	0.4	AA	0.0	E		1	120	6/	25	215	SPR

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 25.27		B	0.5	Y	5.0	R		1					GRE
1996 03 25.27		M	0.5	Y	5.0	R		1					GRE
1996 03 25.30		B	0.3	Y	0.0	E		1	132	7/	50		GRE
1996 03 25.30		S	0.0	AA	8.0	B		11	35	3/	15	260	DES01
1996 03 25.48		M	-0.5	Y	0.0	E		1	110	6	50	220	YUS
1996 03 25.53		M	-0.4	AA	0.0	E		1	70	7	22	210	MOR06
1996 03 25.56		M	-0.2	SC	0.0	E		1	120	6	55	215	KAT01
1996 03 25.60		S	0.2	SC	0.0	E		1	120	s5	44	213	SHI
1996 03 25.60		S	-0.2	Y	0.0	E		1	120	6	60	220	KOB01
1996 03 25.64		B	0.4	AA	0.0	E		1	115	5	37	215	KAN
1996 03 25.64		M	-0.2	AA	0.0	E		1	120	6	62	210	NAK01
1996 03 25.76		B	-0.5:	S	0.0	E		1	113	5	25		STE12
1996 03 25.79		S	0.3	S	15.0	R	5	25	45	4	6		NAG02
1996 03 25.80		M	-0.2	S	0.0	E		1	120	4/			PLS
1996 03 25.80		O	0.4	SP	0.0	E		1	95	6	19		ZNO
1996 03 25.81		M	-0.4	YG	0.7	E		1	113	6	15	209	GRA04
1996 03 25.82		M	0.2	Y	5.0	B		7	50	8	10	210	KYS
1996 03 25.82		M	-0.3	Y	0.0	E		1	64	6	30	210	KYS
1996 03 25.82		S	0.6	Y	4.5	R	12	12			15	230	CSO
1996 03 25.83		B	0.6	TI	0.0	E		1	120	5			DVO
1996 03 25.83		I	-0.6	SC	0.0	E		1	60	S6			BAR06
1996 03 25.83		M	-0.5	Y	0.7	E		1	96	7	35	210	BOU
1996 03 25.83		S	0.4	YG	0.7	E		1	40	7	30	205	HIL02
1996 03 25.85		M	0.3	TI	5.0	B		7	120	5	7		DVO
1996 03 25.86		G	0.3	AT	0.0	E		1					PER01
1996 03 25.86		I	0.3	AT	0.0	E		1	&36	6	33	220	PER01
1996 03 25.86		S	0.6	Y	0.0	E		1	20	2	28	210	KES01
1996 03 25.88		B	0.2	AA	5.0	B		7		7			TRI01
1996 03 25.88		M	0.1	S	0.0	E		1	90				PRA01
1996 03 25.89		B	0.6	S	8	R	6	24	54	5			KON06
1996 03 25.89		S	-0.1	AA	0.0	E		1	90	3	35		MER
1996 03 25.91		B	-0.3	AA	0.0	E		1	60	4	36		KUC01
1996 03 25.91		M	-0.2	AA	0.0	E		1	&90	6	20	195	CHE03
1996 03 25.94		B	0.5:	SC	0.0	E		1	80				BIV
1996 03 25.94		B	-0.3	AA	0.0	E		1	150	3	40	210	BAL02
1996 03 25.96		B	-0.2	AA	0.0	E		1	60	4	36		KUC01
1996 03 25.97		G	0.0	AT	0.0	E		1	&48				VIT01
1996 03 25.99		M	-0.3	S	0.0	E		1	120	5	55	150	HOR02
1996 03 25.99		S	-0.4	YG	0.7	E		1	108	7	46	203	SKI
1996 03 26.01		G	0.2	AT	0.0	E		1					PER01
1996 03 26.01		G	0.3	AT	0.0	E		1					VIT01
1996 03 26.01		I	0.2	AT	0.0	E		1	&48	6	50		PER01
1996 03 26.02		M	0.2	S	0.0	E		1	90		55		PRA01
1996 03 26.02		S	0.0:	AE	3.5	R		1	&90	7/			GRE
1996 03 26.04		B	-0.2	Y	0.0	E		1	120		60	210	KER
1996 03 26.04		S	-0.5	SC	0.7	E		1	80	6	12	197	DAH
1996 03 26.05		M	-0.5	YG	0.7	E		1	103	6	23	206	GRA04
1996 03 26.05		N	7.9	HI	20.3	T	10	123					GRA04
1996 03 26.06		B	0.4	AE	5.0	R		1	&90	7/			GRE
1996 03 26.06		M	0.3	AE	5.0	R		1					GRE
1996 03 26.07		S	0.5	Y	0.0	E		1	30		35	240	CSO
1996 03 26.08		I	-0.2	SC	0.0	E		1	70	s5	90	185	BAR06
1996 03 26.08		S	0.6	YG	0.7	E		1	60		55	205	HIL02
1996 03 26.08		S	-0.4	YG	0.7	E		1	108	7	52	202	SKI
1996 03 26.10		B	0.9	SC	0.0	E		1	80	7	45	210	BIV
1996 03 26.10		M	0.1	S	0.0	E		1	150	4/			PLS
1996 03 26.11		G	0.4	AT	0.0	E		1					PER01
1996 03 26.11		G	0.4	AT	0.0	E		1	&48				VIT01
1996 03 26.11		I	0.1	AT	0.0	E		1	&72	6	50		PER01
1996 03 26.13		M	0.4	Y	5.0	B		7	55	8	8	210	KYS
1996 03 26.14		M	0.0	Y	0.0	E		1	50	7	15	210	KYS
1996 03 26.15		S	0.0	SC	0.7	E		1	72		37		ROG02
1996 03 26.19		S	0.3	AA	0.0	E		1	85	6/	15	205	SPR
1996 03 26.19	a	B	0.3	HR	0.0	E		1					BOR

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 26.19	a	I	0.8	HR	0.0	E		1					BOR
1996 03 26.19	a	S	0.3	HR	0.0	E		1	66	6/	54	207	BOR
1996 03 26.19	a	S	0.3	HR	5.0	R		1					BOR
1996 03 26.25		B	0.3	Y	0.0	E		1	&90	7/	10		GRE
1996 03 26.25		M	0.3	Y	5.0	R		1					GRE
1996 03 26.34	a	S	0.0	YF	0.0	E		1	85	8	45	210	ADA03
1996 03 26.49		S	0.4	SC	0.0	E		1	100	s5	58	208	SHI
1996 03 26.51		M	0.0	SC	0.0	E		1	80	6	65	205	KAT01
1996 03 26.57		B	0.6	AA	0.0	E		1	100	4	15	190	KAN
1996 03 26.58		B	0.0	YF	0.0	E		1	50	6	30	195	YOS04
1996 03 26.58		M	0.9	SC	5.0	R		1	100		80		OME
1996 03 26.80		M	-0.2	YG	0.7	E		1	88	6	15	180	GRA04
1996 03 26.81		M	0.0:	AA	0.0	E		1	60	6			CHE03
1996 03 26.84		S	0.0	Y	0.0	E		1	60	9	50	180	KIS02
1996 03 26.85		B	0.3	AA	0.0	E		1	90	7	22	180	TRI01
1996 03 26.86		G	-0.3	SP	0.8	E		1	45	5	28	170	SHA02
1996 03 26.86		S	0.1	SC	0.6	E		1	60	5	8	200	OKS
1996 03 26.90		I	-0.4	SC	0.0	E		1	60	S6	40	190	OGA01
1996 03 26.92		G	0.0	AA	0.7	E		1					MAR17
1996 03 26.94		S	-0.3	YG	0.7	E		1	90	6	45	162	SKI
1996 03 26.95		S	-0.1	AA	12.5	R	5	20	40	7	20	180	BEA
1996 03 26.98		I	-0.5	SC	0.0	E		1	150	8	50		ISH03
1996 03 26.99		I	0.1	SC	0.0	E		1	90	5	110	179	BAR06
1996 03 27.04		S	-0.2	AA	0.8	E		1	55	7	72	149	MOE
1996 03 27.06		B	0.5	S	0.0	E		1		7	73	145	MAR02
1996 03 27.08		M	-0.1	YG	0.7	E		1	84	6/	45	143	GRA04
1996 03 27.08		M	-0.2	Y	0.7	E		1	90	7	75	127	BOU
1996 03 27.09					5.0	B		10	71	6/	31	143	GRA04
1996 03 27.09		M	-0.1	YG	6.0	R	4	1					GRA04
1996 03 27.09		S	-0.3	YG	0.7	E		1	90	6	40	144	SKI
1996 03 27.10		G	0.4	AT	0.0	E		1					PER01
1996 03 27.10		I	0.2	AT	0.0	E		1	&42	7	60	130	PER01
1996 03 27.10	!	M	0.4	AA	0.0	E		1	&60	7/	45	145	MIK
1996 03 27.12		B	0.5	Y	0.0	E		1					GRE
1996 03 27.12		G	0.3	SP	0.8	E		1	45	5	60	120	SHA02
1996 03 27.14		N	8.4	S	20.3	T	10	123					GRA04
1996 03 27.15		S	0.8	SC	0.7	E		1	36		26		ROG02
1996 03 27.16		S	-0.1	AA	0.0	E		1	120	6	42	110	DIE02
1996 03 27.18		B	0.5	AA	5.0	B		7	85	6	30	100	TRI01
1996 03 27.18		B	0.5	SP	0.0	E		1					MAR03
1996 03 27.18		G	0.8	AT	0.0	E		1					PER01
1996 03 27.18		G	1.3	AT	0.0	E		1	&52	6/	40	130	VIT01
1996 03 27.18		I	0.8	AT	0.0	E		1	&52	7	60	130	PER01
1996 03 27.19		B	0.4	AA	0.0	E		1	90	7	42	100	TRI01
1996 03 27.27	a	B	0.4	HR	0.0	E		1					BOR
1996 03 27.27	a	I	0.6	HR	0.0	E		1					BOR
1996 03 27.27	a	S	0.3	HR	0.0	E		1	60	6/	70	95	BOR
1996 03 27.34		M	0.5	Y	5.0	R		1	120	7/	60		GRE
1996 03 27.69		M	0.2	Y	0.0	E		1	100	6	30		YUS
1996 03 27.78		B	0.6	TI	0.0	E		1		7	20		DVO
1996 03 27.79		M	0.3	TI	5.0	B		7		7	20		DVO
1996 03 27.80		M	0.4	S	0.0	E		1	70	6/	45	60	HOR02
1996 03 27.81		G	1.1	SP	0.8	E		1	20	5			SHA02
1996 03 27.81		M	0.1	Y	0.0	E		1	47	7	40	55	KYS
1996 03 27.81		M	0.5	Y	5.0	B		7	47	8	15	55	KYS
1996 03 27.81		0	0.6	SP	0.0	E		1	80	6	45		ZNO
1996 03 27.82		B	1.0	S	8	R	6	24	48	5/			KON06
1996 03 27.82		M	0.4	AA	0.0	E		1	55	6	10	55	CHE03
1996 03 27.84		B	1.2:	AA	5.0	B		10					SAN05
1996 03 27.85		S	0.0	SP	0.7	E		1	40	5	6		KIE01
1996 03 27.86		S	0.6	AA	0.8	E		1	70	7	31	58	MOE
1996 03 27.87		I	0.2	SC	0.0	E		1		6			KHA01
1996 03 27.87		M	0.4	S	0.0	E		1	80	6	37	50	PLS
1996 03 27.90		B	0.5	S	0.0	E		1	86	5	21		STE12

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 27.90		B	0.6	AA	0.0	E		1	72	7	20		TRI01
1996 03 27.90		G	1.1	SP	0.8	E		1	60	5	21	60	SHA02
1996 03 27.90		S	0.3	AA	0.0	E		1			52		DIM
1996 03 27.91		S	0.6:	YG	0.7	E		1	75	6			SKI
1996 03 27.92		O	0.9	SP	0.0	E		1	40		3		POD
1996 03 27.93		S	0.3	AA	0.0	E		1	90	6	24	54	BRO04
1996 03 27.94		S	0.3	AA	0.0	E		1	60	3/			MER
1996 03 27.96		B	1.2	SC	0.0	E		1	70	6/	30	55	BIV
1996 03 27.97		S	0.0	AA	12.5	R	5	20	35	7	8		BEA
1996 03 27.97		S	0.1	AA	0.0	E		1	90	6	32	56	DIE02
1996 03 28.00		S	0.3	Y	0.0	E		1	60	D6	25	190	SZA04
1996 03 28.06		M	0.6	S	0.0	E		1	65	7	90	60	HOR02
1996 03 28.06		M	0.7	Y	5.0	R		1	&80	7/	&5		GRE
1996 03 28.07		B	0.3	AA	0.0	E		1	&50	5	40	55	GAS01
1996 03 28.07		M	0.2	Y	0.0	E		1	65	7	103	52	KYS
1996 03 28.07		M	1.0	S	0.0	E		1	60		70		PRA01
1996 03 28.08		B	1.3	Y	0.0	E		1		5	60	60	SZA
1996 03 28.08		O	0.7	SP	0.0	E		1	75	6	62		ZNO
1996 03 28.08	a	B	1.0	HR	0.0	E		1					BOR
1996 03 28.08	a	I	1.0	HR	0.0	E		1					BOR
1996 03 28.08	a	S	0.7	HR	0.0	E		1	54	7	25	55	BOR
1996 03 28.08	a	S	0.9	HR	5.0	R		1					BOR
1996 03 28.10		M	0.8	S	0.0	E		1	95	6	66	50	PLS
1996 03 28.12		I	0.6	AA	0.8	E		1	75	8	36	59	KAM01
1996 03 28.13		S	1.0	AA	0.0	E		1	65	7/	60	45	ZAN
1996 03 28.15		S	0.9	SC	0.7	E		1	&30		17		ROG02
1996 03 28.16		B	0.7	SC	0.0	E		1	70	6	60	55	BIV
1996 03 28.19		S	1.3	AA	0.0	E		1	50	6/	15	50	SPR
1996 03 28.31		B	1.2	Y	5.0	R		1	100	7/	65		GRE
1996 03 28.31		M	1.1	Y	5.0	R		1					GRE
1996 03 28.31	a	S	0.9	HR	0.0	E		1			25	55	BOR
1996 03 28.75		M	0.7	Y	0.0	E		1	80	6	43		YUS
1996 03 28.76		M	0.9	AA	0.0	E		1	&40	6	10	55	CHE03
1996 03 28.78		B	1.4	S	8	R	6	24	36	6			KON06
1996 03 28.78	a	B	0.5	AA	0.0	E		1	50	4/	8		MIL02
1996 03 28.80		B	0.9	S	0.0	E		1	60	5	18		STE12
1996 03 28.81		B	1.2	S	0.0	E		1	42	6/	25	45	PLS
1996 03 28.81		M	1.0	S	0.0	E		1	55	7	35	55	HOR02
1996 03 28.81		S	1.5	Y	0.0	E		1	20				BAR05
1996 03 28.83		B	0.6	TI	0.0	E		1	60	7	7		DVO
1996 03 28.83		M	0.4	TI	5.0	B		7	60	7	7		DVO
1996 03 28.83		O	0.9	SP	0.0	E		1	60	5			ZNO
1996 03 28.84		B	1.3	SC	0.0	E		1	50	6	>5	50	BIV
1996 03 28.84		S	-0.4	Y	0.0	E		1	78	D5/	50	160	SZA04
1996 03 28.85		G	0.7	AT	0.0	E		1					VIT01
1996 03 28.85		G	1.1	AT	0.0	E		1					PER01
1996 03 28.85		I	1.1	AT	0.0	E		1	&35	8	27	60	PER01
1996 03 28.85		I	1.1	AT	0.0	E		1	&42	7	27	60	VIT01
1996 03 28.86		B	1.0	Y	0.0	E		1	132	7	6		SZE02
1996 03 28.86		B	1.3:	AA	5.0	B		10					SAN05
1996 03 28.87		O	1.1	SP	0.0	E		1	40		3		POD
1996 03 28.90		S	0.3	AA	0.0	E		1			45		DIM
1996 03 28.90		S	0.5	AA	0.0	E		1	45	3/			MER
1996 03 28.90		S	1.4	SC	0.7	E		1	50	6	6	45	HEE
1996 03 28.94		M	0.9	YG	0.7	E		1	51	6	15	49	GRA04
1996 03 28.96		S	0.1	AA	12.5	R	5	20	30	7	5		BEA
1996 03 28.97		S	0.8	SC	0.6	E		1	40	5	6	50	OKS
1996 03 28.98		S	0.5	YG	0.7	E		1	60	6/	15	48	SKI
1996 03 28.99		B	0.6	AA	0.0	E		1			18	57	SAN06
1996 03 29.04		B	0.2	Y	0.0	E		1	60	s7	40	40	KER
1996 03 29.04		S	0.7	Y	0.0	E		1	60	S7/	40	50	SAR02
1996 03 29.06		B	1.6	Y	0.0	E		1	50	4	12		SZA
1996 03 29.06		S	0.5	Y	5.0	B		10	40	8	45	40	BOJ
1996 03 29.10		S	1.2	YG	0.7	E		1	15	4	25	48	HIL02

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 29.13		S	0.7	YG	0.7	E		1	54	7	15		SKI
1996 03 29.14		G	1.8	SP	0.8	E		1	20	7	40	50	SHA02
1996 03 29.14		S	1.3	AA	0.0	E		1	55	8	45	45	ZAN
1996 03 29.14		S	2.9	Y	0.0	E		1	7	7	3.0	40	KES01
1996 03 29.15	a	G	1.3	AT	0.0	E		1					PER01
1996 03 29.15	a	I	0.7	AT	0.0	E		1	&41	8	30	50	PER01
1996 03 29.16		S	1.2	SC	0.7	E		1	24		10		ROG02
1996 03 29.18		S	1.5	AA	0.0	E		1	40	6/	10	48	SPR
1996 03 29.19		M	2.1	SP	5.0	B		7	18	7			SHA02
1996 03 29.20		B	1.1	AA	0.0	E		1	72	7	45		TRI01
1996 03 29.42		S	0.9	SC	0.0	E		1	80	s5	45	40	SHI
1996 03 29.80		M	1.3	S	0.0	E		1	40	7	20	50	HOR02
1996 03 29.82		M	0.7	Y	0.0	E		1	30	5	12	40	KYS
1996 03 29.82		M	0.8	Y	5.0	B		7	30	7	6	40	KYS
1996 03 29.82		M	1.3	TI	5.0	B		7	55	7	5		DVO
1996 03 29.82		S	2.0	Y	0.0	E		1	10				BAR05
1996 03 29.82		S	2.2	Y	3.0	B		3					BAR05
1996 03 29.83		O	1.3	SP	0.0	E		1	45	4/			ZNO
1996 03 29.83		S	1.0	AA	5.0	B		7	50	6	3	55	BAR
1996 03 29.84		B	1.6	S	8	R	6	24	36	5/			KON06
1996 03 29.84		B	1.7	S	0.0	E		1	60	7	15	50	PLS
1996 03 29.84		S	1.5	Y	24.4	L		70	15	6/	0.5		PAP02
1996 03 29.86		B	1.3	AA	5.0	B		10	180		5		PUJ01
1996 03 29.87		I	1.6	AT	0.0	E		1	>24	7	>5	55	PER01
1996 03 29.87		S	1.7	AA	0.0	E		1	60	6			DIE02
1996 03 29.88		S	1.5	SC	0.7	E		1			17		ROG02
1996 03 29.89		B	1.4	SC	0.0	E		1	40	6			BIV
1996 03 29.89		G	1.5	SP	0.8	E		1	15	7	20	48	SHA02
1996 03 29.89		S	1.3	SC	0.6	E		1	30	7	6	60	OKS
1996 03 29.90		S	0.1	AA	12.5	R	5	20	30	7	4		BEA
1996 03 29.94		S	1.7	Y	5.0	B		10	15	5	10	50	KES02
1996 03 30.00		N	7.6	HI	20.3	T	10	80					GRA04
1996 03 30.00		S	1.1	YG	0.7	E		1	51	6			GRA04
1996 03 30.09		S	2.4	SC	5.0	B		7	&20		2.0	40	DIL
1996 03 30.10		B	1.8	Y	0.0	E		1	&70	7/			GRE
1996 03 30.10		M	1.6	Y	5.0	R		1					GRE
1996 03 30.11		S	0.9	YG	0.7	E		1	45	7	11	46	SKI
1996 03 30.11	a	B	1.6	HR	0.0	E		1					BOR
1996 03 30.11	a	I	1.7	HR	0.0	E		1					BOR
1996 03 30.11	a	S	1.2	HR	0.0	E		1	0.8	7	15.5	55	BOR
1996 03 30.11	a	S	1.3	HR	5.0	R		1					BOR
1996 03 30.14		S	1.5	AA	0.0	E		1	40	7/	30	45	ZAN
1996 03 30.15		B	1.5	AA	0.0	E		1	60	6	10		TRI01
1996 03 30.16		G	1.2	SP	0.8	E		1	18	8	35	48	SHA02
1996 03 30.16		M	2.7	SP	5.0	B		7	24	7			SHA02
1996 03 30.18		G	3.0:	AA	0.7	E		1					MAR17
1996 03 30.19		S	1.6	AA	0.0	E		1	30	7/	7	30	SPR
1996 03 30.27		M	1.8	SC	0.0	E		1			15		OME
1996 03 30.35		B	1.8	Y	5.0	R		1	&50	7/	30		GRE
1996 03 30.35		M	2.1	Y	5.0	R		1					GRE
1996 03 30.35		S	2.3	Y	5.0	R		1					GRE
1996 03 30.82		S	2.0	Y	0.0	E		1	15				BAR05
1996 03 30.82		S	2.3	Y	3.0	B		3					BAR05
1996 03 30.83		O	1.2	Y	0.0	E		1	25	6	> 3	40	KYS
1996 03 30.85		M	0.7	Y	0.7	E		1	35	7	20	46	BOU
1996 03 30.85		S	1.0	Y	5.0	B		12	40	D7	8		SZA04
1996 03 30.85		S	1.5	AA	0.0	E		1	60		20		DIM
1996 03 30.85		S	1.8	AA	0.0	E		1			20		NUZ
1996 03 30.86					5.0	B		10	29	7	7.0	47	GRA04
1996 03 30.86		M	1.4	YG	0.7	E		1	47	6	11	47	GRA04
1996 03 30.86		M	1.6	AA	5.0	B		7	25	5		50	CHE03
1996 03 30.88		S	1.7	AA	0.0	E		1	80	6	12	41	DIE02
1996 03 30.89		B	1.6:	S	0.0	E		1	40	6/			HOR02
1996 03 30.89		S	1.6	AA	0.0	E		1	30	3/			MER

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 30.91		B	1.7	SC	0.0	E		1	30	7	>5	50	BIV
1996 03 30.92		S	1.4	YG	0.7	E		1	30	7/	10	44	SKI
1996 03 31.05		M	2.1	Y	5.0	R		1	&60	7/			GRE
1996 03 31.06		B	2.3	Y	3.5	R		7	&30	7/	&5		GRE
1996 03 31.06	a	B	1.8	HR	0.0	E		1					BOR
1996 03 31.06	a	I	1.9	HR	0.0	E		1					BOR
1996 03 31.06	a	S	1.3	HR	0.0	E		1	0.6	6	18.5	55	BOR
1996 03 31.08		B	1.9	SC	11	B		20	&30	S6		60	BAR06
1996 03 31.08		B	2.3:	AA	0.0	E		1	35	3	10	55	BAL02
1996 03 31.14		S	1.6	AA	0.0	E		1	40	7/	30	45	ZAN
1996 03 31.27		M	1.9	SC	0.0	E		1					OME
1996 03 31.78		B	1.2	Y	0.0	E		1	30		5		MIZ01
1996 03 31.78		M	1.3	Y	0.0	E		1	20	6	10	50	KYS
1996 03 31.78		M	1.4	Y	5.0	B		7	22	7	10	50	KYS
1996 03 31.78		M	1.5	TI	5.0	B		7	30	5			DVO
1996 03 31.79		M	2.2	S	0.0	E		1	30				PRA01
1996 03 31.79		O	1.7	SP	0.0	E		1	35	5			ZNO
1996 03 31.80		S	1.5	AA	8.0	B		20	35	8	3	60	BAR
1996 03 31.80		S	2.0	Y	0.0	E		1	20				BAR05
1996 03 31.80		S	2.5	Y	3.0	B		3					BAR05
1996 03 31.83		M	1.8:	AA	5.0	B		7	25	5			CHE03
1996 03 31.83		S	1.8	AA	5.0	B		10	35	6	8	45	MOE
1996 03 31.83		S	2.6	Y	0.0	E		1	7	6	4	40	KES01
1996 03 31.84		B	1.9:	S	0.0	E		1	35	7			HOR02
1996 03 31.86		S	1.5	Y	20.0	L		45	11	6	15	60	FOR01
1996 03 31.86		S	1.6:	YG	0.7	E		1	30	7	5		SKI
1996 03 31.87		M	1.3	Y	0.7	E		1	30	7			BOU
1996 03 31.88		B	1.4	Y	0.0	E		1	20	5	20	50	KYS
1996 03 31.89		B	2.0	Y	0.0	E		1	20	S7/	5	45	SAR02
1996 03 31.90		S	0.9	AA	12.5	R	5	20	25	7	6		BEA
1996 04 01.08		M	2.1	Y	5.0	R		1	&30	8			GRE
1996 04 01.09		M	1.6:	YG	5.0	B		10	20	5			GRA04
1996 04 01.12		M	2.3	Y	5.0	B		7	18	8	10	50	KYS
1996 04 01.16		G	1.7	SP	0.8	E		1	10	8	12	47	SHA02
1996 04 01.17		M	1.7	SP	5.0	B		7	15	7	16	47	SHA02
1996 04 01.29	$	S	1.0:	YF	0.0	E		1	&30	5/	&2		ADA03
1996 04 01.75		B	2.3	SC	11	B		20	&30	S6	4	45	BAR06
1996 04 01.78		M	2.4	S	0.0	E		1					PRA01
1996 04 01.81		S	2.0	AA	5.0	B		10	30	6	5	45	MOE
1996 04 01.82		B	1.6	AA	5.0	B		10					SAN05
1996 04 01.83		M	1.8	Y	5.0	B		7	18	7	10	47	BOU
1996 04 01.83		S	2.4	AA	0.0	E		1	25	6		50	DIE02
1996 04 01.84		G	2.6	SP	0.8	E		1	18	8	6	51	SHA02
1996 04 01.84		M	1.7	Y	0.7	E		1		7/			BOU
1996 04 01.84		M	2.7	SP	5.0	B		7	17	7	4.2	49	SHA02
1996 04 01.85		S	2.2	SC	0.7	E		1	15		4		ROG02
1996 04 01.86		B	2.2	SC	0.0	E		1					BIV
1996 04 01.86		M	2.0	YG	0.7	E		1	35	6			GRA04
1996 04 01.86		M	2.1	YG	5.0	B		10	23	6/	2.7	54	GRA04
1996 04 01.86		N	7.2	HI	20.3	T	10	77					GRA04
1996 04 01.87		B	2.5	SP	8.0	B		10	30		3		POD
1996 04 01.87		S	2.4	SC	0.6	E		1	15	5			OKS
1996 04 01.89		I	2.5	AT	0.0	E		1	&20	8	&1.5	55	PER01
1996 04 01.89		M	2.4	AT	3.4	B		9	&15	6	&2.7	55	PER01
1996 04 01.90		B	2.2	AA	5.0	B		7	23	5	3	40	TRI01
1996 04 01.90		S	2.2	YG	0.7	E		1	4	7			HIL02
1996 04 02.43		M	2.2	SC	0.0	E		1	30	6			KAT01
1996 04 02.50		S	1.8	S	15.0	R	5	25	13	5	3		NAG02
1996 04 02.51		M	2.3	AA	0.0	E		1	30	6			KOB01
1996 04 02.81		B	1.8:	AA	5.0	B		10					SAN05
1996 04 02.82		S	2.3	AA	5.0	B		10	30	7	4	45	MOE
1996 04 02.84		B	2.7	AA	5.0	B		12		4	1.3	44	SAN06
1996 04 02.84		G	2.8	SP	0.8	E		1	18	8	2.4	51	SHA02
1996 04 02.84		M	2.9	SP	5.0	B		7	14	7	3.2	51	SHA02

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 02.84		S	2.4	AA	5.0	B		7	20	S4			MER
1996 04 02.87		S	2.4	YG	0.7	E		1	8	6	2		HIL02
1996 04 02.88		B	2.6	SC	0.0	E		1	25	6	4	47	BIV
1996 04 02.92		B	2.4	AA	0.0	E		1	25	6			TRI01
1996 04 02.92		S	1.9	YG	0.7	E		1	18	7	3		SKI
1996 04 02.92		S	2.2	YG	3.5	B		7	15	6	2.5		SKJ
1996 04 02.93		B	2.4	AA	5.0	B		7	22	5	2.5	40	TRI01
1996 04 02.93		I	2.5	AT	0.0	E		1	&20	7/			PER01
1996 04 02.93		M	2.3	AT	3.4	B		9	> 9	6	&1.5		PER01
1996 04 02.99		M	2.3	YG	5.0	B		10	13	7	2.2	49	GRA04
1996 04 03.06		B	2.2	AA	0.0	E		1	&20	5			GRE
1996 04 03.06		B	2.9	AA	5.0	B		12	&12	6			GRE
1996 04 03.06		M	2.4	AA	5.0	R		1					GRE
1996 04 03.06		S	2.4	AA	5.0	B		12	&12	6	&3		GRE
1996 04 03.25		M	2.3	SC	0.0	E		1					OME
1996 04 03.46		M	2.4	AA	0.0	E		1	35	6			KOB01
1996 04 03.47		S	1.8	S	15.0	R	5	25	11	5	2.5		NAG02
1996 04 03.54		S	1.6	SC	3.0	B		10	25	s5	21	45	SHI
1996 04 03.82		B	2.3	AA	5.0	B		10					SAN05
1996 04 03.82		B	2.5	AA	5.0	B		7	22	5	4	40	TRI01
1996 04 03.83		B	2.4	AA	0.0	E		1	25	6			TRI01
1996 04 03.83		S	2.4	AA	0.0	E		1		6		50	DIE02
1996 04 03.84		B	2.8	AT	3.4	B		9					PER01
1996 04 03.84		I	2.7	AT	0.0	E		1		8			PER01
1996 04 03.84		M	2.7	AT	3.4	B		9	> 9	6/	&2.5	45	PER01
1996 04 03.85		B	3.0	AT	3.4	B		9					VIT01
1996 04 03.85		I	3.0	AT	0.0	E		1		8			VIT01
1996 04 03.85		S	2.6	AA	5.0	B		7	17	S5			MER
1996 04 03.86		B	2.0	AA	8.0	B		11	15		1.5		LOS
1996 04 03.86		M	2.9	AT	3.4	B		9	& 9	7	&1.9	45	VIT01
1996 04 03.87		M	2.6:	YG	5.0	B		10	10	6	1		GRA04
1996 04 03.87		M	2.8	SP	5.0	B		7	9	6	2.3	44	SHA02
1996 04 03.88		B	2.9	AA	5.0	B		7					LON
1996 04 03.88		B	3.1	AA	5.0	B		7					RUI01
1996 04 03.90		B	3.1	S	0.0	E		1	10				DAR
1996 04 03.95		S	1.9	YG	0.7	E		1	21	7	2.5	49	SKI
1996 04 03.97		M	2.2	Y	5.0	B		7	16	7			BOU
1996 04 03.98		S	2.0	SC	0.6	E		1	40	7			OKS
1996 04 03.99		B	3.0	AA	5.0	B		10	30		3	60	PUJ01
1996 04 03.99		M	2.1	Y	0.7	E		1		7	18	48	BOU
1996 04 04.00		G	2.3	SP	0.8	E		1	18	7	7	44	SHA02
1996 04 04.00		S	2.6	AA	5.0	B		10	20	7	5.3	42	MOE
1996 04 04.00		S	2.9	SC	0.7	E		1	15		8		ROG02
1996 04 04.01		M	2.2:	YG	5.0	B		10	15	6	3.0	48	GRA04
1996 04 04.01		S	2.8	SP	0.7	E		1					DOH
1996 04 04.02		B	2.1	AA	0.0	E		1	&10	7/	&4		GRE
1996 04 04.02		M	2.2	AA	5.0	R		1					GRE
1996 04 04.02		S	1.1	SP	5.0	B		10	20	4	6		KIE01
1996 04 04.04		S	2.5	AA	0.0	E		1			4		DIM
1996 04 04.43		M	2.7	Y	0.0	E		1	40	6	3		YUS
1996 04 04.44		M	2.5	AA	3.5	B		10	15	6	4.5	45	NAK01
1996 04 04.44		S	1.8	SC	3.0	B		10	20	S6	5	50	SHI
1996 04 04.45		M	2.5	AA	0.0	E		1	35	6	2	45	KOB01
1996 04 04.48		M	2.2	SC	0.0	E		1	30	6			KAT01
1996 04 04.79		S	2.2	AA	8.0	B		20	27	7	2	45	BAR
1996 04 04.81		S	2.3	SC	11	B		20	&20	S5		35	BAR06
1996 04 04.82		S	2.3	SC	11	B		20		5			LOZ01
1996 04 04.82		S	2.7	AA	5.0	B		10	18	7	5.4	40	MOE
1996 04 04.83		B	2.7	AA	5.0	B		7	20	5	>1.0	35	TRI01
1996 04 04.83		B	2.8	AA	5.0	B		12		4	2.0	45	SAN06
1996 04 04.83		S	2.2	SC	11	B		20		5			ISH03
1996 04 04.83		S	2.6	AA	0.0	E		1					DIE02
1996 04 04.84		M	2.3	YG	5.0	B		10	12		4.9	47	GRA04
1996 04 04.84		S	2.1	YG	0.7	E		1	20	6	4.6		GRA04

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 04.85		G	2.7	SP	0.8	E		1	15	8	4.4	46	SHA02
1996 04 04.85		S	2.2	SC	0.6	E		1	30	7	6	50	OKS
1996 04 04.86		M	2.7	SP	5.0	B		7	10	7	4.9	46	SHA02
1996 04 04.87		M	2.4	Y	5.0	B		7	14	7/	7	46	BOU
1996 04 05.01		N	7.4	HI	20.3	T	10	80	10	7			GRA04
1996 04 05.27		M	2.3	SC	0.0	E		1			5		OME
1996 04 05.42		S	2.0	SC	3.0	B		10	14	S6	25	42	SHI
1996 04 05.43		B	2.3	YF	2.4	B		10	15	6			YOS04
1996 04 05.44		M	2.6	AA	3.5	B		10	15	6/	6.5	44	NAK01
1996 04 05.44	a	C	2.8	GA	8.0	R	6		28		>1.1	47	NAK01
1996 04 05.45		M	2.3	SC	6.0	R		20	20	6	3.0	55	KAT01
1996 04 05.46		M	2.5	AA	0.0	E		1	30	6	2	45	KOB01
1996 04 05.46		S	2.0	S	15.0	R	5	25	9	6	3.5		NAG02
1996 04 05.47		S	2.9	YF	25.4	T	6	60	12	5	0.8	55	YOS04
1996 04 05.80		M	2.9	AA	5.0	B		7	&15	7	10	45	MIK
1996 04 05.80		S	2.5	Y	0.0	E		1	12				BAR05
1996 04 05.80		S	2.8	Y	3.0	B		3					BAR05
1996 04 05.81		B	2.9	AA	5.0	B		7	20	5	>1.0	35	TRI01
1996 04 05.81		S	2.2	Y	0.0	E		1	60	8	12	70	SZE02
1996 04 05.82		B	2.8	Y	6.0	B		20	12	7	6	45	SAR02
1996 04 05.82		B	3.1	AA	5.0	B		10					SAN05
1996 04 05.82		I	2.4	AA	0.8	E		1					KAM01
1996 04 05.82		M	2.4	AA	5.0	B		7	15	6	5	46	CHE03
1996 04 05.82		S	1.9	Y	5.0	B		12	15	D7/	2.3	30	SZA04
1996 04 05.83					6.3	B		9	11	S8/	6	47	KAM01
1996 04 05.83		S	2.7	AA	0.0	E		1					DIE02
1996 04 05.84		B	3.0	S	0.0	E		1	10		11		DAR
1996 04 05.84		S	2.4	AA	0.0	E		1	15	4			MER
1996 04 05.85		G	2.7	SP	0.8	E		1	18	6	3	46	SHA02
1996 04 05.85		M	2.3	YG	0.7	E		1	20	6	6.2	51	GRA04
1996 04 05.86		M	2.6	YG	5.0	B		10	10	7	6.1	49	GRA04
1996 04 05.86		S	3.1	SC	0.7	E		1			5		ROG02
1996 04 05.87	a	B	2.2	AT	3.4	B		9					PER01
1996 04 05.87	a	B	2.5:	AT	3.4	B		9	&16		>4.5	50	VIT01
1996 04 05.87	a	I	2.1	AT	0.0	E		1	&24	8	&5	50	VIT01
1996 04 05.87	a	I	2.1	AT	0.0	E		1	>20	7/	>9	45	PER01
1996 04 05.87	a	M	2.1	AT	3.4	B		9	& 8	7	>4.5	45	PER01
1996 04 05.88		M	2.7	SP	5.0	B		7	9	7	9	46	SHA02
1996 04 05.88		S	2.1	SC	0.6	E		1	40	7	8	55	OKS
1996 04 05.90		B	2.0	AA	0.0	E		1		3	10		PAK
1996 04 05.90		S	0.5	SP	5.0	B		10	15	4	4		KIE01
1996 04 05.95		N	7.5	HI	20.3	T	10	80	7	7			GRA04
1996 04 06.12	a	G	2.0	YF	0.0	E		1	&31	7/	&8.5	56	ADA03
1996 04 06.78		S	2.6	Y	0.0	E		1					BAR05
1996 04 06.79		B	2.6	S	0.0	E		1	20	8			PLS
1996 04 06.79		O	2.4	SP	0.0	E		1	23	6	10	48	ZNO
1996 04 06.80		B	2.4	AA	3.6	B		4	30	3	6	47	VAN06
1996 04 06.80		B	2.5	AA	0.0	E		1	15	6/			CHE03
1996 04 06.80		B	3.0	Y	6.0	B		20	12	D5	8	45	SAR02
1996 04 06.80		M	2.8	TI	5.0	B		7	20	6	4		DVO
1996 04 06.80		S	2.3	Y	0.0	E		1	50	8	11	65	SZE02
1996 04 06.80		S	2.8	Y	3.0	B		3	10				BAR05
1996 04 06.81		B	2.0	Y	0.0	E		1	20	4	70	45	BAK01
1996 04 06.81		B	2.6	Y	0.0	E		1	12	6	12	48	KYS
1996 04 06.81		B	2.8	Y	5.0	B		10		D6	8	45	SAR02
1996 04 06.81		B	3.2	SP	8.0	B		10	30		3		POD
1996 04 06.81		M	2.7	Y	5.0	B		7	12	7	7	48	KYS
1996 04 06.82		B	2.8	Y	0.0	E		1	15	S8	6	45	SAR02
1996 04 06.82		M	3.1	YF	5.0	B		7	&12	7/	11	44	MIK
1996 04 06.82		S	2.2	AA	0.0	E		1	25	7/	9	45	ZAN
1996 04 06.83		S	2.7	AA	0.0	E		1					DIE02
1996 04 06.84		S	2.5	AA	5.0	B		10	17	7	5	45	MOE
1996 04 06.85		M	2.7	Y	0.7	E		1		7/			BOU
1996 04 06.85		S	2.9	AA	0.0	E		1			6		DIM

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 06.86		M	2.6	YG	5.0	B		10	10	7	7.1	47	GRA04
1996 04 06.86		S	2.4	YG	0.7	E		1	15	6	7.1	47	GRA04
1996 04 06.88		B	2.9	AA	3.6	B		4	15	3	2	47	VAN06
1996 04 06.90		B	3.0	AA	5.0	B		7	15	5			TRI01
1996 04 07.10		S	2.9	SC	0.7	E		1					DIL
1996 04 07.11	a	B	2.1	YF	0.0	E		1	&18	7/			ADA03
1996 04 07.43		M	2.4	SC	6.0	R		20	20	6	2.0	50	KAT01
1996 04 07.43		S	2.0	S	15.0	R	5	25	8	6/	4		NAG02
1996 04 07.44		C	3.1	YF	2.5	A	2		35		>6.5	46	NAK01
1996 04 07.44	a	C	3.1	GA	8.0	R	6		27		>1.1	45	NAK01
1996 04 07.46		M	2.5	AA	0.0	E		1	20	6	1	45	KOB01
1996 04 07.78		S	2.9	Y	3.0	B		3	6				BAR05
1996 04 07.79		B	2.4	AA	0.0	E		1	12	6/	7	48	CHE03
1996 04 07.79		M	3.0	TI	5.0	B		7	15	7	3.5		DVO
1996 04 07.79		O	2.6	SP	0.0	E		1	25	6/	9	45	ZNO
1996 04 07.79		S	2.1	AA	5.0	B		7	25	7	3	45	BAR
1996 04 07.80		M	2.5	AA	5.0	B		7	12	5			CHE03
1996 04 07.80		S	2.3	Y	0.0	E		1	48	8	11	65	SZE02
1996 04 07.81		B	2.4	S	0.0	E		1	20	7/			PLS
1996 04 07.81		B	2.7	Y	5.0	B		10	10	D6/	>30	45	SAR02
1996 04 07.81		B	3.4	SP	8.0	B		10	25		5		POD
1996 04 07.81		S	2.2	AA	8.0	B		20	20	8	2	45	BAR
1996 04 07.82		B	2.6	Y	0.0	E		1	15	S7/	50	45	SAR02
1996 04 07.82		S	2.2	AA	0.0	E		1	23	7/	9	45	ZAN
1996 04 07.82	!	V	2.8	YF	1.2	A	3		&20	8/	14	43	MIK
1996 04 07.83		B	3.0	Y	0.0	E		1	11	7	25	48	KYS
1996 04 07.83		M	3.0	Y	5.0	B		7	11	7	8	48	KYS
1996 04 07.83		S	2.4	AA	0.0	E		1	12	4	15		MER
1996 04 07.84		M	3.1	SP	5.0	B		7	7	7	4	45	SHA02
1996 04 07.84		S	2.8	AA	0.0	E		1	25		6		DIM
1996 04 07.85		S	2.7	Y	8.0	B		10	15		5.5	45	HOR
1996 04 07.86		B	3.2	AA	5.0	B		10					SAN05
1996 04 07.86		B	3.5	AT	5.0	B		7		7/	&4		GON04
1996 04 07.86		I	3.3	AT	0.0	E		1		7			GON04
1996 04 07.86		S	2.9	SC	0.7	E		1			6		ROG02
1996 04 07.87	a	B	2.5	AT	3.4	B		9					PER01
1996 04 07.87	a	B	2.6	AT	3.4	B		9	& 8	8	&7	45	VIT01
1996 04 07.87	a	I	1.8	AT	0.0	E		1	&16		&8.5	45	VIT01
1996 04 07.87	a	I	2.5	AT	0.0	E		1		8/	>9	40	PER01
1996 04 07.87	a	M	2.5	AT	3.4	B		9	& 7	7/	>8	40	PER01
1996 04 07.88		B	2.5	AA	0.0	E		1		3	10		PAK
1996 04 07.90		S	2.8	YG	0.7	E		1			2.5	47	HIL02
1996 04 07.91		B	1.8:	S	0.0	E		1	22	6	14		STE12
1996 04 07.91		B	3.2:	SC	5.0	B		7	20	6			BIV
1996 04 08.00		M	2.6	YG	5.0	B		10	8	6	2.0	55	GRA04
1996 04 08.00		S	2.5:	YG	0.7	E		1					GRA04
1996 04 08.07		S	2.4	SC	0.7	E		1					DIL
1996 04 08.27		M	2.3	SC	0.0	E		1			10	45	OME
1996 04 08.46		S	2.4	AA	2.5	B		5	25	6	7	45	KOB01
1996 04 08.50		M	2.5	SC	6.0	R		20	15	6	1.0	50	KAT01
1996 04 08.78		S	2.9	Y	3.0	B		3	8				BAR05
1996 04 08.80		B	2.6	Y	6.0	B		20		D6	7	40	SAR02
1996 04 08.81		B	2.2	Y	0.0	E		1	20	S7	>10	40	SAR02
1996 04 08.81		M	2.3	AA	5.0	B		7	10	5	6	46	CHE03
1996 04 08.83		B	2.2	AA	0.0	E		1	10	6/			CHE03
1996 04 08.83		S	2.4	AA	5.0	B		7	10	S5			MER
1996 04 08.84		S	1.7	Y	17.0	L	7	96	13	S7	7	55	SZA04
1996 04 08.85		B	2.5	AA	3.6	B		4	17	4	3.4	43	VAN06
1996 04 08.85		B	2.8	AA	0.0	E		1	20	8	1.0	30	TRI01
1996 04 08.85		B	3.1	AA	5.0	B		7	15	5	3	30	TRI01
1996 04 08.85		S	2.7	SP	0.7	E		1	7	7	4.7	44	SHA02
1996 04 08.87	a	I	2.0	AT	0.0	E		1		8	&8	40	PER01
1996 04 08.90		B	2.7	S	0.0	E		1	24	8	23	55	MAR02
1996 04 08.90	a	B	2.3	AT	3.4	B		9	& 7	8	>9	40	PER01

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 08.93		B	3.0	S	5.0	B		10	10	7/			SAN04
1996 04 08.95		S	2.5	YG	5.0	B		10	8	6/	1.8	52	GRA04
1996 04 09.04		S	2.4	SC	5.0	B		10	14	7	2.0	49	DAH
1996 04 09.14	a	S	1.9	YF	0.0	E		1	<20	8	20		ADA03
1996 04 09.25		M	2.4	SC	0.0	E		1			90	42	OME
1996 04 09.78		O	2.6	SP	0.0	E		1	13	7	14	50	ZNO
1996 04 09.79		S	2.3	AA	8.0	B		20	16	6/	1.5	45	BAR
1996 04 09.81		B	2.4	S	0.0	E		1	16	8	8	40	PLS
1996 04 09.81		M	3.0	YF	5.0	B		7	& 8	8	&9	43	MIK
1996 04 09.82		S	2.2	AA	0.0	E		1	20	7/	15	45	ZAN
1996 04 09.82		S	3.0	AA	0.0	E		1			6		DIM
1996 04 09.82	!	V	2.8	YF	1.2	A	3		&20	8/	22	42	MIK
1996 04 09.83		M	2.5	AA	5.0	B		7	&10	6	10	45	CHE03
1996 04 09.83		M	2.7	Y	0.7	E		1		7	10	40	BOU
1996 04 09.83		S	2.4	AA	0.0	E		1	12	4			MER
1996 04 09.84		B	2.4	S	0.0	E		1	20	7/	10	45	HOR02
1996 04 09.84		B	2.6	AA	3.6	B		4	15	5	5	41	VAN06
1996 04 09.84		S	2.6:	YG	5.0	B		10	7	6	1		GRA04
1996 04 09.85		B	3.6:	SC	5.0	B		7	12	7/	>1.2	45	BIV
1996 04 09.88		B	3.3	SC	5.0	B		7	7	7	3	47	SHA02
1996 04 09.90		B	2.8	AA	0.0	E		1	20	8	1.0	30	TRI01
1996 04 09.90		B	3.0	AA	5.0	B		7	22	5	6		TRI01
1996 04 10.11	a	S	2.1	YF	0.0	E		1	18	8/	48	48	ADA03
1996 04 10.13	a	B	2.3	YF	5.0	B		7		7/			ADA03
1996 04 10.25		M	2.4	SC	0.0	E		1			65		OME
1996 04 10.48		M	2.5	SC	6.0	R		20	15	6	1.0	50	KAT01
1996 04 10.82		M	2.6:	AA	5.0	B		7	&10	6	10	43	CHE03
1996 04 10.82		S	2.6	Y	0.7	E		1		7	25	44	BOU
1996 04 10.83		B	2.6	S	0.0	E		1	20	7/	5	45	HOR02
1996 04 10.86	a	I	2.4:	AT	0.0	E		1		8	18	45	PER01
1996 04 10.87	a	B	2.8:	AT	3.4	B		9	& 7.5	6/	>9	45	PER01
1996 04 10.90	!	S	2.7	SC	0.6	E		1	15	5			OKS
1996 04 10.91		B	3.2	AA	5.0	B		7	20	5	4		TRI01
1996 04 10.92		B	2.8	S	0.0	E		1	25	7/	26	53	MAR02
1996 04 11.00		M	2.5	YG	5.0	B		10	7	7	7	49	GRA04
1996 04 11.00		S	2.4	YG	0.7	E		1					GRA04
1996 04 11.06		M	2.2	SC	0.7	E		1		7	3.7	43	DAH
1996 04 11.07		S	2.6	SC	5.0	B		10	14	8	5.1	45	DAH
1996 04 11.13	a	S	2.2	YF	0.0	E		1			35		ADA03
1996 04 11.25		M	2.8	SC	0.0	E		1			65		OME
1996 04 11.43		M	2.5	SC	6.0	R		20	10	6	3.0	45	KAT01
1996 04 11.46		S	2.5	AA	5.0	B		7	25	6	6	45	KOB01
1996 04 11.81		M	3.0:	AA	5.0	B		7	&10	6	&7	42	CHE03
1996 04 11.82		S	2.6	Y	0.7	E		1		7	25	47	BOU
1996 04 11.82		S	2.8	AA	0.0	E		1			20		DIM
1996 04 11.84		S	2.7	AA	5.0	B		10	12	7	8	45	MOE
1996 04 11.89		S	2.1	YG	0.7	E		1		8	10	55	HEE
1996 04 11.89		S	2.7	YG	0.7	E		1			16	43	HIL02
1996 04 11.90		B	3.2	AA	5.0	B		7	20	4	3		TRI01
1996 04 11.90		M	2.6	YG	5.0	B		7	6	7/	18	44	GRA04
1996 04 11.90		S	2.4	YG	0.7	E		1		8	18	44	GRA04
1996 04 12.06		B	3.0	AA	0.0	E		1					GRE
1996 04 12.06		B	3.2	AA	5.0	B		12		7/	&5		GRE
1996 04 12.25		M	2.8	SC	0.0	E		1			100	45	OME
1996 04 12.44		S	1.9	S	15.0	R	5	25	5	7/	3		NAG02
1996 04 12.44		S	2.6	SC	3.0	B		10	8	S6	21	37	SHI
1996 04 12.45		I	3.6	HS	0.0	E		1		9			YOS04
1996 04 12.45		M	2.7	SC	6.0	R		20	8	7	2.0	45	KAT01
1996 04 12.47		S	3.9	HS	25.4	T	6	60	7	7	1.5	40	YOS04
1996 04 12.81		B	2.5:	S	0.0	E		1	&20	6	&4		GAR02
1996 04 12.81		S	2.4	AA	8.0	B		20	10	5	1.5	35	BAR
1996 04 12.82		B	3.0	AA	5.0	B		7	15	8	3	35	TRI01
1996 04 12.82		M	3.0	Y	5.0	B		7	8	7	8	48	KYS
1996 04 12.82		M	3.3:	AA	5.0	B		7	&10	6			CHE03

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 12.82		S	2.2	AA	0.0	E		1	18	8	10	45	ZAN
1996 04 12.82		S	2.6	Y	0.7	E		1		7	35	45	BOU
1996 04 12.83		B	2.4	S	0.0	E		1	18	7/	25	43	HOR02
1996 04 12.83		B	3.0	Y	0.0	E		1	10	5	40	48	KYS
1996 04 12.83		S	2.3	AA	0.0	E		1	10	4			MER
1996 04 13.06		B	2.4	AA	0.0	E		1		8	15		GRE
1996 04 13.06		B	2.8	AA	5.0	B		12	& 6	7/	15		GRE
1996 04 13.25		M	2.9	SC	0.0	E		1			80	45	OME
1996 04 13.45		M	2.5	SC	6.0	R		20	8	7	3.0	45	KAT01
1996 04 13.46		S	2.5	AA	5.0	B		7	15	7	6	45	KOB01
1996 04 13.78		S	2.6	Y	3.0	B		3	5				BAR05
1996 04 13.80		S	2.3	Y	0.0	E		1	60	8	9	65	SZE02
1996 04 13.82		B	2.7	AA	0.0	E		1	10	9	2.0	30	TRI01
1996 04 13.82		S	2.2	AA	0.0	E		1	16	8			ZAN
1996 04 13.83		B	2.9	AA	5.0	B		7		8	5	35	TRI01
1996 04 13.83		S	2.9	AA	0.0	E		1					DIE02
1996 04 13.84		M	2.9	AA	5.0	B		10	8	5	17	44	VAN06
1996 04 13.85		M	2.9	AA	0.8	E		1	10	8			SHA02
1996 04 13.85		M	3.1	AA	5.0	B		7	6	7	3.2	41	SHA02
1996 04 13.86	a	I	2.3	AT	0.0	E		1			&4		VIT01
1996 04 13.88		B	2.8	S	0.0	E		1	20	7/	16	55	MAR02
1996 04 13.88		S	2.9	SC	0.7	E		1			3.5		ROG02
1996 04 13.88	a	B	2.0	AT	3.4	B		9	& 6.5	8	&8	50	PER01
1996 04 13.88	a	I	1.6	AT	0.0	E		1		8	>4	55	PER01
1996 04 13.89		M	2.7	YG	5.0	B		10	6	7	22	42	GRA04
1996 04 13.89		S	2.4	YG	0.7	E		1		7/			GRA04
1996 04 13.91		S	2.4	YG	0.7	E		1			20	42	HIL02
1996 04 14.09	a	B	2.5:	YF	5.0	B		7		8	&3		ADA03
1996 04 14.78		S	2.4	Y	3.0	B		3	5				BAR05
1996 04 14.80		B	2.7	Y	5.0	B		10	15	7	>25	40	SAR02
1996 04 14.81		B	2.6	Y	0.0	E		1	15	S7/	70	40	SAR02
1996 04 14.81		S	2.0	AA	8.0	B		20	8	7	3	35	BAR
1996 04 14.81	a	S	2.3	AA	0.0	E		1		8	10		MIL02
1996 04 14.82		M	3.2	AA	5.0	B		10	8	6	12	50	VAN06
1996 04 14.82		S	2.1	AA	0.0	E		1	15	7/	18	45	ZAN
1996 04 14.82		S	3.2	Y	16.2	L	4	21	10	7	2.5	40	SZA02
1996 04 14.82		S	3.5	AA	0.0	E		1			20		DIM
1996 04 14.84		S	2.4	AA	0.8	E		1	11	8	18	40	MOE
1996 04 14.85		B	2.7	AA	5.0	B		7	10	8	2.0	35	TRI01
1996 04 14.85	s	B	3.0	AA	6.3	B		9	7	S7	6	43	KAM01
1996 04 14.86		S	2.8	AA	0.0	E		1					DIE02
1996 04 14.88		M	2.7	YG	5.0	B		10	6	7/	19	42	GRA04
1996 04 14.88		S	2.4	YG	0.7	E		1		8	10	46	GRA04
1996 04 14.89		S	2.3	YG	0.7	E		1		8	7	49	HEE
1996 04 14.90		S	2.4	YG	0.7	E		1					SKI
1996 04 14.90		S	2.6	YG	0.7	E		1			18	43	HIL02
1996 04 15.43		M	2.8	SC	6.0	R		20	8	7			KAT01
1996 04 15.79		O	2.0	SP	0.0	E		1	14	8	15	40	ZNO
1996 04 15.80		B	2.3	Y	0.0	E		1	15	S8/			SAR02
1996 04 15.81		S	1.7	AA	8.0	B		20	7	8	3	40	BAR
1996 04 15.81	!	V	1.9	YF	1.2	A	3		&10	8/	15	40	MIK
1996 04 15.82		B	2.1	S	0.0	E		1	10	8	25	40	HOR02
1996 04 15.82		B	2.4	AA	0.0	E		1	10	9	0.5	30	TRI01
1996 04 15.82		B	2.5	AA	5.0	B		7	11	8	2.0	35	TRI01
1996 04 15.82		M	2.0	Y	0.7	E		1		8	35	43	BOU
1996 04 15.82		S	1.8	AA	0.0	E		1	15	8/	3	45	ZAN
1996 04 15.82		S	2.4	AA	0.0	E		1			8		DIM
1996 04 15.82		S	3.0	AA	0.0	E		1					ROS02
1996 04 15.83		B	2.5	SC	5.0	B		7	5	8	>3	44	BIV
1996 04 15.83		B	2.6	SC	0.0	E		1	5	8			BIV
1996 04 15.83		M	2.5	AA	5.0	B		10	6	7	16	43	VAN06
1996 04 15.83	a	B	2.1	S	0.0	E		1	30	6	19	39	GAR02
1996 04 15.84		S	2.8	AA	0.0	E		1					DIE02
1996 04 15.84	s	I	2.0	AA	0.8	E		1		9			KAM01

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 15.85		B	1.9	AA	0.0	E		1	&10	7	10	42	CHE03
1996 04 15.88		S	1.9	SC	0.7	E		1			3		ROG02
1996 04 15.89		M	2.5:	YG	5.0	B		10	4	7/	4	42	GRA04
1996 04 15.90		S	1.9	YG	0.7	E		1	5	8/	5.5	42	SKI
1996 04 15.90		S	2.1	YG	5.0	B		7		8	13	40	SKI
1996 04 16.02		B	2.9	AA	5.0	B		12	& 6	7/	&1		GRE
1996 04 16.02	a	S	2.3	AA	5.0	B		12	& 6	7/	&1		GRE
1996 04 16.11	a	B	1.5	YF	0.0	E		1		8	17	50	ADA03
1996 04 16.25		M	2.3	SC	0.0	E		1			80	45	OME
1996 04 16.46		S	1.8	AA	5.0	B		7	15	8	6	45	KOB01
1996 04 16.80	a	S	2.1	AA	0.0	E		1		8	10		MIL02
1996 04 16.81		S	2.0	AA	8.0	B		20	6	8	3	37	BAR
1996 04 16.82		B	2.0:	S	0.0	E		1	10	8	5	40	HOR02
1996 04 16.82		M	2.3	S	0.0	E		1			9	40	PRA01
1996 04 16.82		M	2.4	Y	0.7	E		1		7			BOU
1996 04 16.82		S	1.8	AA	0.0	E		1	10	8/	18	40	ZAN
1996 04 16.82		S	2.5	AA	0.0	E		1			7		DIM
1996 04 16.82		S	2.6	AA	0.0	E		1			6		ROS02
1996 04 16.83		B	2.7	SC	5.0	B		7	5	8	>3	43	BIV
1996 04 16.83		M	2.9	AA	5.0	B		10	6	6	9	44	VAN06
1996 04 16.83		S	2.7	AA	0.0	E		1					DIE02
1996 04 16.83	s	I	2.4:	AA	0.8	E		1		8/			KAM01
1996 04 16.84		B	2.0	AA	0.0	E		1	&10	7	10	42	CHE03
1996 04 16.84		B	2.6	AA	0.0	E		1	10	9	10	30	TRI01
1996 04 16.86		S	2.2	AA	5.0	B		10	10	8	10	40	MOE
1996 04 16.87		B	2.7	AA	5.0	B		7	10	8	8	30	TRI01
1996 04 16.87	a	I	1.9	AT	0.0	E		1		8/	>8	40	PER01
1996 04 16.88		S	2.1	YG	0.7	E		1		8	5		SKI
1996 04 16.90					5.0	B		10	4	7/	21	40	GRA04
1996 04 16.90		S	1.9	YG	0.7	E		1		8	6	37	GRA04
1996 04 17.23		B	3.0	SC	0.0	E		1			50	35	OME
1996 04 17.80		O	2.2	SP	0.0	E		1	12	6/	14	43	ZNO
1996 04 17.80	!	V	2.4	YF	1.2	A	3		&10	8/	15	37	MIK
1996 04 17.80	&	S	1.9	Y	0.0	E		1	30	8	9	80	SZE02
1996 04 17.82		B	1.8	S	0.0	E		1	13	8	30	35	HOR02
1996 04 17.82		B	2.1	AA	0.0	E		1	&10	6	8.5	42	CHE03
1996 04 17.83		B	2.0	S	0.0	E		1	13	8/	10	30	PLS
1996 04 17.83		S	3.0	AA	0.0	E		1			13		DIM
1996 04 17.85		B	2.6	AA	0.0	E		1	10	9	19	30	TRI01
1996 04 17.86		B	2.6	SC	0.0	E		1	3	8	>2	40	BIV
1996 04 17.86		B	2.7	S	5.0	B		10	20	8/	6	35	SAN04
1996 04 17.86		M	2.8	AA	5.0	B		7	5	8	9	39	SHA02
1996 04 17.86		S	2.1	AA	0.8	E		1	10	8	21	40	MOE
1996 04 17.87		B	2.5	SC	5.0	B		7	3	8	7	38	BIV
1996 04 17.87		B	2.6	AA	5.0	B		7	10	8	12	30	TRI01
1996 04 17.87		G	2.5	AA	0.7	E		1	5	8	10	39	SHA02
1996 04 17.87	a	B	2.4	AT	3.4	B		9	< 4	8/	12	40	PER01
1996 04 17.87	a	I	2.2	AT	0.0	E		1		8/	20	40	PER01
1996 04 17.88		S	2.3:	SC	8.0	B		20	10	7			OKS
1996 04 17.88		S	2.5	SC	0.7	E		1			13		ROG02
1996 04 18.25		B	3.0	SC	0.0	E		1			50	35	OME
1996 04 18.43		M	2.0	SC	3.0	B		8	5	8	3	40	KAT01
1996 04 18.80		O	2.4	SP	0.0	E		1	10	6/	17	35	ZNO
1996 04 18.81		B	2.7	AA	0.0	E		1	3	7	&8	40	CHE03
1996 04 18.82		B	2.0:	S	0.0	E		1	15	8	7	35	HOR02
1996 04 18.82		S	1.7	AA	0.0	E		1	10	8/	10	40	ZAN
1996 04 18.83		M	2.5	Y	0.7	E		1		7			BOU
1996 04 18.83		S	3.5	AA	0.0	E		1			3		DIM
1996 04 18.85		B	2.5	AA	0.0	E		1	5	9	15	30	TRI01
1996 04 18.86		B	2.6	AA	5.0	B		7	6	8	18	30	TRI01
1996 04 19.03	a	B	2.4	AA	0.0	E		1			&4		GRE
1996 04 19.11	$	B	1.6	YF	0.0	E		1		8	20	50	ADA03
1996 04 19.25		B	3.2	SC	0.0	E		1			50	35	OME
1996 04 19.80	&	S	1.8	Y	0.0	E		1	30	8	7	80	SZE02

Comet C/1996 B2 (Hyakutake) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 04 19.80	&	S	2.5	Y	0.0	E		1	5	7	4.5	50	KES01
1996 04 19.81		B	2.9	AA	0.0	E		1	2	7	2	40	CHE03
1996 04 19.81		S	1.8	AA	8.0	B		20	5	8	2.5	33	BAR
1996 04 19.81	!	B	1.4	Y	0.0	E		1	12	7	65	40	SAR02
1996 04 19.82		S	1.7	AA	0.0	E		1	10	8/	10	40	ZAN
1996 04 19.82	a	B	2.5	AA	6.3	B		9		S8/	&4	46	KAM01
1996 04 19.83		M	2.2	Y	0.7	E		1		7			BOU
1996 04 19.83		M	3.8	AA	5.0	B		10	5	7	20	37	VAN06
1996 04 19.89		M	3.6	AA	5.0	B		7	5	8	1.8	38	SHA02
1996 04 20.23		B	3.3	SC	5.0	B		10			3		OME
1996 04 20.44		S	2.9	S	15.0	R	5	25	3	7/	2		NAG02
1996 04 20.45		S	2.0	AA	5.0	B		7	15	8	6	35	KOB01
1996 04 20.81	!	B	1.5	Y	0.0	E		1	10	6	70	40	SAR02
1996 04 20.82		M	2.5	Y	0.7	E		1		8			BOU
1996 04 20.82		S	1.9	AA	4.2	B		7	4	9	8	38	ZAN
1996 04 20.89	!	S	2.5	SC	8.0	B		20	3	8	3.5	35	OKS
1996 04 21.10	$	S	2.5:	YF	5.0	B		7		8/			ADA03
1996 04 21.43		S	3.1	S	15.0	R	5	25	3	8	1.5		NAG02
1996 04 21.45		S	2.2	AA	5.0	B		7	10	8	5	33	KOB01
1996 04 21.81	&	S	2.8	Y	16.2	L	4	21	8	9	1.5	30	SZA02
1996 04 21.82		S	1.9	AA	4.2	B		7	4	9	8	35	ZAN
1996 04 21.83	a	B	2.6	AH	6.3	B		9		S8/	&3	30	KAM01
1996 04 21.85	!	S	2.2	SC	8.0	B		20		9	5	35	OKS
1996 04 22.23	$	B	2.6:	SC	0.0	E		1			1		OME
1996 04 22.45		S	2.3	AA	5.0	B		7	7	8	4	30	KOB01
1996 04 22.80		M	3.2	AA	5.0	B		7	1.0	7	2	40	CHE03
1996 04 22.86	$	B	3.0	AT	3.4	B		9	< 2	9	>7	40	PER01
1996 04 22.86	$	I	2.8	AT	0.0	E		1		8/	>9	40	PER01
1996 04 23.22	$	B	2.8:	SC	10.2	R	5	23					OME
1996 04 23.45		S	2.5	AA	5.0	B		7	5	8	4	25	KOB01
1996 04 23.50		B	1.9	S	5.0	B		10	30	8	4	330	GAL
1996 04 23.81		M	3.0	AA	5.0	B		7	1.5	7	1	40	CHE03
1996 04 24.22	$	B	2.8:	SC	10.2	R	5	23					OME
1996 04 24.45		S	2.5	AA	5.0	B		7	5	8	3	20	KOB01
1996 04 24.50		B	1.8	S	5.0	B		10	20	8	2.0	330	GAL
1996 04 24.81		S	1.8	AA	4.2	B		7	3	9	6	35	ZAN
1996 04 24.83	$	B	2.3:	AH	6.3	B		9		S9	>1.5		KAM01
1996 04 24.84		M	2.9	Y	5.0	B		7		8			BOU
1996 04 24.85		S	2.0	SC	5.0	B		10		9			ROG02
1996 04 24.86	$	B	3.9	AT	3.4	B		9		8	>4.5		PER01
1996 04 25.03	s	B	2.8:	AA	5.0	B		12	& 2.5	8/	&5		GRE
1996 04 25.84		M	3.0	Y	5.0	B		7		8			BOU
1996 04 25.85		S	2.9:	AA	5.0	B		10	3	8	3	20	MOE
1996 04 26.85		S	2.1	AE	10	B		14	3	8	0.33	40	SHA02
1996 04 26.86	!	S	1.8	SC	8.0	B		20	3	9	1.5	25	OKS
1996 04 27.85	!	S	1.5	SC	8.0	B		20	5	9	0.5	15	OKS

Comet C/1996 E1 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 22.98		C	16.3	MK	27.9	T	10		0.6				GAR02
1996 04 12.89		S	13.7	AC	25.4	J	6	203	0.5	3			BOU
1996 04 15.87		S	13.7	AC	25.4	J	6	143	0.5	2			BOU
1996 04 20.84		S	13.4	HS	44.5	L	5	146	1.5	3			SAR02

Comet 6P/d'Arrest

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 05 28.08		C	17.3	LB	20.3	T	10		0.2				GAR02
1995 06 26.06		C	14.8	LB	20.3	T	10		0.8		1.4m	220	GAR02
1995 06 27.09		C	14.2	LB	20.3	T	10		0.8		0.8m	220	GAR02
1995 07 22.00		C	12.7	LB	20.3	T	10		0.9		1.4m	241	GAR02
1995 08 26.09		S	8.1	S	7.0	B		10	25	6			MAR02
1995 08 26.09		S	8.5	S	7.0	B		10		5			SAN04

Comet 6P/d'Arrest [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 08 27.08		S	7.9	S	7.0	B		10	22	5			MAR02
1995 08 27.08		S	8.0	S	7.0	B		10		4			SAN04
1995 10 20.96		C	11.7	HS	35.6	T	6		4.3				KLO
1996 01 12.44		C	15.2	GA	60.0	Y	6		1.4				NAK01
1996 02 19.45		C	16.9	GA	60.0	Y	6		0.85				NAK01

Comet 9P/Tempel 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1994 04 02.00		B	12.3	NP	30.0	L	5	165		2			MAR02
1994 04 08.96		B	11.5	NP	25.0	L	5	95		7			MAR02

Comet 19P/Borrelly

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 04 30.94		C	14.8:	MK	20.3	T	10		0.9		1.3m	116	GAR02
1995 05 02.98	a	C	14.0	MK	20.3	T	10		1.1		1.4m	68	GAR02

Comet 22P/Kopff

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 31.18		M[	12.2	HS	35	L	5	158	! 1				HOR02
1996 02 09.83		C	13.9	HS	20.6	T	6		0.3				YUS
1996 02 18.19	!	V	13.0	YF	20.0	T	2		& 3	3			MIK
1996 02 25.11	&	S	13.3	HS	44.5	L	5	230	1.2	3			SAR02
1996 02 25.19		S	13.8:	NP	44.5	L	5	100	0.8	2			MAR02
1996 02 26.13		M	12.0	HS	35	L	5	237	0.9	2			HOR02
1996 03 03.18		M	12.0:	HS	35	L	5	158	1	2/			HOR02
1996 03 18.83	a	C	12.8:	GA	60.0	Y	6		1.7				NAK01
1996 03 20.10		M	11.5:	HS	35	L	5	158	1	3			HOR02
1996 03 24.16		S	11.7	NP	44.5	L	5	100	1.5	2			MAR02
1996 03 27.18		S	10.5:	HS	10	B		14	6	3			SHA02
1996 03 28.09		M	11.3	TI	35	L	5	227	1.1	3			HOR02
1996 03 28.14		O[	11.1	TI	11	L	7	32	! 2				KYS
1996 03 29.18		S[	8.6	S	10	B		14					SHA02
1996 03 30.17		S	9.9	HS	10	B		14	5	1			SHA02
1996 04 14.10		S	10.2	AC	25.4	J	6	58	& 3	1/			BOU
1996 04 14.11		S[	9.0	S	10	B		14					SHA02
1996 04 15.10		S	10.1	AC	25.4	J	6	58	3.0	1/			BOU
1996 04 16.10		S	9.8	AC	25.4	J	6	58	3.4	2			BOU
1996 04 18.07		M	9.8	TI	35	L	5	92	2.8	2			HOR02
1996 04 18.18		B	10.1	NP	17.8	L	6	42	2.0	3			TRI01
1996 04 19.10		S	9.9	AC	25.4	J	6	47	3.2	2			BOU
1996 04 20.06		S	10.3	HD	44.5	L	5	82	5	2			SAR02
1996 04 20.09		S	9.8	AC	25.4	J	6	47	3.5	1/			BOU
1996 04 21.08		S	9.8	HD	6.0	B		20	6.5	2			SAR02
1996 04 22.13		S[	9.2	S	10	B		14					SHA02
1996 04 24.11		S	9.1	S	10	B		14	2.9	2			SHA02
1996 04 25.11		S	9.2	AC	10	B		14	4.4	2			SHA02
1996 04 28.09		S	9.0	VS	8.0	B		20	3	5			OKS

Comet 29P/Schwassmann-Wachmann 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 04 30.89		C	14.9	MK	20.3	T	10		0.8				GAR02
1995 10 28.18		S	13.1	AC	25.4	J	6	115	1.0	0/			BOU
1996 01 19.06		C	14.0	MK	20.3	T	7		1.5	2			KLO
1996 01 20.08		S[	13.0	HS	20.3	T	10	80	! 0.5				FAU
1996 01 27.04		C	16.0:	MK	20.3	T	7		0.5	2			KLO
1996 01 31.13		M[	13.2	HS	35	L	5	158	! 1				HOR02
1996 02 09.63		C	13.2	HS	20.6	T	6		1.3				YUS
1996 02 15.66		C	13.3	GA	60.0	Y	6		2.3				NAK01
1996 02 15.66		c	16.5	GA	60.0	Y	6						NAK01
1996 02 18.06		S	13.7	NP	44.5	L	5	100	0.5	6			SAN04

Comet 29P/Schwassmann-Wachmann 1 [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 18.06		S	13.8	NP	44.5	L	5	100	0.3	8			MAR02
1996 02 21.06		S	11.6	HS	20.3	T	10	123	0.3	8			GRA04
1996 02 21.67		C	11.5	GA	60.0	Y	6		3.2	8			NAK01
1996 02 21.67		C	11.8	GA	60.0	Y	6		+ 0.5				NAK01
1996 02 21.88		S	11.9	VB	30	R	18	95	0.4	6			SHA02
1996 02 22.02		M	11.4	HS	20.3	T	10	123	0.5	6/			GRA04
1996 02 22.64		C	11.5	GA	60.0	Y	6		3.0	8			NAK01
1996 02 22.64		C	11.7	GA	60.0	Y	6		+ 0.6				NAK01
1996 02 23.06		S	11.4	HS	20.3	T	10	123	0.6	5			GRA04
1996 02 23.94		S	11.5	NP	21.0	L	6	60	0.8	7			SAN04
1996 02 23.95		B	11.6	NP	21.0	L	6	60	1.1	7			MAR02
1996 02 23.96		S	11.7	HS	44.5	L	5	82	0.8	8			SAR02
1996 02 23.96		S	11.7	HS	44.5	L	5	82	0.8	9			BAK01
1996 02 24.59		S	10.9	HS	25	L	4	84	1.5	7			KON03
1996 02 24.86	!	V	11.6	GA	36.0	T	7		& 2	8			MIK
1996 02 24.88		B	11.3	HS	20.3	T	10	93	0.3	5			HAS02
1996 02 24.92		M	10.8	TI	35	L	5	158	1.6	2/			HOR02
1996 02 24.97		S	11.3	HS	25.4	L	6	115	0.8	7/			SAR02
1996 02 25.05		V	11.9	MK	20.3	T	5		1.3	5			KLO
1996 02 25.07		B	11.4	NP	44.5	L	5	100	0.7	6			MAR02
1996 02 25.07		B	12.2	HS	20.3	T	10	160	0.4	8			FAU
1996 02 25.08		S	11.5	NP	44.5	L	5	100	0.8	7			SAN04
1996 02 25.14		M	10.8	TI	35	L	5	92	1.5	3			HOR02
1996 02 25.66		C	11.2	HS	41.0	L	6		3.5				KOB01
1996 02 25.85		S	11.4	HS	44.0	L	5	156	0.5	4			HAS02
1996 02 25.86		M	10.9	TI	35	L	5	92	1.5	3			HOR02
1996 02 25.87		M	10.9	TI	35	L	5	92	1.7	5			PLS
1996 02 26.00		S	11.5	HS	25.4	L	6	115	1.2	6/			SAR02
1996 02 26.31		V	11.3	GA	8.0	R	2						FER
1996 02 26.91		S	11.2	TI	20	L	4	57	2				KYS
1996 02 27.84	!	V	11.6	GA	36.0	T	7		& 2	8			MIK
1996 02 28.10		S	11.5	AC	13.0	L	6	36	1.5	4/			MEY
1996 02 28.71		C	11.5	GA	60.0	Y	6		3.3				NAK01
1996 02 28.71		C	11.7	GA	60.0	Y	6		+ 1.1				NAK01
1996 03 07.84		S	11.4	AC	25.4	J	6	72	1.6	3			BOU
1996 03 08.85		M	11.1	TI	35	L	5	104	2	2/			HOR02
1996 03 08.85		S	11.4	AC	25.4	J	6	72	2.0	2			BOU
1996 03 09.81		M	11.2	TI	35	L	5	104	2.2	1/			HOR02
1996 03 09.85		S	11.5	AC	25.4	J	6	72	1.9	1/			BOU
1996 03 09.86		S	12.0	HS	44.0	L	5	156	1.4	2			HAS02
1996 03 09.92		O	11.2	TI	11	L	7	32	2	2			KYS
1996 03 09.92		S	11.4	TI	20	L	4	57	2	2			KYS
1996 03 10.86		S	11.6	AC	25.4	J	6	88	2.2	1			BOU
1996 03 10.87		S	12.3	HS	30	R	18	95	0.4	3			SHA02
1996 03 10.92	!	V	11.6	GA	36.0	T	7		2.5	5	& 1	m 350	MIK
1996 03 10.93		S	11.8	AC	35	L	5	97	4	3			VAN04
1996 03 10.93		S	12.6	NP	21.0	L	6	100	1.5	1			MAR02
1996 03 11.84		S	11.3	AC	25.4	J	6	72	2.1	s5			BOU
1996 03 12.21		S	11.7	AC	20.0	T	10	185	1.0	7			SPR
1996 03 12.97		S	12.4	VB	30	R	18	230	0.4	4			SHA02
1996 03 13.63		C	11.3	GA	60.0	Y	6		3.1				NAK01
1996 03 13.63		C	12.6	GA	60.0	Y	6		+ 0.45				NAK01
1996 03 16.03		S	12.0:	AC	25.3	L	6	57	& 1	2			PER01
1996 03 17.02		B	11.5	NP	33.0	L	5	46	1.5	5			MAR02
1996 03 17.96		B	11.4	NP	44.0	L	5	100	1.3	5/			MAR02
1996 03 18.00		S	11.9	AC	25.3	L	6	57	& 1	4			PER01
1996 03 18.70	a	C	11.3	GA	60.0	Y	6		3.9				NAK01
1996 03 19.03		B	11.5	HS	25.6	L		84	3.0	6			BIV
1996 03 19.08		B	11.5	NP	44.0	L	5	100	2.0	5			MAR02
1996 03 19.87		M	11.1	TI	35	L	5	66	2.4	3			HOR02
1996 03 20.84		M	11.1	TI	35	L	5	92	2.7	2/			HOR02
1996 03 21.07		C	11.9	GA	27.9	T	10		3.0		?0.05	352	GAR02
1996 03 21.07		c	15.9	GA	27.9	T	10						GAR02
1996 03 21.88		S	11.7:	HS	25.6	L		169	2.5	5			BIV

Comet 29P/Schwassmann-Wachmann 1 [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 23.08		C	11.1	GA	27.9	T	10		5.2		?0.09	8	GAR02
1996 03 23.08		c	16.1	GA	27.9	T	10						GAR02
1996 03 24.05		B	11.1	NP	44.5	L	5	100	2.5	6			MAR02
1996 03 24.06		S	11.8	NP	44.5	L	5	100	1.5	4			SAN04
1996 03 27.88		M	10.9	TI	35	L	5	92	2	3			HOR02
1996 04 04.00		S	12.1	VB	30	R	18	95	1.3	2			SHA02
1996 04 05.50		C	11.6	GA	60.0	Y	6		3.7	1			NAK01
1996 04 05.50		c	16.0	GA	60.0	Y	6						NAK01
1996 04 06.83		S	11.6	TI	20	L	4	57	2.5	3			KYS
1996 04 07.53		C	11.4	GA	60.0	Y	6		4.6	1			NAK01
1996 04 07.53		c	16.1	GA	60.0	Y	6						NAK01
1996 04 07.84		S	11.8	TI	20	L	4	57	2	3			KYS
1996 04 07.87		S	11.8	TI	35	L	5	104	1	1/			HOR02
1996 04 08.93		S	10.7	NP	21.0	L	6	100	2.5	2			MAR02
1996 04 09.87		M	12.0	TI	35	L	5	104	1.8	1/			HOR02
1996 04 10.59		C	11.6	GA	60.0	Y	6		4.1	0/			NAK01
1996 04 10.59		c	16.3	GA	60.0	Y	6						NAK01
1996 04 10.87		S	12.1	AC	25.4	J	6	88	2.0	1/			BOU
1996 04 10.94		S	10.9	NP	21.0	L	6	60	2.5	3			MAR02
1996 04 12.86		S	12.4	HS	35	L	5	104	2.3	1/			HOR02
1996 04 12.90		S	12.1	AC	25.4	J	6	88	2.0	0/			BOU
1996 04 13.56		C	11.5	GA	60.0	Y	6		4.5	0/			NAK01
1996 04 13.56		c	16.3	GA	60.0	Y	6						NAK01
1996 04 13.92		S[	12.0	VB	30	R	18	230					SHA02
1996 04 13.93		S	10.9:	NP	21.0	L	6	60	3.7	2			MAR02
1996 04 15.86		S	12.4	HS	35	L	5	104	2	1/			HOR02
1996 04 15.87		S	12.0	AC	25.4	J	6	88	2.3	1			BOU
1996 04 16.01		C	11.8	GA	27.9	T	10		4.8		0.08	11	GAR02
1996 04 16.01		c	17.2	GA	27.9	T	10						GAR02
1996 04 17.85		M	12.4	HS	35	L	5	92	2.1	1/			HOR02
1996 04 18.91		S	12.2	AC	25.4	J	6	58	2.0	1/			BOU
1996 04 20.00		S	12.0	HS	44.5	L	5	146	2	1/			SAR02
1996 04 20.20		c	18.9	FA	91.4	L	5						SCO01
1996 04 20.21		C	15.3	FA	91.4	L	5						SCO01
1996 04 20.86		S	12.2	HS	44.5	L	5	146	2	1			SAR02
1996 04 21.65		C	11.3	HS	28.0	T	6		5.5				KIN
1996 04 22.56		C	11.8	GA	60.0	Y	6		4.2	0/			NAK01
1996 04 22.56		c	16.4	GA	60.0	Y	6						NAK01

Comet 30P/Reinmuth 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 28.44		C	19.6	FA	91.4	L	5		0.23		68.4s	278	SCO01
1996 03 28.44		c	21.9	FA	91.4	L	5						SCO01
1996 04 19.41		c	21.0	FA	91.4	L	5		0.27		220.8s	282	SCO01
1996 04 19.42		C	18.2	FA	91.4	L	5						SCO01

Comet 31P/Schwassmann-Wachmann 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 06 26.94		1 C[	16.0	LB	20.3	T	10						GAR02

Comet 32P/Comas Solá

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 12.43		C	15.2	GA	60.0	Y	6		0.95		1.9m	70	NAK01
1996 02 19.44		C	15.0	GA	60.0	Y	6		0.85		1.5m	75	NAK01

Comet 41P/Tuttle-Giacobini-Kresák

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 08 25.88		S	8.4	S	44.5	L	5	100	3	2			MAR02
1995 08 26.86		S	8.9	S	44.5	L	5	100	4	2			SAN04
1995 08 26.86		S	9.3	S	44.5	L	5	100	3	3			MAR02
1995 10 24.75	a	C	14.1	LB	20.3	T	10		1.0				GAR02

Comet 45P/Honda-Mrkos-Pajdušáková

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 12 26.95	a	S	7.0	HR	8.0	B		20	3.0	7			BOR
1996 01 25.25		K	6.7	S	5.0	B		7	10	1			TRI
1996 01 26.45	a	S	7.4	HR	8.0	B		20	8	1			BOR
1996 01 26.87		S	8.3	S	15.0	R	5	25	8	3			NAG02
1996 01 27.85		S	7.9	S	15.0	R	5	25	11	2/			NAG02
1996 01 29.23		S	8.0:	AA	15.6	L	5	24	&10	2			BOU
1996 01 30.19		M	8.4	TI	35	L	5	66	6	2/			HOR02
1996 01 30.20		M	9.0	TI	35	L	5	66	3.5	1/			PLS
1996 01 30.21		S	8.0	AC	13.0	L	6	36	7	2			MEY
1996 01 30.22		S	7.4	AA	15.6	L	5	24	12	2			BOU
1996 01 30.23		S	7.5	AA	8.0	B		15	12	1/			BOU
1996 01 30.86		S	7.7	SC	7.0	B		10	13.0	4/			KOB01
1996 01 31.19		M	8.6	TI	35	L	5	66	4.5	1/			HOR02
1996 01 31.20		S	8.3	AA	13.0	L	6	36	5.5	1/			MEY
1996 01 31.22		S	7.6	AA	8.0	B		15	11	1			BOU
1996 02 01.18		O[	9.3	TI	11	L	7	54	! 4				KYS
1996 02 01.18		S	7.1	AA	5.0	B		7	15	2			VEL03
1996 02 01.19		M	7.9	TI	35	L	5	66	6	1/			HOR02
1996 02 01.20		M	7.8	TI	35	L	5	66	6	1/			PLS
1996 02 01.21		S	7.3	AA	8.0	B		15	12	2/			BOU
1996 02 01.22		S	7.4	S	6.3	B		9	11	1			KAM01
1996 02 01.43	a	S	7.1	AC	5.0	B		10	12	0			BOR
1996 02 01.43	a	S	7.7	AC	8.0	B		20	9.5	1			BOR
1996 02 02.20		O[	9.3	TI	20	L	4	34	! 4				KYS
1996 02 02.20	!	V	8.4	YF	20.0	T	2		&15	3	&0.3	290	MIK
1996 02 02.23		S	7.7	AA	8.0	B		15	12	1			BOU
1996 02 09.79		C	9.8	HS	20.6	T	6		10.3		7.3m	310	YUS
1996 02 12.15		K	7.6	S	5.0	B		7	5	2	0.25	50	TRI
1996 02 17.22		S	10.5	HS	10	B		14	10	1			SHA02
1996 02 17.63		B	8.7	S	5.0	B		7	25	1			BIV
1996 02 18.02		K	7.9	S	7.0	B		10	14	0			MAR02
1996 02 18.13		S	8.1	AA	8.0	B		11	8	2			DES01
1996 02 18.28		S	8.6	AA	8.0	B		20	15	0			LOU
1996 02 19.14		S	8.2	AA	8.0	B		11	8	2			DES01
1996 02 19.27		S	8.3	AA	8.0	B		20	15	0			LOU
1996 02 20.13		S	8.5	AA	8.0	B		11	7	2			DES01
1996 02 21.13		S	8.5	AA	8.0	B		11	8	1/			DES01
1996 02 21.24		S	10.0	HS	10	B		14	7.9	1			SHA02
1996 02 22.03		S	8.5	AA	15.0	R		75	3	5			DIE02
1996 02 24.04		S	9.7	HD	6.0	B		20	10	0/			SAR02
1996 02 24.04		S	10.8	TB	44.5	L	5	82	9	3			BAK01
1996 02 24.04		S	10.9	TB	44.5	L	5	82	8	2			SAR02
1996 02 24.17		S	10.0:	S	20.3	T	10	50	& 2.5	0			KAM01
1996 02 24.94		M	12.0	TI	35	L	5	116	2.3	1/			HOR02
1996 02 24.95		S	9.3:	AC	13.0	L	6	36	9	1			MEY
1996 02 25.09		S	9.9	HD	6.0	B		20	8	0/			SAR02
1996 02 25.39		S	8.5:	AC	8.0	B		20	& 9	0/			BOR
1996 02 26.06		S	10.8	TB	25.4	L	6	57	6	1			SAR02
1996 02 26.12		S	9.0	AC	13.0	L	6	36	8.5	1			MEY
1996 02 26.15		S	12.0	HS	35	L	5	116	2	1			HOR02
1996 02 28.12		S	9.3	AC	13.0	L	6	36	& 7	0			MEY
1996 02 28.77		C	10.9	GA	8.0	R	6		7.8		>0.67	289	NAK01
1996 02 29.20		S	10.9	HS	10	B		14	13	1			SHA02
1996 03 09.83		S	10.7	AC	15.2	L	5	42	3.5	1			MOE
1996 03 13.20		S	9.5	AA	8.0	R	3	20	& 5	3/			GRE
1996 03 14.19		S	9.2	S	25.4	L	4	44	& 3	7			GRE
1996 03 19.86		S	12.5	HS	35	L	5	158	1.1	1			HOR02
1996 04 10.61		C	16.5	GA	60.0	Y	6		0.95	0	> 2.8m	287	NAK01
1996 04 19.20		c	22.9	FA	91.4	L	5		0.68		6.0m	288	SC001
1996 04 19.28		C	20.7	FA	91.4	L	5				53.4s	100	SC001
1996 04 20.19		c	23.2	FA	91.4	L	5						SC001
1996 04 20.21		C	20.4	FA	91.4	L	5						SC001

Comet 58P/Jackson-Neujmin

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 06 26.00		1	C[15.5	LB	20.3	T	10						GAR02
1995 06 27.04		1	C[16.5	LB	20.3	T	10						GAR02
1995 08 26.02			S 14.3	NP	44.5	L	5	400	0.5	2			MAR02
1995 08 26.02			S 14.6	NP	44.5	L	5	400	0.3	2			SAN04
1995 11 22.84			S 9.9	AC	13.0	L	6	36	4.5	1			MEY
1995 12 14.75			S 11.5:	GA	25.4	J	6	88	& 2	1			BOU
1995 12 15.75			S 11.8:	GA	25.4	J	6	115	& 2	1			BOU
1996 02 09.76			O[12.3	HS	35	L	5	158	! 1				HOR02

Comet 65P/Gunn

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 31.18			M[12.1	HS	35	L	5	158	! 1				HOR02
1996 02 09.83			C 15.6	HS	20.6	T	6		0.5				YUS
1996 02 25.10		&	S 13.6	HS	44.5	L	5	230	1	1			SAR02
1996 02 25.17			S 13.9	NP	44.5	L	5	100	0.5	3			SAN04
1996 02 25.17			S 14.0	NP	44.5	L	5	100	0.7	2			MAR02
1996 03 13.81	a		C 14.5:	GA	60.0	Y	6		1.1		3.5m	286	NAK01
1996 03 23.17			C 13.7	GA	27.9	T	10		1.0		2.7m	290	GAR02
1996 03 23.17			c 17.0	GA	27.9	T	10						GAR02
1996 03 28.07			M 13.4	HS	35	L	5	227	0.7	2			HOR02
1996 04 11.71	a		C 13.7	GA	60.0	Y	6		1.4				NAK01
1996 04 14.09			S 13.1	AC	25.4	J	6	143	0.7	4			BOU
1996 04 15.11			S 13.1	AC	25.4	J	6	143	0.6	3			BOU
1996 04 16.09			S 13.2	AC	25.4	J	6	115	0.6	3			BOU
1996 04 18.06			S 13.0	HS	35	L	5	227	0.7	2			HOR02
1996 04 19.09			S 13.2	AC	25.4	J	6	143	0.5	3			BOU
1996 04 19.45			c 18.3	FA	91.4	L	5		1.20		7.3m	288	SCO01
1996 04 20.05			S 13.5	HS	44.5	L	5	146	1.5	3/			SAR02
1996 04 20.09			S 13.1	AC	25.4	J	6	143	0.5	3			BOU
1996 04 21.01			S 13.5	HS	44.5	L	5	146	1.2	2/			SAR02
1996 04 21.77	a		C 13.3	GA	60.0	Y	6		1.5		5.4m	285	NAK01

Comet 67P/Churyumov-Gerasimenko

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 12 14.74			S 12.8	GA	25.4	J	6	115	0.8	2			BOU
1995 12 15.74			S 12.7	GA	25.4	J	6	115	0.8	3			BOU
1996 01 08.77			S 12.0	GA	25.4	J	6	72	1.6	3			BOU
1996 01 11.74			S 10.9	HS	13.0	L	6	36	& 2.5	3			MEY
1996 01 12.72			S 10.7	HS	13.0	L	6	36	3	2/			MEY
1996 01 13.74			M 12.2	HS	35	L	5	92	1.3	4			HOR02
1996 01 13.74			S 10.9	AC	13.0	L	6	36	2.5	3			MEY
1996 01 13.75			M 11.8	HS	35	L	5	92	2.3	3			PLS
1996 01 13.77			S 11.0	VF	11	L	7	56	2.5	3			BAR06
1996 01 14.72			M 11.8	HS	35	L	5	92	2.3	3/			PLS
1996 01 14.74			S 11.0	AC	13.0	L	6	36	2.5	3			MEY
1996 01 14.75			S 11.3:	VF	11	L	7	56	1.7	2			BAR06
1996 01 14.80			M 12.3	HS	35	L	5	158	1.0	3			HOR02
1996 01 15.76			M 12.0	HS	35	L	5	92	1.1	3/			PLS
1996 01 15.76			M 12.1	HS	35	L	5	92	1.2	3			HOR02
1996 01 15.79			S 11.1	AC	13.0	L	6	36	2.5	3			MEY
1996 01 15.82			S 12.0	HS	20.3	T	10	80	0.8	6			FAU
1996 01 16.75			S 11.0	AC	13.0	L	6	36	3	3			MEY
1996 01 17.73			S 11.0	AC	13.0	L	6	36	2.5	3			MEY
1996 01 21.11			C 12.2	FA	91.4	L	5						SCO01
1996 01 21.74			M 11.9	HS	35	L	5	92	1.5	3/			PLS
1996 01 21.77			M 12.0	HS	35	L	5	237	1.7	3/			HOR02
1996 01 22.75			M 11.5	HS	35	L	5	92	1.6	4			PLS
1996 01 22.75			M 11.6	HS	35	L	5	92	1.7	3/			HOR02
1996 01 22.75			S 11.5	TI	20	L	4	57	1.7	4			KYS
1996 01 22.76			S 11.5	GA	25.4	J	6	58	2.8	2			BOU
1996 01 24.84			M 12.5	HS	30	L	5	200	1.5				POP
1996 02 06.75			S 11.0	AC	13.0	L	6	36	2	3			MEY

Comet 67P/Churyumov-Gerasimenko [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 07.79		S	11.1	AC	13.0	L	6	36	2.5	3			MEY
1996 02 08.83		S	11.5	TI	35	L	5	158	1.5	2			HOR02
1996 02 09.72		M	11.6	TI	10	B		25	1.3	4			ZNO
1996 02 09.77		M	11.4	TI	35	L	5	92	1.7	4			HOR02
1996 02 09.78		M	11.3	TI	35	L	5	92	2	3			PLS
1996 02 09.79		S	11.3	AC	13.0	L	6	36	2.5	2/			MEY
1996 02 09.80	!	V	11.4	YF	20.0	T	2		& 3	6			MIK
1996 02 11.15		S	10.8	AC	20.0	T	10	125	2	3/			SPR
1996 02 11.85		S	11.1	NP	21.0	L	6	60	2.0	5			MAR02
1996 02 11.85		S	11.3	NP	21.0	L	6	60	2.0	3			SAN04
1996 02 13.16		S	11.2	AC	20.0	T	10	185	2	3			SPR
1996 02 14.14		S	10.8	AC	20.0	T	10	102	2.5	3/			SPR
1996 02 15.14		S	10.9	AC	20.0	T	10	102	2	2/			SPR
1996 02 16.15		S	10.7	AC	20.0	T	10	102	2	3/			SPR
1996 02 16.45		C	11.9	HS	20.6	T	6		3.1				YUS
1996 02 16.81		S	11.2	AC	25.4	J	6	58	3.0	4/			BOU
1996 02 16.88		S	11.4	NP	21.0	L	6	60	1.0	3			SAN04
1996 02 17.88		M	11.2	NP	44.5	L	5	100	1.0	5			MAR02
1996 02 17.88		S	10.9	NP	44.5	L	5	100	1.0	3			SAN04
1996 02 19.02		S	11.1	AC	40.6	L	5	70	1.3	5			BOR
1996 02 19.48		C	12.1	GA	60.0	Y	6		2.3		2.5m	80	NAK01
1996 02 19.83		S	11.3	HS	20.3	T	10	93	0.9	4			HAS02
1996 02 20.76		M	11.6	TI	35	L	5	92	1.6	3			PLS
1996 02 20.77		M	11.3	TI	35	L	5	92	1.6	4			HOR02
1996 02 20.84		S	12.1	HS	30	R	18	95	1.0	3			SHA02
1996 02 21.80		S	12.5	AC	30	R	18	95	1.5	2			SHA02
1996 02 23.80		S	11.3	HS	44.0	L	5	156	0.5	4			HAS02
1996 02 25.16		S	11.3	AC	20.0	T	10	185	1.5	2/			SPR
1996 03 08.79		M	11.2	TI	35	L	5	158	1.5	3			HOR02
1996 03 08.80		M	11.1	TI	35	L	5	158	1.3	3			PLS
1996 03 08.82		S	12.0	AC	25.4	J	6	88	1.6	1/			BOU
1996 03 08.83		M	11.3	HS	10	B		25	1.2	4			ZNO
1996 03 09.76		M	11.6:	HS	10	B		25	1.2	3/			ZNO
1996 03 09.79		M	11.3	TI	35	L	5	104	1.6	3			HOR02
1996 03 09.82		S	12.1	AC	25.4	J	6	88	1.8	1			BOU
1996 03 09.83		S	12.0	HS	44.0	L	5	156	0.4	4			HAS02
1996 03 10.83		S	12.1	AC	25.4	J	6	72	1.8	1/			BOU
1996 03 10.84		S	11.1	HS	30	R	18	95	1.5	2			SHA02
1996 03 10.86		S	11.6	NP	21.0	L	6	100	2.0	0/			MAR02
1996 03 11.04		S	11.4	AC	40.6	L	5	90	1.4	5/			BOR
1996 03 12.06		S	11.5	AC	40.6	L	5	90	1.7	5			BOR
1996 03 13.16		S	11.8	AC	20.0	T	10	102	1.0	5			SPR
1996 03 17.92		B	10.9	NP	44.0	L	5	100	1.5	4			MAR02
1996 03 19.79		M	11.9	HS	10	B		25	1	3/			ZNO
1996 03 19.80		M	11.6:	HS	35	L	5	158	0.9	2/			HOR02
1996 03 20.81		M	12.4:	HS	35	L	5	158	1	2			HOR02
1996 03 22.87		C	12.9	MK	27.9	T	10		1.0		1.4m	115	GAR02
1996 03 22.87		c	16.0	MK	27.9	T	10						GAR02
1996 04 07.82		M	13.3	HS	35	L	5	158	0.8	2			HOR02
1996 04 09.84		M	12.4	HS	35	L	5	227	0.7	2			HOR02
1996 04 12.84		S	13.2	AC	25.4	J	6	115	1.4	0			BOU
1996 04 15.82		S	13.3	HS	35	L	5	158	0.7	2			HOR02
1996 04 15.84		S	12.9	AC	25.4	J	6	88	1.5	0/			BOU
1996 04 18.85		S	13.0	AC	25.4	J	6	115	1.1	0/			BOU
1996 04 19.84		S	13.2	HS	44.5	L	5	146	1	3			SAR02
1996 04 19.85		S	13.0	AC	25.4	J	6	88	1.3	0/			BOU

Comet 71P/Clark

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 05 06.10		C	12.7	LB	20.3	T	10		0.8		2.1m	250	GAR02
1995 05 28.11	a	C	12.1	LB	20.3	T	10		1.3		2.6m	274	GAR02
1995 06 26.08	a	C	11.6	LB	20.3	T	10		1.8		2.8m	268	GAR02
1995 08 23.95		S	12.9	NP	44.5	L	5	100		1			MAR02

Comet 73P/Schwassmann-Wachmann 3

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 10 08.02		S	7.2	SC	8.0	B		20	2	5	0.1	111	KR002
1995 10 09.02		S	6.9	SC	33.3	L	4	58	2	6	0.1	128	KR002
1995 10 12.01		S	6.7	SC	33.3	L	4	58	1	9	0.1	92	KR002
1995 10 13.01		S	6.6	SC	33.3	L	4	58	1.1	7	0.1	89	KR002
1995 10 15.02		S	6.1	SC	8.0	B		20	2	6	0.2	97	KR002
1995 10 16.02		S	6.0	SC	8.0	B		20	1.1	6	0.2	98	KR002
1995 10 17.01		S	6.0	SC	8.0	B		20	1.1	5	0.2		KR002
1995 10 19.01		S	6.9	SC	8.0	B		20	2	5	0.1		KR002
1995 10 23.01		S	7.9	SC	8.0	B		20	1.0	4	0.1	100	KR002
1995 10 25.02		S	7.5	SC	8.0	B		20	2	5	0.3	65	KR002
1995 10 26.02		S	7.7	SC	8.0	B		20	2	5			KR002
1995 11 18.74		B	9.2	S	20.3	T	10	50	1.9	5	0.12		FAU
1995 11 23.83		S	7.2	SC	5.0	B		7	3.5	7	0.36	95	DAH
1995 11 24.71		S	7.5:	S	13.0	L	6	36	5	3			MEY
1996 01 11.73		S	8.8	AC	13.0	L	6	36	& 3.5	0			MEY
1996 01 13.72		O[	11.0	TI	35	L	5	66	! 1.8				HOR02
1996 01 13.73		O[	10.8	TI	35	L	5	158	! 1.7				PLS
1996 01 16.73		S	9.9	AC	13.0	L	6	36	4	0			MEY
1996 01 22.72		S	10.7	TI	20	L	4	57	1.5	3			KYS
1996 02 19.42	a	C	14.3:	GA	60.0	Y	6		1.2		> 4.3m	235	NAK01
1996 02 19.43	a	C	14.1:	GA	8.0	R	6		2.2		0.51	233	NAK01

Comet 95P/Chiron = (2060) Chiron

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 05 03.03	a	c	15.6	MK	20.3	T	10						GAR02
1995 05 06.00		c	15.8	MK	20.3	T	10						GAR02
1996 02 17.35		V	15.79	L	100	D	3		< 0.03				FER
1996 03 28.04		I	15.1	HS	35	L	5	227		9			HOR02
1996 04 16.08		c	15.1	GA	27.9	T	10			9			GAR02
1996 04 19.98		I	15.2	HS	44.5	L	5	230	0.0	9			SAR02
1996 04 20.92		I	15.1	HS	44.5	L	5	230	0.0	9			SAR02

Comet 116P/Wild 4

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 14.89		M	13.3	HS	35	L	5	237	0.5	2/			HOR02
1996 01 16.83		M	13.2	HS	30	L	5	200	1				POP
1996 01 19.00		C	13.4	MK	20.3	T	7		1	6	0.02	280	KLO
1996 01 21.73		M	13.6	HS	35	L	5	92	1.0	3			HOR02
1996 01 21.76		M	13.1	HS	35	L	5	237	1.4	2/			PLS
1996 01 22.77		M	13.1	HS	35	L	5	158	1.2	3			PLS
1996 01 22.78		M	13.0	HS	35	L	5	158	0.7	3			HOR02
1996 01 22.86		S	12.7	TI	20	L	4	57	1	3			KYS
1996 01 24.85		M	13.0	HS	30	L	5	200	1				POP
1996 01 27.00		C	13.9	MK	20.3	T	7		0.6	6			KLO
1996 01 31.14		M[	12.0	HS	35	L	5	158	! 1.5				HOR02
1996 02 08.84		S	12.6	HS	35	L	5	158	1	2			HOR02
1996 02 09.80		M	12.2	HS	35	L	5	158	0.7	2/			PLS
1996 02 09.80		M	12.5	HS	35	L	5	158	1	2/			HOR02
1996 02 10.76		C	12.6	HS	41.0	L	6		1.6				KOB01
1996 02 15.57		C	12.9	GA	60.0	Y	6		1.8				NAK01
1996 02 16.84		S	13.2	AC	25.4	J	6	115	0.7	3			BOU
1996 02 18.00		S	12.4	NP	44.5	L	5	100	1.0	3			SAN04
1996 02 18.00		S	12.8	NP	44.5	L	5	100	0.8	5			MAR02
1996 02 20.78		M	12.4	HS	35	L	5	158	1.1	3			PLS
1996 02 20.78		M	12.4	HS	35	L	5	158	1.3	3			HOR02
1996 02 22.78		M	12.2:	HS	35	L	5	158	1.3	2/			HOR02
1996 02 23.78		M	12.7:	HS	35	L	5	158	1	2/			HOR02
1996 02 23.84		S	13.3	HS	44.0	L	5	156	0.4	4			HAS02
1996 02 23.94		S	12.9	HS	44.5	L	5	146	0.5	6			SAR02
1996 02 23.94		S	12.9	HS	44.5	L	5	146	0.7	6			BAK01
1996 02 23.98		S	12.8	NP	21.0	L	6	60	2.5	2			SAN04
1996 02 23.99		S	12.6	NP	21.0	L	6	60	1.7	3			MAR02

Comet 116P/Wild 4 [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 24.78		M	12.2	HS	35	L	5	158	1	2/			HOR02
1996 02 24.81	!	V	13.3	GA	36.0	T	7		& 1	7	& 2 m	110	MIK
1996 02 25.10		S	12.7	NP	44.5	L	5	167	0.5	3			MAR02
1996 02 25.90		M	12.2	HS	35	L	5	238	1	2/			PLS
1996 02 25.90		M	12.4	HS	35	L	5	237	1	2/			HOR02
1996 03 07.83		S	13.1	AC	25.4	J	6	143	0.6	4			BOU
1996 03 08.83		M	12.5	HS	35	L	5	158	1.1	3			HOR02
1996 03 08.84		S	13.2	AC	25.4	J	6	143	0.5	4/			BOU
1996 03 08.87		M	12.1	HS	35	L	5	158	1.1	3/			PLS
1996 03 09.80		M	12.2	HS	35	L	5	104	1.2	3/			HOR02
1996 03 09.84		S	13.1	HS	44.0	L	5	156	0.2	4			HAS02
1996 03 09.84		S	13.2	AC	25.4	J	6	143	0.5	5			BOU
1996 03 09.85		M	12.3	HS	15	R	13	50	0.9	4			ZNO
1996 03 09.90		O	12.2	TI	20	L	4	57	0.8				KYS
1996 03 10.84		S	13.2	AC	25.4	J	6	143	0.6	4/			BOU
1996 03 10.90		S	12.9	NP	21.0	L	6	100	0.8	0			MAR02
1996 03 10.92		S	12.2	AC	35	L	5	97	2.5	6			VAN04
1996 03 11.83		S	13.1	AC	25.4	J	6	88	0.7	4			BOU
1996 03 12.94		S[	11.7	HS	30	R	18	230					SHA02
1996 03 15.86		S	13.1	AC	25.4	J	6	115	0.6	4			BOU
1996 03 16.94		S	12.8	NP	33.0	L	5	125	0.5	1			MAR02
1996 03 17.94		S	13.1	NP	44.0	L	5	100	0.8	3			MAR02
1996 03 19.81		M	12.4	HS	35	L	5	158	1	3			HOR02
1996 03 19.81		S	12.1	HS	15	B		25	1	4/			ZNO
1996 03 20.14		C	13.6	FA	91.4	L	5						SCO01
1996 03 20.15		c	17.3	FA	91.4	L	5		0.93		175.8s	100	SCO01
1996 03 20.82		M	12.3	HS	35	L	5	158	0.8	3			HOR02
1996 03 22.51		C	12.8	GA	60.0	Y	6		1.25		2.3m	102	NAK01
1996 03 22.91		C	13.2	GA	27.9	T	10		1.1		3.5m	105	GAR02
1996 03 22.91		c	17.6	GA	27.9	T	10						GAR02
1996 03 24.04		S	12.4	NP	44.5	L	5	100	2	2			SAN04
1996 03 24.04		S	12.9	NP	44.5	L	5	100	0.7	3			MAR02
1996 04 04.02		S	12.8	NP	44.5	L	5	100	0.7	4			MAR02
1996 04 04.03		S	12.0	NP	44.5	L	5	100	1.0	3			SAN04
1996 04 04.84		S	12.8	VB	30	R	18	230	0.9	2			SHA02
1996 04 06.83		M	11.9	HS	10	B		25	1.1	4/			ZNO
1996 04 07.49		C	12.7	GA	60.0	Y	6		1.6		3.8m	100	NAK01
1996 04 07.85		M	12.3	HS	35	L	5	227	1	3			HOR02
1996 04 07.85		M	12.4	HS	35	L	5	227	1.2	2			PLS
1996 04 08.92		S	12.6	NP	21.0	L	6	100	0.6	4			MAR02
1996 04 09.77		M	11.9	HS	10	B		25	1.4	4			ZNO
1996 04 09.88		S	11.8	HS	35	L	5	104	1	2/			HOR02
1996 04 10.85		M	12.2	HS	35	L	5	104	0.9	3/			HOR02
1996 04 10.88		S	13.3	AC	25.4	J	6	115	0.5	4			BOU
1996 04 10.96		S	12.5	NP	21.0	L	6	100	1.5	2			MAR02
1996 04 12.84		M	11.8	HS	35	L	5	104	1.1	3			HOR02
1996 04 12.86		S	13.4	AC	25.4	J	6	143	0.5	2/			BOU
1996 04 13.82		S	13.3	AC	33.4	L	5	61	1	2			SZE02
1996 04 13.90		S	12.8	VB	30	R	18	230	0.9	3			SHA02
1996 04 13.91		S	12.7:	NP	21.0	L	6	100	1.0	3			MAR02
1996 04 15.82		S	12.3	HS	10	B		25	1.2	4			ZNO
1996 04 15.85		M	11.8	HS	35	L	5	92	1.1	4			HOR02
1996 04 15.85		S	13.4	AC	25.4	J	6	143	0.5	3			BOU
1996 04 16.82		M	11.8	HS	35	L	5	92	1	4			HOR02
1996 04 17.84		M	11.5	HS	35	L	5	104	1.6	3/			HOR02
1996 04 17.84		M	11.9	HS	35	L	5	104	1.4	2			PLS
1996 04 18.82		S	11.9	HS	10	B		25	1.3	3/			ZNO
1996 04 18.84		M	11.8	TI	35	L	5	104	1.4	3/			HOR02
1996 04 19.83		S	13.1	AC	33.4	L	5	61	3.5	2			SZE02
1996 04 19.86		S	13.1	AC	25.4	J	6	115	0.6	4			BOU
1996 04 19.89		S	12.4	HS	44.5	L	5	146	2	4/			SAR02
1996 04 20.16		c	17.7	FA	91.4	L	5						SCO01
1996 04 20.85		S	13.4	AC	25.4	J	6	143	0.5	2/			BOU
1996 04 21.54		C	12.7	HS	28.0	T	6		1.0		1.5m	95	KIN
1996 04 22.47		C	12.6	GA	60.0	Y	6		1.8		3.7m	101	NAK01

Comet 117P/Helin-Roman-Alu 1

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 05 06.02		1	C[16.4	MK	20.3	T	10						GAR02
1996 03 28.45			C 21.2	FA	91.4	L	5						SC001
1996 04 16.13			C 17.6	GA	27.9	T	10		0.4		?0.01	272	GAR02
1996 04 19.44			c 21.1	FA	91.4	L	5		0.18		1.6m	286	SC001
1996 04 19.47			C 18.2	FA	91.4	L	5						SC001

Comet 121P/Shoemaker-Holt 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 23.79			S[13.5	HS	44.0	L	5	156					HAS02

Comet 122P/de Vico

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 09 26.13		M	5.7	AA	13.0	L	6	36	3	D7			MEY
1995 09 29.16		S	6.0	SC	2.5	B		12	5	7	1.5	285	VIN02
1995 09 29.17		S	5.8	AA	5.0	B		7	5	4			BEA
1995 09 29.18		P	6.2	S	5	A					0.83	280	VIN02
1995 10 01.13	!	S	5.4	AA	8.0	B		15	4.5	7	1.8	282	HAV
1995 10 01.15	!	S	5.2	AA	0.0	E		1					HAV
1995 10 03.16		S	5.8	S	5.0	B		10					PAC02
1995 10 03.40		B	5.6	HR	5.0	B		10					BOR
1995 10 03.40	a	S	5.6	HR	5.0	B		10	4.5	7/			BOR
1995 10 04.14		M	5.1	AA	13.0	L	6	36	& 3.5	D8	0.1		MEY
1995 10 04.19		B	4.8	AA	7.0	B		10	18	7	5.5	315	RIP
1995 10 05.14		M	5.3	AA	13.0	L	6	36	4	D8	0.6		MEY
1995 10 07.13		M	5.3	AA	13.0	L	6	36	3	D7/	0.1		MEY
1995 10 07.14	!	S	5.3	AA	8.0	B		15	5	7	2.0	302	HAV
1995 10 07.16	!	S	5.0	AA	0.0	E		1					HAV
1995 10 10.39	a	B	5.6	HR	5.0	B		10					BOR
1995 10 10.39	a	S	5.5	HR	5.0	B		10	5	7			BOR
1995 10 11.11		B	5.2:	S	11	R	7	40					OLE
1995 10 13.39	a	B	5.7	HR	5.0	B		10					BOR
1995 10 13.39	a	S	5.5	HR	5.0	B		10	6	7/			BOR
1995 10 17.40					40.6	L	5	57	4.3	7	0.4	345	BOR
1995 10 17.40	a	B	5.8	HR	5.0	B		10					BOR
1995 10 17.40	a	S	5.7	HR	5.0	B		10	6	7			BOR
1995 10 19.41					40.6	L	5	57	3.0	6/	0.4	340	BOR
1995 10 19.41	a	B	6.1	HR	5.0	B		10					BOR
1995 10 19.41	a	S	5.8	HR	5.0	B		10	6.5	7			BOR
1995 10 20.76		M	5.8	AA	8.0	B		15	4.0	7	1.8	344	BOU
1995 10 21.22		S	6.3	AA	5.0	B		7					TRI01
1995 10 21.76		S	6.0	AA	8.0	B		15	3.5	6			BOU
1995 10 22.11		B	6.5	S	5.0	B		10		6			OLE
1995 10 22.16		M	6.4	AA	13.0	L	6	36	4	D7	0.5		MEY
1995 10 22.16	!	S	6.0	AA	8.0	B		15	5	5/	1.1	315	HAV
1995 10 22.17		M	6.1	AA	8.0	B		15	3.5	6			BOU
1995 10 23.18		S	6.2	S	20.3	T	10	80	5.4	7			FAU
1995 10 23.22		S	6.2	AA	5.0	B		7					TRI01
1995 10 23.42	a	B	5.8	HR	5.0	B		10					BOR
1995 10 23.42	a	S	5.7	HR	5.0	B		10	6	7			BOR
1995 10 23.76		S	6.2	AA	8.0	B		15		4/			BOU
1995 10 24.12		B	6.5	S	5.0	B		10		7			OLE
1995 10 24.15		M	6.1	AA	13.0	L	6	36	4.5	D7	0.8		MEY
1995 10 24.18		M	6.1	AA	8.0	B		15	3.6	5	1.3	340	BOU
1995 10 24.41	a	B	6.4	HR	5.0	B		10					BOR
1995 10 24.41	a	S	6.2	HR	5.0	B		10	8	6/			BOR
1995 10 24.73		M	6.2	AA	13.0	L	6	36	3.5	D7	0.2		MEY
1995 10 24.75		M	6.2	AA	8.0	B		15	4.0	5	2.2	340	BOU
1995 10 25.15		M	6.2	AA	13.0	L	6	36	5	D7	0.4		MEY
1995 10 25.75		M	6.3	AA	8.0	B		15	4.0	5/	1.8	346	BOU
1995 10 28.19		M	6.5	AA	8.0	B		15	4.2	5			BOU
1995 10 29.19		S	6.7	AA	8.0	B		15	4.2	4/			BOU
1995 10 29.41	a	B	7.1	HR	5.0	B		10					BOR

Comet 122P/de Vico [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 10 29.41	a	S	7.0	HR	5.0	B		10	6	6			BOR
1995 10 29.75		S	6.8	AA	8.0	B		15	4.5	4/			BOU
1995 10 30.75		M	7.0	AA	8.0	B		15	3.5	4/			BOU
1995 11 01.75		S	7.3	AA	8.0	B		15	4.0	4			BOU
1995 11 02.19		M	7.2	AA	8.0	B		15	3.9	4			BOU
1995 11 03.19		S	7.8:	S	6.0	R	7	20	4	5			THO03
1995 11 04.75		S	7.1	AA	15.0	L		25	3.2	3			MER
1995 11 05.20		M	7.4	AA	15.6	L	5	24	3.8	5			BOU
1995 11 08.73		S	7.5:	AA	13.0	L	6	36	4.5	2/			MEY
1995 11 12.97	a	S	7.6	AC	8.0	B		20	7	5			BOR
1995 11 12.97	a	S	7.8	AC	40.6	L	5	70	3.0	4			BOR
1995 11 13.75		S	8.3	AC	15.6	L	5	29	4.2	2/			BOU
1995 11 15.79		S	9.0	AA	20	R	14	40	3.3	3			SHA02
1995 11 17.77		S	9.6	S	30	R	18	95	2.0	3			SHA02
1995 11 17.78		S	9.4	AA	20	R	14	40	2.4	3			SHA02
1995 11 18.70		S	8.4	AA	13.0	L	6	36	4.5	2/			MEY
1995 11 18.74		S	9.1	AA	10	B		14	4.7	3			SHA02
1995 11 18.75		S	9.1	AA	20	R	14	40	4.2	2			SHA02
1995 11 18.76		S	9.6	AA	30	R	18	95	3.4	2			SHA02
1995 11 20.74		S	9.0	AC	25.4	J	6	47	3.8	3			BOU
1995 11 21.72		S	8.5	AA	13.0	L	6	36	4	3			MEY
1995 11 22.71		S	8.6	AA	13.0	L	6	36	4	2			MEY
1995 11 22.97	a	S	9.1	AC	40.6	L	5	70	3.8	2			BOR
1995 11 24.72		S	8.7	AA	13.0	L	6	36	4	2			MEY
1995 11 25.75		S	9.3	AC	25.4	J	6	58		1/			BOU
1995 11 26.72		S	9.5	AC	25.4	J	6	58	3.0	2			BOU
1995 12 14.72		S	11.3	AC	25.4	J	6	72	3.0	1			BOU
1995 12 15.72		S	11.3	AC	25.4	J	6	72	2.5	0/			BOU
1995 12 15.73		O[	12.0	AC	20.3	T	10	80	! 1.0				GRA04
1995 12 29.24		S	12.2	AC	25.4	J	6	88	1.5	0/			BOU
1996 01 21.53		C	17.2	FA	91.4	L	5						SC001
1996 01 21.53		c	19.8	FA	91.4	L	5						SC001
1996 01 31.13		M[	11.7	HS	35	L	5	158	! 1.2				HOR02
1996 02 25.51					91.4	L	5				2.5m	0	SC001
1996 04 18.48		C	21.1	FA	91.4	L	5						SC001
1996 04 18.49		c	23.2	FA	91.4	L	5						SC001
1996 04 20.46		C	20.9	FA	91.4	L	5						SC001
1996 04 20.47		c	23.3	FA	91.4	L	5						SC001

Comet 123P/West-Hartley

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 23.85		S	13.8	HS	44.0	L	5	222	0.2	4			HAS02
1996 02 23.92		S	14.9	HS	44.5	L	5	230	0.8	4/			BAK01
1996 02 23.92		S	15.1	HS	44.5	L	5	230	0.6	3			SAR02
1996 04 12.92		S	13.5	AC	25.4	J	6	143	0.5	3			BOU
1996 04 15.88		S	13.4	AC	25.4	J	6	115	0.7	2			BOU
1996 04 19.88		S	14.5	HS	44.5	L	5	230	0.9	4			SAR02
1996 04 20.92		S	13.6	AC	25.4	J	6	115	0.6	2/			BOU

Comet 125P/Spacewatch

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 17.4		V[	21.4	L	100	D	3						FER
1996 04 15.89		S[	13.0	AC	25.4	J	6	143	! 1.0				BOU

Comet P/1996 A1 (Jedicke)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 01 21.29		c	19.3	FA	91.4	L	5						SC001
1996 01 21.32		C	15.8	FA	91.4	L	5						SC001
1996 01 24.70		C	16.2	GA	60.0	Y	6		0.5		2.3m	289	NAK01
1996 02 09.67		C	15.5	HS	20.6	T	6		0.3				YUS
1996 02 15.59		C	16.0	GA	60.0	Y	6		0.55		1.5m	288	NAK01

Comet P/1996 A1 (Jedicke) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 22.58		C	15.8	GA	60.0	Y	6		0.8		2.9m	294	NAK01
1996 02 24.92	!	V	16.3	GA	36.0	T	7		0.5	5	& 2 m	305	MIK
1996 03 19.11		c	19.9	FA	91.4	L	5		0.35		291 s	292	SC001
1996 03 19.15		C	17.1	FA	91.4	L	5						SC001
1996 04 19.17		c	20.1	FA	91.4	L	5		0.53		3.0m	290	SC001
1996 04 19.19		C	17.2	FA	91.4	L	5						SC001

Comet P/1996 F1 (Spacewatch)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 03 21.35		c	19.6	FA	91.4	L	5		0.25		39.6s	264	SC001
1996 03 21.37		C	17.6	FA	91.4	L	5						SC001
1996 03 22.24		C	17.4	FA	91.4	L	5						SC001
1996 03 22.26		c	19.4	FA	91.4	L	5		0.30		29.4s	263	SC001

Φ Φ Φ

Format of Tabulated Data: Examples for e-mail Contributors

Many contributors are confused because the format used to tabulate the photometric data in the printed pages of the *ICQ* is *different* from the format that we ask observers to use in communicating the data. This format for the new-designation scheme that was begun in January 1995 was outlined in detail on pages 10-11 of the January 1995 issue of the *ICQ*, and these instructions can be e-mailed as a help file to interested readers by contacting the *ICQ* Editor at the e-mail address on page 44 of this issue.

For purposes of illustration, below are given (first) a set of observations as can be found on the printed pages of this current issue of the *ICQ* (pulled out selectively from various pages), followed by the proper format that contributors would use to send the same observations in 'machine-readable" form (that is, via e-mail or floppy disk):

AS PUBLISHED IN THE ICQ:

Comet C/1996 B2 (Hyakutake)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1996 02 25.49		c	16.0	FA	91.4	L	5		14.1		46.9m	282	SC001
1996 03 04.40	a	S	5.6	HR	5.0	B		10	10	6			BOR
1996 03 06.16	!	V	5.6	YF	20.0	T	2		&20	7			MIK
1996 03 07.12	&	S	5.0	HI	5.0	B		10	12	5			GRA04
1996 03 23.96		B	0.6	Y	0.0	E		1	90	S7/	30	225	SAR02
1996 03 24.04		S	0.5	Y	0.0	E		1	100	s4	25		LAN02
1996 03 24.08		S	0.2:	YG	0.7	E		1	120	6	>15		SKI
1996 03 26.99		I	0.1	SC	0.0	E		1	90	5	110	179	BAR06
1996 03 27.04		S	-0.2	AA	0.8	E		1	55	7	72	149	MOE
1996 03 27.14		N	8.4	S	20.3	T	10	123					GRA04

Comet 31P/Schwassmann-Wachmann 2

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1995 06 26.94		1 C	[16.0	LB	20.3	T	10						GAR02

SAME DATA AS ARCHIVED IN COMPUTER (FORM TO BE USED BY CONTRIBUTORS):

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123456789 123456789 123456789 123456789 123456789 123456789 123456789 123456789
IIIYYYYMnL YYYY MM DD.DD eM/mm.m:r AAA.ATF/xxxx /dd.ddnDC /t.ttmANG ICQ XX*OBSxx

   1996B2  1996 02 25.49  c 16.0 FA 91.4L 5      14.1      46.9m282 ICQ 98 SC001
   1996B2  1996 03 04.40 aS  5.6 HR  5.0B    10  10    6             ICQ 98 BOR
   1996B2  1996 03 06.16 !V  5.6 YF 20.0T 2     &20    7             ICQ 98 MIK
   1996B2  1996 03 07.12 &S  5.0 HI  5.0B    10  12    5             ICQ 98 GRA04
   1996B2  1996 03 23.96  B  0.6 Y   0.0E     1  90   S7/ 30    225 ICQ 98 SAR02
   1996B2  1996 03 24.04  S  0.5 Y   0.0E     1 100   s4  25        ICQ 98 LAN02
   1996B2  1996 03 24.08  S  0.2:YG  0.7E     1 120    6 >15        ICQ 98 SKI
   1996B2  1996 03 26.99  I  0.1 SC  0.0E     1  90    5 110    179 ICQ 98 BAR06
   1996B2  1996 03 27.04  S -0.2 AA  0.8E     1  55    7  72    149 ICQ 98 MOE
   1996B2  1996 03 27.14  N  8.4 S  20.3T10 123                     ICQ 98 GRA04
 31        1995 06 26.94 1C[16.0 LB 20.3T10                        ICQ 98 GAR02
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