INTERNATIONAL COMET QUARTERLY

Whole Number 123 JULY 2002 Vol. 24, No. 3

— Table of Contents —

SMITHSONIAN ASTROPHYSICAL OBSERVATORY
60 Garden Street · Cambridge, MA 02138 · U.S.A.

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

The regular (invoiced) subscription rate is US$31.00 per year for surface-mail delivery (price includes the annual *Comet Handbook*; the price without the *Handbook* is US$23.00 per year). Subscribers who do not wish to be billed may subscribe at the special rate of US$23.00 per year for surface-mail delivery (rate is $15.00 without *Handbook*). Add $15.00/year to each of these rates for airmail delivery outside of the United States or for first-class delivery within the U.S. [The last set of digits (after the hyphen) on the top line of the mailing address label gives the Whole Number that signifies the last *ICQ* issue which will be sent under the current subscription status. An asterisk after these numbers indicates credit for the next annual Comet Handbook. The first five digits represent the subscriber's account number.] Make checks or money orders payable in U.S. funds (and drawn on a U.S. bank) to *International Comet Quarterly* and send to Mail Stop 18; Smithsonian Astrophysical Observatory; 60 Garden St.; Cambridge, MA 02138, U.S.A.

Credit cards may be used for payment of subscriptions, though a minimum of US$20.00 can be accepted for each charge. Credit-card orders may be placed by e-mail (to iausubs@cfa.harvard.edu), by fax (to USA 617-495-7231), or by telephone (to USA 617-495-7280, generally between 14:00 and 21:00 UT, Monday to Friday). When sending orders by fax or e-mail, please include the following information: (1) your name (as given on the credit card); (2) card type (MasterCard, Visa, or Discover); (3) credit-card number and expiration date; (4) address at which the card is registered; (5) which services you wish to subscribe to; (6) if the payment is for the renewal of a current or expired account, please include your account number.

Group subscription rates available upon request. Back issues are $6.00 each — *except* for "current" *Comet Handbooks*, which are available for $15.00 ($8.00 to subscribers if ordered with their *ICQ* subscription; see above). Up-to-date information concerning comet discoveries, orbital elements, and ephemerides can be obtained by subscribing to the *IAU Circulars* and/or the *Minor Planet Circulars* (via postal mail and also available via computer access); for further information, contact the above e-mail address (or the *ICQ* at the above postal address).

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

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

++++++++++++

This issue is No. 123 of the publication originally called *The Comet* (founded March 1973) and is Vol. 24, No. 3, of the *ICQ*. *[ISSN 0736-6922]*

****

NEW ASSISTANT EDITOR

We welcome Maik Meyer of Germany to the *ICQ* staff, to help with various editorial matters. Meyer is known to many for moderating the comets e-mail discussion group and for his catalogue of comet-discovery circumstances, and his addition to our staff will be a valuable one. — *The Editor*

SOHO Comet Photometry, 1996-1998

This issue contains photometric observations of near-sun comets detected during 1996-1998 with the LASCO coronagraphs aboard the SOHO spacecraft, supplied by Doug Biesecker (formerly of Goddard Spaceflight Center, NASA, and Emergent IT, Inc.). These data supplement the 2002 paper by D. A. Biesecker, P. Lamy, O. C. St. Cyr, A. Llebaria, and R. A Howard, entitled "Sungrazing Comets Discovered with the SOHO/LASCO Coronagraphs 1996-1998" (*Icarus* **157**, 323-348), and are published here by arrangement with the editor of *Icarus*. The astrometry and orbital calculations for each apparent comet were published previously in the *Minor Planet Circulars*.

Additional information (to that published in the *Icarus* paper), regarding the magnitudes of the SOHO comets, was provided over several months by Biesecker — following detailed inquiries by the *ICQ* editor, in order to provide as much data as possible for the *ICQ* archive. Some of that information is described here and is not readily available elsewhere. The magnitudes are not strictly V magnitudes (despite what was stated in the *Icarus* paper), though the reference, derived V magnitudes were taken from the Hipparcos Input Catalogue (C. Turon *et al.* 1992, European Space Agency Special Publication SP-1136). The nominal bandpasses were through the use of "clear" (range 400-850 nm) and "orange" (540-640 nm) filters; the new *ICQ* "magnitude-method" codes 'K' and 'a' are employed here to denote the use of the clear and orange filters, respectively. The filters are described in the *Icarus* paper, where a plot of the spectral-sensitivity curves is presented.

The error, or uncertainty, in each magnitude estimate was derived assuming that the counts/pixel are governed by Poisson statistics. Biesecker adds: "Of course, how the errors are derived is just as important as the errors themselves. Generally the errors are important, especially to prevent people from over-interpreting the observations. The error bars on many of the data are quite large. We don't want somebody to assume that they see variations and believe them to be real when they are equal to, or smaller than, the noise."

Biesecker has found to be the best numbers for the aperture sizes and f-ratios of the C2 and C3 coronagraphs, used to obtain all the images for these photometric measures, to be as follows: C2, aperture 20.16 mm, $f/18.05$; C3, aperture 7.5 mm, $f/9.3$. Biesecker adds that these numbers are not previously published, and they come from private communications with P. Lamy (C2) and R. Howard (C3). Apertures for coronagraphs are, of course, unusual because of the existence of occulting disks (and also extending arms in the field-of-view to hold the occulting disks, causing vignetting). The C2 coronagraph has a circular field-of-view that extends to 6 solar radii and is blocked within 2 $R_\odot$ by the occulting disk. The C3 coronagraph has a field that extends to 30 $R_\odot$ but is blocked by the occulter from the inner 3.7 $R_\odot$.

The photometric aperture size used to determine magnitudes from comets in the C2 images was $0'.99$ ($59''.5$). The pixel size for C2 is $11''.8$, and a 5×5-pixel square was used for the C2 magnitudes. For C3 magnitudes, a 3×3-pixel square was used, with each pixel $56''$ in size, leading to a C3 aperture size of $2'.8$. These values were essentially chosen to match the apparent point-spread function of the telescopes.

The photometry from Biesecker is published below, in the new *ICQ* tabulated format for CCD data (see page 208 of this issue for an explanation of each column). The instrument-type key 'G' in the tabulation indicates 'coronagraph'. The (internal) *ICQ* codes for the cameras are 'SC2' and 'SC3' for the C2 and C3 coronagraphs, respectively.

— *D. W. E. Green*

◇ ◇ ◇

Comet C/1996 B3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 01 27.971		K	8.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.79	BIE01
1996 01 27.985		K	8.40	HI	0.8	G	9	a 19					S 2.8 m				P	0.95	BIE01
1996 01 28.012		K	7.90	HI	0.8	G	9	a 15					S 2.8 m				P	0.67	BIE01
1996 01 28.040		K	8.24	HI	0.8	G	9	a 19					S 2.8 m				P	0.92	BIE01
1996 01 28.054		K	7.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1996 01 28.068		K	7.59	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1996 01 28.083		K	7.82	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1996 01 28.097		K	7.87	HI	0.8	G	9	a 19					S 2.8 m				P	0.71	BIE01
1996 01 28.111		K	8.19	HI	0.8	G	9	a 19					S 2.8 m				P	0.97	BIE01
1996 01 28.139		K	7.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.45	BIE01
1996 01 28.153		K	7.38	HI	0.8	G	9	a 19					S 2.8 m				P	0.51	BIE01
1996 01 28.168		K	7.82	HI	0.8	G	9	a 20					S 2.8 m				P	0.78	BIE01
1996 01 28.182		K	8.05	HI	0.8	G	9	a 19					S 2.8 m				P	1.01	BIE01
1996 01 28.196		K	7.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1996 01 28.210		K	8.11	HI	0.8	G	9	a 19					S 2.8 m				P	1.15	BIE01
1996 01 28.224		K	7.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1996 01 28.252		K	7.68	HI	0.8	G	9	a 19					S 2.8 m				P	0.83	BIE01
1996 01 28.266		K	7.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.86	BIE01

Comet C/1996 B3 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 01 28.280		K	7.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.51	BIE01
1996 01 28.294		K	7.29	HI	0.8	G	9	a 19					S 2.8 m				P	0.66	BIE01
1996 01 28.351		K	6.64	HI	0.8	G	9	a 19					S 2.8 m				P	0.53	BIE01

Comet C/1996 D1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 02 18.150		K	8.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1996 02 18.194		K	8.59	HI	0.8	G	9	a 19					S 2.8 m				P	0.54	BIE01
1996 02 18.239		K	8.39	HI	0.8	G	9	a 20					S 2.8 m				P	0.46	BIE01
1996 02 18.283		K	8.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.59	BIE01
1996 02 18.328		K	8.19	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1996 02 18.372		K	8.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1996 02 18.414		K	8.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.60	BIE01
1996 02 18.459		K	8.02	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1996 02 18.503		K	7.68	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1996 02 18.548		K	7.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1996 02 18.592		K	7.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01

Comet C/1996 E2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 03 10.281		K	8.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.72	BIE01
1996 03 10.369		K	8.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1996 03 10.457		K	7.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01
1996 03 10.849		K	6.16	HI	0.8	G	9	a 19					S 2.8 m				P	0.43	BIE01
1996 03 10.893		a	7.13	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01

Comet C/1996 F2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 03 23.981		K	7.97	HI	0.8	G	9	a 14					S 2.8 m				P	0.35	BIE01
1996 03 24.013		K	8.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1996 03 24.054		K	7.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1996 03 24.097		K	7.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01
1996 03 24.137		K	7.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1996 03 24.177		K	7.35	HI	0.8	G	9	a 10					S 2.8 m				P	0.26	BIE01
1996 03 24.219		K	7.51	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 03 24.262		K	7.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.18	BIE01
1996 03 24.304		K	7.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1996 03 24.347		K	6.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1996 03 24.390		K	6.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1996 03 24.432		K	6.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1996 03 24.475		K	6.29	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 03 24.517		K	6.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1996 03 24.560		K	6.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 03 24.600		K	5.87	HI	0.8	G	9	a 20					S 2.8 m				P	0.08	BIE01
1996 03 24.643		K	5.89	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 03 24.685		K	5.64	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1996 03 24.726		K	5.54	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1996 03 24.930		K	4.48	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1996 03 24.948		K	4.36	HI	0.8	G	9	a 15					S 2.8 m				P	0.05	BIE01
1996 03 25.130		K	3.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1996 03 25.218		K	3.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1996 03 25.305		K	2.89	HI	0.8	G	9	a 19					S 2.8 m				P	0.07	BIE01
1996 03 25.415		a	6.50	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01

Comet C/1996 H1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 04 29.155		K	8.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.63	BIE01
1996 04 29.397		K	7.36	HI	0.8	G	9	a 11					S 2.8 m				P	0.43	BIE01
1996 04 29.641		K	6.82	HI	0.8	G	9	a 20					S 2.8 m				P	0.28	BIE01
1996 04 29.843		K	5.74	HI	0.8	G	9	a 13					S 2.8 m				P	0.15	BIE01
1996 04 29.860		K	5.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01

Comet C/1996 H1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 04 29.904		K	5.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 04 29.966		K	4.88	HI	0.8	G	9	a 20					S 2.8 m				P	0.10	BIE01
1996 04 30.017		K	4.65	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 04 30.067		K	4.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1996 04 30.117		K	4.44	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01

Comet C/1996 L1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 06 10.913		a	6.63	HI	2.0	G	18	a 6					S59.5 s				P	0.26	BIE01

Comet C/1996 M1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 06 17.775		K	9.69	HI	0.8	G	9	a 19					S 2.8 m				P	2.88	BIE01
1996 06 17.868		K	9.26	HI	0.8	G	9	a 19					S 2.8 m				P	1.45	BIE01
1996 06 17.934		a	8.34	HI	0.8	G	9	a 22					S 2.8 m				P	1.59	BIE01
1996 06 17.960		K	9.39	HI	0.8	G	9	a 19					S 2.8 m				P	1.76	BIE01
1996 06 18.029		K	7.94	HI	0.8	G	9	a 19					S 2.8 m				P	0.48	BIE01
1996 06 18.060		K	8.16	HI	0.8	G	9	a 19					S 2.8 m				P	0.61	BIE01
1996 06 18.122		K	8.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.82	BIE01
1996 06 18.158		K	7.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1996 06 18.184		K	7.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01
1996 06 18.250		K	7.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01
1996 06 18.284		K	7.99	HI	0.8	G	9	a 19					S 2.8 m				P	0.67	BIE01
1996 06 18.345		K	7.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1996 06 18.384		K	6.48	HI	0.8	G	9	a 9					S 2.8 m				P	0.25	BIE01
1996 06 18.415		K	6.78	HI	0.8	G	9	a 15					S 2.8 m				P	0.29	BIE01
1996 06 18.446		K	6.76	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1996 06 18.482		K	6.73	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1996 06 18.507		K	6.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 06 18.574		K	6.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.50	BIE01
1996 06 18.600		K	7.19	HI	0.8	G	9	a 5					S 2.8 m				P	1.12	BIE01

Comet C/1996 M2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 06 25.730		K	9.53	HI	0.8	G	9	a 19					S 2.8 m				P	1.41	BIE01
1996 06 25.863		K	9.33	HI	0.8	G	9	a 19					S 2.8 m				P	1.40	BIE01
1996 06 25.935		K	8.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.91	BIE01
1996 06 25.960		K	8.58	HI	0.8	G	9	a 19					S 2.8 m				P	0.74	BIE01
1996 06 26.027		a	7.26	HI	0.8	G	9	a 22					S 2.8 m				P	0.81	BIE01
1996 06 26.053		K	7.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1996 06 26.122		K	8.08	HI	0.8	G	9	a 20					S 2.8 m				P	0.49	BIE01
1996 06 26.153		K	7.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.37	BIE01
1996 06 26.184		K	7.36	HI	0.8	G	9	a 20					S 2.8 m				P	0.28	BIE01
1996 06 26.215		K	7.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1996 06 26.251		K	7.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01
1996 06 26.276		K	7.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1996 06 26.343		K	7.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1996 06 26.376		K	6.63	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 06 26.438		K	6.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1996 06 26.476		K	6.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1996 06 26.507		K	5.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 06 26.538		K	5.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1996 06 26.574		K	5.66	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 06 26.600		K	5.55	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 06 26.666		K	5.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 06 26.692		K	5.53	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1996 06 26.886		a	7.81	HI	2.0	G	18	a 25					S59.5 s				P	0.15	BIE01

Comet C/1996 O1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 07 21.450		K	9.25	HI	0.8	G	9	a 19					S 2.8 m				P	1.41	BIE01

Comet C/1996 01 [cont.]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 07 21.481		K	8.52	HI	0.8G	9	a 20					S 2.8 m				P	0.74	BIE01
1996 07 21.517		K	7.76	HI	0.8G	9	a 19					S 2.8 m				P	0.38	BIE01
1996 07 21.543		K	7.96	HI	0.8G	9	a 19					S 2.8 m				P	0.47	BIE01
1996 07 21.705		K	7.12	HI	0.8G	9	a 19					S 2.8 m				P	0.27	BIE01
1996 07 21.743		K	6.96	HI	0.8G	9	a 19					S 2.8 m				P	0.25	BIE01
1996 07 21.833		K	7.02	HI	0.8G	9	a 19					S 2.8 m				P	0.32	BIE01
1996 07 21.859		K	7.02	HI	0.8G	9	a 19					S 2.8 m				P	0.35	BIE01

Comet C/1996 02

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 07 23.196		K	9.01	HI	0.8G	9	a 19					S 2.8 m				P	0.81	BIE01
1996 07 23.227		K	9.24	HI	0.8G	9	a 19					S 2.8 m				P	1.01	BIE01
1996 07 23.289		K	8.68	HI	0.8G	9	a 19					S 2.8 m				P	0.63	BIE01
1996 07 23.389		K	8.41	HI	0.8G	9	a 19					S 2.8 m				P	0.51	BIE01
1996 07 23.452		K	8.09	HI	0.8G	9	a 19					S 2.8 m				P	0.40	BIE01
1996 07 23.491		K	8.16	HI	0.8G	9	a 19					S 2.8 m				P	0.42	BIE01
1996 07 23.522		K	8.14	HI	0.8G	9	a 19					S 2.8 m				P	0.43	BIE01
1996 07 23.551		K	7.85	HI	0.8G	9	a 19					S 2.8 m				P	0.34	BIE01
1996 07 23.883		K	6.76	HI	0.8G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 07 23.909		K	6.61	HI	0.8G	9	a 19					S 2.8 m				P	0.15	BIE01
1996 07 23.976		a	5.32	HI	0.8G	9	a 24					S 2.8 m				P	0.30	BIE01
1996 07 24.002		K	6.41	HI	0.8G	9	a 19					S 2.8 m				P	0.15	BIE01
1996 07 24.133		K	6.55	HI	0.8G	9	a 19					S 2.8 m				P	0.18	BIE01
1996 07 24.164		K	6.89	HI	0.8G	9	a 19					S 2.8 m				P	0.34	BIE01

Comet C/1996 03

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 07 25.152		K	8.96	HI	0.8G	9	a 19					S 2.8 m				P	0.91	BIE01
1996 07 25.183		K	9.27	HI	0.8G	9	a 19					S 2.8 m				P	1.23	BIE01
1996 07 25.214		K	8.87	HI	0.8G	9	a 19					S 2.8 m				P	0.88	BIE01
1996 07 25.250		K	9.02	HI	0.8G	9	a 19					S 2.8 m				P	1.04	BIE01
1996 07 25.275		K	8.29	HI	0.8G	9	a 19					S 2.8 m				P	0.55	BIE01
1996 07 25.342		K	8.02	HI	0.8G	9	a 19					S 2.8 m				P	0.45	BIE01
1996 07 25.376		K	8.57	HI	0.8G	9	a 19					S 2.8 m				P	0.78	BIE01

Comet C/1996 04

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 07 26.957		K	8.84	HI	0.8G	9	a 19					S 2.8 m				P	0.66	BIE01
1996 07 27.031		K	8.71	HI	0.8G	9	a 19					S 2.8 m				P	0.60	BIE01
1996 07 27.074		K	8.32	HI	0.8G	9	a 19					S 2.8 m				P	0.43	BIE01
1996 07 27.120		K	8.49	HI	0.8G	9	a 19					S 2.8 m				P	0.51	BIE01
1996 07 27.156		K	8.14	HI	0.8G	9	a 19					S 2.8 m				P	0.38	BIE01
1996 07 27.622		K	6.61	HI	0.8G	9	a 19					S 2.8 m				P	0.13	BIE01
1996 07 27.633		K	6.94	HI	0.8G	9	a 19					S 2.8 m				P	0.18	BIE01
1996 07 27.663		K	6.27	HI	0.8G	9	a 19					S 2.8 m				P	0.10	BIE01
1996 07 27.813		K	5.65	HI	0.8G	9	a 20					S 2.8 m				P	0.07	BIE01
1996 07 27.839		K	5.70	HI	0.8G	9	a 19					S 2.8 m				P	0.08	BIE01
1996 07 27.940		K	6.22	HI	0.8G	9	a 19					S 2.8 m				P	0.15	BIE01
1996 07 27.974		K	6.09	HI	0.8G	9	a 19					S 2.8 m				P	0.15	BIE01
1996 07 28.008		K	6.59	HI	0.8G	9	a 19					S 2.8 m				P	0.29	BIE01

Comet C/1996 Q2

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 08 20.849		a	8.11	HI	0.8G	9	a 24					S 2.8 m				P	0.96	BIE01
1996 08 20.868		a	8.30	HI	0.8G	9	a 8					S 2.8 m				P	0.74	BIE01
1996 08 20.933		K	8.37	HI	0.8G	9	a 19					S 2.8 m				P	0.39	BIE01
1996 08 20.986		K	8.44	HI	0.8G	9	a 19					S 2.8 m				P	0.43	BIE01
1996 08 21.073		K	8.13	HI	0.8G	9	a 19					S 2.8 m				P	0.34	BIE01
1996 08 21.160		K	7.81	HI	0.8G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 08 21.209		K	7.34	HI	0.8G	9	a 19					S 2.8 m				P	0.18	BIE01
1996 08 21.360		K	6.96	HI	0.8G	9	a 19					S 2.8 m				P	0.13	BIE01

Comet C/1996 Q2 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 08 21.379		a	6.64	HI	0.8	G	9	a 8					S 2.8 m				P	0.26	BIE01
1996 08 21.423		K	6.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1996 08 21.485		K	6.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 08 21.527		K	6.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1996 08 21.567		K	6.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 08 21.610		K	6.08	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1996 08 21.653		K	5.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1996 08 21.870		a	4.72	HI	0.8	G	9	a 8					S 2.8 m				P	0.07	BIE01
1996 08 21.951		K	6.34	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1996 08 21.968		a	6.26	HI	0.8	G	9	a 25					S 2.8 m				P	0.87	BIE01

Comet C/1996 Q3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 08 30.160		K	8.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1996 08 30.208		K	8.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.46	BIE01
1996 08 30.313		K	7.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 08 30.361		K	7.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1996 08 30.379		a	5.91	HI	0.8	G	9	a 8					S 2.8 m				P	0.18	BIE01
1996 08 30.406		K	6.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 08 30.485		K	6.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1996 08 30.527		K	6.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1996 08 30.566		K	6.51	HI	0.8	G	9	a 20					S 2.8 m				P	0.17	BIE01
1996 08 30.582		K	6.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1996 08 30.590		K	6.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 08 30.664		K	7.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01

Comet C/1996 S3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 09 22.265		K	8.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.48	BIE01
1996 09 22.279		K	8.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.45	BIE01
1996 09 22.332		K	8.34	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1996 09 22.363		K	8.08	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1996 09 22.404		K	7.76	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1996 09 22.436		K	7.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.21	BIE01
1996 09 22.467		K	7.73	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1996 09 22.491		K	7.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 09 22.536		K	7.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1996 09 22.556		K	7.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1996 09 22.595		K	7.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1996 09 22.634		K	6.97	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1996 09 22.652		K	6.93	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1996 09 22.683		K	6.87	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 09 22.715		K	6.81	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 09 22.746		K	6.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1996 09 22.767		K	6.51	HI	0.8	G	9	a 20					S 2.8 m				P	0.09	BIE01
1996 09 22.794		K	6.51	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 09 22.808		K	6.44	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1996 09 22.836		a	5.96	HI	0.8	G	9	a 24					S 2.8 m				P	0.08	BIE01
1996 09 22.931		K	5.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1996 09 22.996		a	5.37	HI	0.8	G	9	a 24					S 2.8 m				P	0.06	BIE01
1996 09 23.019		K	5.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1996 09 23.095		K	5.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1996 09 23.189		K	5.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1996 09 23.211		K	5.11	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1996 09 23.304		K	5.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1996 09 23.354		K	5.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1996 09 23.385		K	6.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1996 09 23.435		a	8.19	HI	2.0	G	18	a 25					S59.5 s				P	0.30	BIE01

Comet C/1996 X1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 12 11.115		K	8.93	HI	0.8	G	9	a 19					S 2.8 m				P	0.94	BIE01

Comet C/1996 X1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 12 11.179		K	8.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.60	BIE01
1996 12 11.240		K	8.26	HI	0.8	G	9	a 19					S 2.8 m				P	0.67	BIE01
1996 12 11.302		K	8.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.85	BIE01
1996 12 11.365		K	7.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1996 12 11.429		K	7.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.60	BIE01
1996 12 11.490		K	7.64	HI	0.8	G	9	a 19					S 2.8 m				P	0.72	BIE01

Comet C/1996 X2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 12 11.763		a	7.17	HI	0.8	G	9	a 90					S 2.8 m				P	0.22	BIE01
1996 12 11.802		K	7.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.27	BIE01
1996 12 11.865		K	7.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1996 12 11.929		K	7.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1996 12 11.990		K	7.18	HI	0.8	G	9	a 20					S 2.8 m				P	0.27	BIE01
1996 12 12.057		K	6.94	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1996 12 12.115		K	6.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 12 12.179		K	6.57	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1996 12 12.240		K	6.51	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1996 12 12.302		K	6.19	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1996 12 12.365		K	5.82	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1996 12 12.429		K	5.61	HI	0.8	G	9	a 20					S 2.8 m				P	0.41	BIE01

Comet C/1996 Y1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1996 12 21.679		K	5.92	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1996 12 21.728		a	5.26	HI	0.8	G	9	a 90					S 2.8 m				P	0.03	BIE01
1996 12 21.820		K	5.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1996 12 21.865		K	5.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1996 12 21.994		K	4.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1996 12 22.072		K	4.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1996 12 22.107		K	3.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1996 12 22.141		K	3.48	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.176		K	3.28	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.211		K	3.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.246		K	2.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.281		K	2.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.316		K	2.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.351		K	2.44	HI	0.8	G	9	a 20					S 2.8 m				P	0.01	BIE01
1996 12 22.386		K	2.35	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.420		K	2.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.455		K	1.90	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.490		K	1.71	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.525		K	1.65	HI	0.8	G	9	a 20					S 2.8 m				P	0.02	BIE01
1996 12 22.873		K	0.86	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.907		K	0.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.942		K	1.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 22.977		K	1.23	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1996 12 23.012		K	1.66	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1996 12 23.039		a	2.37	HI	2.0	G	18	a 26					S59.5 s				P	0.01	BIE01
1996 12 23.047		K	2.16	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1996 12 23.059		a	2.90	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.073		a	3.61	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.094		a	3.98	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.108		a	3.83	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.128		a	3.58	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.143		a	3.38	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.163		a	3.24	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.178		a	3.38	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1996 12 23.198		a	4.12	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01

Comet C/1997 B2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 01 26.245	a		7.10	HI	0.8	G	9	a 90					S 2.8 m				P	0.29	BIE01
1997 01 26.307	K		8.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.75	BIE01
1997 01 26.365	K		7.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.56	BIE01
1997 01 26.429	K		7.55	HI	0.8	G	9	a 19					S 2.8 m				P	0.51	BIE01
1997 01 26.490	K		7.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.41	BIE01
1997 01 26.552	K		6.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.37	BIE01

Comet C/1997 B3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 01 22.115	K		9.00	HI	0.8	G	9	a 19					S 2.8 m				P	1.63	BIE01
1997 01 22.179	K		7.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 01 22.240	K		7.51	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1997 01 22.245	a		6.42	HI	0.8	G	9	a 90					S 2.8 m				P	0.27	BIE01
1997 01 22.302	K		7.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1997 01 22.365	K		7.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.93	BIE01

Comet C/1997 G3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 04.118	a		7.50	HI	2.0	G	18	a 25					S59.5 s				P	0.19	BIE01
1997 04 04.140	a		8.02	HI	2.0	G	18	a 26					S59.5 s				P	0.30	BIE01
1997 04 04.156	a		7.97	HI	2.0	G	18	a 25					S59.5 s				P	0.30	BIE01

Comet C/1997 G4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 05.455	a		9.06	HI	2.0	G	18	a 26					S59.5 s				P	0.77	BIE01
1997 04 05.477	a		8.59	HI	2.0	G	18	a 25					S59.5 s				P	0.52	BIE01
1997 04 05.492	a		8.29	HI	2.0	G	18	a 25					S59.5 s				P	0.39	BIE01
1997 04 05.529	a		8.55	HI	2.0	G	18	a 25					S59.5 s				P	0.57	BIE01

Comet C/1997 G5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 05.826	a		8.53	HI	2.0	G	18	a 25					S59.5 s				P	0.48	BIE01
1997 04 05.848	a		8.77	HI	2.0	G	18	a 25					S59.5 s				P	0.60	BIE01
1997 04 05.863	a		8.67	HI	2.0	G	18	a 25					S59.5 s				P	0.56	BIE01
1997 04 05.886	a		8.53	HI	2.0	G	18	a 25					S59.5 s				P	0.52	BIE01

Comet C/1997 G6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 11.177	a		6.13	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 04 11.199	a		6.14	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 04 11.214	a		6.00	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 04 11.235	a		6.17	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1997 04 11.250	a		6.22	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1997 04 11.272	a		6.32	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1997 04 11.287	a		6.69	HI	2.0	G	18	a 25					S59.5 s				P	0.11	BIE01
1997 04 11.309	a		6.95	HI	2.0	G	18	a 25					S59.5 s				P	0.16	BIE01
1997 04 11.324	a		7.45	HI	2.0	G	18	a 25					S59.5 s				P	0.29	BIE01
1997 04 11.346	a		8.19	HI	2.0	G	18	a 25					S59.5 s				P	0.70	BIE01

Comet C/1997 H3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 25.698	K		8.79	HI	0.8	G	9	a 19					S 2.8 m				P	1.17	BIE01
1997 04 25.736	a		5.87	HI	0.8	G	9	a 90					S 2.8 m				P	0.08	BIE01
1997 04 25.888	K		8.23	HI	0.8	G	9	a 19					S 2.8 m				P	0.60	BIE01
1997 04 25.890	K		8.31	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1997 04 25.952	K		7.51	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1997 04 25.990	K		7.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1997 04 26.031	K		7.52	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1997 04 26.080	K		7.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01

Comet C/1997 H3 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 04 26.127		K	6.81	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 04 26.163		K	6.94	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1997 04 26.192		K	5.76	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 04 26.245		a	5.17	HI	0.8	G	9	a 90					S 2.8 m				P	0.14	BIE01
1997 04 26.338		K	6.38	HI	0.8	G	9	a 19					S 2.8 m				P	0.60	BIE01

Comet C/1997 J3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 10.397		a	6.64	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1997 05 10.431		a	6.82	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1997 05 10.446		a	6.84	HI	2.0	G	18	a 25					S59.5 s				P	0.15	BIE01
1997 05 10.480		a	7.02	HI	2.0	G	18	a 26					S59.5 s				P	0.21	BIE01
1997 05 10.496		a	7.15	HI	2.0	G	18	a 25					S59.5 s				P	0.25	BIE01
1997 05 10.522		a	7.54	HI	2.0	G	18	a 25					S59.5 s				P	0.42	BIE01

Comet C/1997 J4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 10.397		a	6.28	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1997 05 10.446		a	6.44	HI	2.0	G	18	a 25					S59.5 s				P	0.11	BIE01
1997 05 10.464		a	6.73	HI	2.0	G	18	a 25					S59.5 s				P	0.17	BIE01
1997 05 10.480		a	6.68	HI	2.0	G	18	a 26					S59.5 s				P	0.18	BIE01
1997 05 10.496		a	6.91	HI	2.0	G	18	a 25					S59.5 s				P	0.26	BIE01

Comet C/1997 K1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 31.221		K	8.59	HI	0.8	G	9	a 19					S 2.8 m				P	0.68	BIE01
1997 05 31.278		K	8.44	HI	0.8	G	9	a 19					S 2.8 m				P	0.62	BIE01
1997 05 31.333		K	8.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.93	BIE01
1997 05 31.384		K	7.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1997 05 31.405		a	6.91	HI	0.8	G	9	a 90					S 2.8 m				P	0.21	BIE01
1997 05 31.433		K	7.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1997 05 31.486		K	7.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01
1997 05 31.527		K	7.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1997 05 31.781		K	6.44	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1997 05 31.828		a	5.31	HI	0.8	G	9	a 90					S 2.8 m				P	0.07	BIE01
1997 05 31.866		K	6.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1997 05 31.911		K	5.94	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1997 05 31.945		K	5.75	HI	0.8	G	9	a 20					S 2.8 m				P	0.11	BIE01
1997 05 31.976		K	5.59	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 06 01.028		K	5.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1997 06 01.074		K	5.10	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1997 06 01.122		K	5.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 06 01.151		a	4.12	HI	0.8	G	9	a 90					S 2.8 m				P	0.06	BIE01
1997 06 01.178		K	5.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1997 06 01.188		a	4.26	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1997 06 01.221		K	5.22	HI	0.8	G	9	a 19					S 2.8 m				P	0.18	BIE01
1997 06 01.229		a	4.40	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1997 06 01.313		a	5.28	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1997 06 01.354		a	6.24	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01

Comet C/1997 K3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 25.906		a	7.27	HI	2.0	G	18	a 25					S59.5 s				P	0.15	BIE01
1997 05 25.956		a	7.42	HI	2.0	G	18	a 25					S59.5 s				P	0.20	BIE01
1997 05 25.995		a	7.26	HI	2.0	G	18	a 25					S59.5 s				P	0.20	BIE01
1997 05 26.024		a	7.56	HI	2.0	G	18	a 25					S59.5 s				P	0.29	BIE01

Comet C/1997 K4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 31.777		a	6.92	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01

Comet C/1997 K4 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 31.907	a		7.12	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1997 05 31.920	a		7.31	HI	2.0	G	18	a 26					S59.5	s			P	0.21	BIE01
1997 05 31.938	a		7.19	HI	2.0	G	18	a 25					S59.5	s			P	0.21	BIE01
1997 05 31.980	a		8.28	HI	2.0	G	18	a 25					S59.5	s			P	0.69	BIE01

Comet C/1997 K5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 20.264	a		7.03	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1997 05 20.375	a		8.01	HI	2.0	G	18	a 25					S59.5	s			P	0.35	BIE01

Comet C/1997 K6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 31.229	a		7.35	HI	2.0	G	18	a 25					S59.5	s			P	0.23	BIE01
1997 05 31.269	a		7.44	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01

Comet C/1997 K7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 05 31.845	a		7.73	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1997 05 31.907	a		8.29	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1997 05 31.920	a		8.65	HI	2.0	G	18	a 26					S59.5	s			P	0.51	BIE01
1997 05 31.938	a		9.20	HI	2.0	G	18	a 25					S59.5	s			P	0.91	BIE01

Comet C/1997 L3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 12.523	K		9.37	HI	0.8	G	9	a 19					S 2.8	m			P	1.21	BIE01
1997 06 12.681	K		8.52	HI	0.8	G	9	a 19					S 2.8	m			P	0.60	BIE01
1997 06 12.726	K		8.49	HI	0.8	G	9	a 19					S 2.8	m			P	0.61	BIE01
1997 06 12.780	K		8.28	HI	0.8	G	9	a 19					S 2.8	m			P	0.51	BIE01
1997 06 12.829	K		8.18	HI	0.8	G	9	a 19					S 2.8	m			P	0.49	BIE01
1997 06 12.897	K		7.77	HI	0.8	G	9	a 19					S 2.8	m			P	0.35	BIE01
1997 06 12.931	K		7.74	HI	0.8	G	9	a 19					S 2.8	m			P	0.35	BIE01
1997 06 12.972	K		7.39	HI	0.8	G	9	a 19					S 2.8	m			P	0.26	BIE01
1997 06 12.995	K		7.46	HI	0.8	G	9	a 19					S 2.8	m			P	0.28	BIE01
1997 06 13.073	K		7.24	HI	0.8	G	9	a 19					S 2.8	m			P	0.25	BIE01
1997 06 13.122	K		6.68	HI	0.8	G	9	a 20					S 2.8	m			P	0.15	BIE01
1997 06 13.150	a		5.44	HI	0.8	G	9	a 90					S 2.8	m			P	0.06	BIE01
1997 06 13.193	K		6.11	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1997 06 13.240	K		5.87	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1997 06 13.285	K		5.63	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 06 13.355	K		5.27	HI	0.8	G	9	a 19					S 2.8	m			P	0.06	BIE01
1997 06 13.406	a		4.17	HI	0.8	G	9	a 90					S 2.8	m			P	0.03	BIE01
1997 06 13.424	K		5.23	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 06 13.447	K		5.17	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 06 13.518	K		5.41	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1997 06 13.563	a		5.74	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 06 13.585	K		6.29	HI	0.8	G	9	a 19					S 2.8	m			P	0.37	BIE01
1997 06 13.625	a		8.28	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1997 06 13.631	a		8.43	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01

Comet C/1997 L4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 14.355	K		8.39	HI	0.8	G	9	a 19					S 2.8	m			P	0.52	BIE01
1997 06 14.424	K		8.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.63	BIE01
1997 06 14.447	K		8.28	HI	0.8	G	9	a 19					S 2.8	m			P	0.49	BIE01
1997 06 14.488	K		8.19	HI	0.8	G	9	a 19					S 2.8	m			P	0.45	BIE01
1997 06 14.518	K		7.83	HI	0.8	G	9	a 19					S 2.8	m			P	0.33	BIE01
1997 06 14.587	K		7.53	HI	0.8	G	9	a 19					S 2.8	m			P	0.26	BIE01
1997 06 14.622	K		7.20	HI	0.8	G	9	a 19					S 2.8	m			P	0.28	BIE01
1997 06 14.672	K		7.06	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 06 14.722	K		6.96	HI	0.8	G	9	a 19					S 2.8	m			P	0.17	BIE01

Comet C/1997 L4 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 14.774		K	6.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1997 06 14.832		K	6.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1997 06 14.870		K	6.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 06 14.878		a	5.45	HI	0.8	G	9	a 90					S 2.8 m				P	0.06	BIE01
1997 06 14.931		K	6.34	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 06 14.972		K	6.10	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1997 06 15.018		K	6.10	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1997 06 15.073		K	5.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1997 06 15.122		K	5.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1997 06 15.150		a	4.63	HI	0.8	G	9	a 90					S 2.8 m				P	0.04	BIE01
1997 06 15.196		K	5.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1997 06 15.240		K	5.26	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1997 06 15.285		K	5.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1997 06 15.355		K	4.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1997 06 15.405		a	3.73	HI	0.8	G	9	a 90					S 2.8 m				P	0.03	BIE01
1997 06 15.424		K	4.67	HI	0.8	G	9	a 20					S 2.8 m				P	0.05	BIE01
1997 06 15.447		K	4.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1997 06 15.479		a	3.93	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1997 06 15.488		K	4.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1997 06 15.518		K	4.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1997 06 15.587		K	4.90	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 06 15.604		a	4.45	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1997 06 15.645		a	5.03	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1997 06 15.661		a	5.35	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1997 06 15.686		a	6.20	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 06 15.708		a	8.36	HI	2.0	G	18	a 25					S59.5 s				P	0.60	BIE01
1997 06 15.730		a	7.75	HI	2.0	G	18	a 25					S59.5 s				P	0.27	BIE01

Comet C/1997 L5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 12.146		a	7.84	HI	2.0	G	18	a 25					S59.5 s				P	0.20	BIE01
1997 06 12.188		a	7.81	HI	2.0	G	18	a 25					S59.5 s				P	0.21	BIE01
1997 06 12.209		a	8.08	HI	2.0	G	18	a 26					S59.5 s				P	0.27	BIE01
1997 06 12.229		a	8.38	HI	2.0	G	18	a 25					S59.5 s				P	0.38	BIE01
1997 06 12.281		a	9.17	HI	2.0	G	18	a 25					S59.5 s				P	0.94	BIE01

Comet C/1997 M1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 29.826		K	9.15	HI	0.8	G	9	a 19					S 2.8 m				P	1.02	BIE01
1997 06 29.850		K	8.66	HI	0.8	G	9	a 19					S 2.8 m				P	0.66	BIE01
1997 06 29.953		K	8.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.67	BIE01
1997 06 29.995		K	8.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.45	BIE01
1997 06 30.028		K	8.28	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1997 06 30.074		K	8.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1997 06 30.144		K	7.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1997 06 30.182		K	7.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 06 30.241		K	7.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1997 06 30.278		K	6.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1997 06 30.331		K	6.48	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1997 06 30.384		K	6.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1997 06 30.406		a	5.09	HI	0.8	G	9	a 90					S 2.8 m				P	0.05	BIE01
1997 06 30.432		K	6.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 06 30.481		K	5.96	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1997 06 30.528		K	6.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1997 06 30.609		a	5.28	HI	0.8	G	9	a 90					S 2.8 m				P	0.10	BIE01
1997 06 30.657		K	6.89	HI	0.8	G	9	a 19					S 2.8 m				P	0.48	BIE01

Comet C/1997 M3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 28.603		a	6.42	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1997 06 28.625		a	6.27	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 06 28.646		a	6.34	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01

Comet C/1997 M3 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 28.670	a		6.76	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1997 06 28.684	a		6.96	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01

Comet C/1997 M4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 17.685	a		6.79	HI	2.0	G	18	a 25					S59.5	s			P	0.07	BIE01
1997 06 17.783	a		6.80	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1997 06 17.813	a		7.04	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1997 06 17.855	a		7.81	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01

Comet C/1997 M5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 06 19.725	a		6.77	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01

Comet C/1997 N3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 07 04.670	a		7.43	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1997 07 04.684	a		7.56	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01

Comet C/1997 P1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 03.865	K		9.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.78	BIE01
1997 08 03.888	K		9.66	HI	0.8	G	9	a 19					S 2.8	m			P	0.92	BIE01
1997 08 03.945	K		9.27	HI	0.8	G	9	a 19					S 2.8	m			P	0.66	BIE01
1997 08 03.989	K		8.67	HI	0.8	G	9	a 19					S 2.8	m			P	0.38	BIE01
1997 08 04.031	K		8.56	HI	0.8	G	9	a 19					S 2.8	m			P	0.34	BIE01
1997 08 04.073	K		8.11	HI	0.8	G	9	a 19					S 2.8	m			P	0.23	BIE01
1997 08 04.101	K		8.09	HI	0.8	G	9	a 19					S 2.8	m			P	0.23	BIE01
1997 08 04.113	a		7.28	HI	0.8	G	9	a 90					S 2.8	m			P	0.27	BIE01
1997 08 04.139	K		7.99	HI	0.8	G	9	a 19					S 2.8	m			P	0.21	BIE01
1997 08 04.168	K		7.88	HI	0.8	G	9	a 19					S 2.8	m			P	0.19	BIE01
1997 08 04.194	K		7.91	HI	0.8	G	9	a 19					S 2.8	m			P	0.20	BIE01
1997 08 04.226	K		7.60	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1997 08 04.245	K		7.53	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1997 08 04.287	K		7.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1997 08 04.451	K		6.75	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 08 04.486	K		6.80	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1997 08 04.503	K		6.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 08 04.506	K		6.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.07	BIE01
1997 08 04.581	K		6.30	HI	0.8	G	9	a 20					S 2.8	m			P	0.05	BIE01
1997 08 04.584	K		6.29	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1997 08 04.603	K		6.11	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1997 08 04.613	K		6.10	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1997 08 04.627	K		6.17	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1997 08 04.678	K		5.90	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1997 08 04.692	K		5.84	HI	0.8	G	9	a 20					S 2.8	m			P	0.04	BIE01
1997 08 04.706	K		5.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1997 08 04.720	K		5.71	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.734	K		5.63	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.747	K		5.62	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.776	K		5.67	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.799	K		5.50	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.809	K		5.50	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1997 08 04.869	K		5.20	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 04.914	K		4.96	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 04.951	K		4.84	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 04.963	K		4.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 04.988	K		4.85	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 05.009	K		4.69	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 05.035	K		4.62	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1997 08 05.065	K		4.46	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01

Comet C/1997 P1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 05.076		K	4.40	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.100		K	4.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.113		K	4.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.123		K	4.26	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.148		K	4.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.173		K	4.03	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.192		a	2.92	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1997 08 05.219		K	3.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.233		a	2.73	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1997 08 05.269		K	3.53	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.295		K	3.44	HI	0.8	G	9	a 20					S 2.8 m				P	0.01	BIE01
1997 08 05.325		K	3.35	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.336		K	3.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.361		K	3.33	HI	0.8	G	9	a 20					S 2.8 m				P	0.01	BIE01
1997 08 05.374		K	3.33	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.385		K	3.29	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.410		K	3.31	HI	0.8	G	9	a 21					S 2.8 m				P	0.01	BIE01
1997 08 05.435		K	3.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.453		a	2.44	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1997 08 05.480		K	3.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.503		K	3.59	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1997 08 05.522		K	3.79	HI	0.8	G	9	a 20					S 2.8 m				P	0.02	BIE01
1997 08 05.548		K	4.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1997 08 05.578		K	4.42	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1997 08 05.589		K	4.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1997 08 05.614		K	5.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 08 05.627		K	5.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 08 05.634		a	6.25	HI	2.0	G	18	a 25					S59.5 s				P	0.04	BIE01
1997 08 05.639		K	6.08	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 08 05.650		a	6.81	HI	2.0	G	18	a 26					S59.5 s				P	0.06	BIE01
1997 08 05.660		a	7.17	HI	2.0	G	18	a 26					S59.5 s				P	0.09	BIE01
1997 08 05.671		a	7.19	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1997 08 05.684		a	7.59	HI	2.0	G	18	a 25					S59.5 s				P	0.17	BIE01
1997 08 05.707		a	7.03	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1997 08 05.715		a	6.71	HI	2.0	G	18	a 25					S59.5 s				P	0.12	BIE01
1997 08 05.724		a	6.38	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1997 08 05.736		a	6.39	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1997 08 05.749		a	6.58	HI	2.0	G	18	a 25					S59.5 s				P	0.25	BIE01

Comet C/1997 P3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 07.743		K	9.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.96	BIE01
1997 08 07.769		K	9.05	HI	0.8	G	9	a 19					S 2.8 m				P	1.03	BIE01
1997 08 07.791		K	8.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.56	BIE01
1997 08 07.827		K	7.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.41	BIE01
1997 08 07.855		K	8.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.63	BIE01
1997 08 07.892		K	7.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1997 08 07.919		K	7.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.37	BIE01
1997 08 07.934		K	7.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.43	BIE01
1997 08 07.964		K	7.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1997 08 07.985		K	7.86	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01
1997 08 08.009		K	7.57	HI	0.8	G	9	a 19					S 2.8 m				P	0.38	BIE01
1997 08 08.035		K	7.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.43	BIE01
1997 08 08.065		K	7.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.56	BIE01
1997 08 08.076		K	7.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.50	BIE01
1997 08 08.087		a	6.50	HI	0.8	G	9	a 90					S 2.8 m				P	0.32	BIE01

Comet C/1997 Q1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 31.399		K	8.96	HI	0.8	G	9	a 19					S 2.8 m				P	0.77	BIE01
1997 08 31.419		K	8.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.70	BIE01
1997 08 31.442		K	9.30	HI	0.8	G	9	a 19					S 2.8 m				P	1.08	BIE01
1997 08 31.473		K	8.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.73	BIE01

Comet C/1997 Q1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 31.493		K	8.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.77	BIE01
1997 08 31.529		K	8.97	HI	0.8	G	9	a 19					S 2.8 m				P	0.84	BIE01
1997 08 31.575		K	8.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1997 08 31.614		K	8.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1997 08 31.645		K	8.24	HI	0.8	G	9	a 20					S 2.8 m				P	0.47	BIE01
1997 08 31.668		K	7.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1997 08 31.706		K	7.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 08 31.757		K	7.57	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 08 31.789		K	7.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 08 31.838		K	7.12	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 08 31.855		K	6.95	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 08 31.874		a	6.47	HI	0.8	G	9	a 91					S 2.8 m				P	0.16	BIE01
1997 08 31.909		K	7.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.25	BIE01
1997 08 31.938		K	7.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.27	BIE01

Comet C/1997 Q2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 08 22.771		K	8.85	HI	0.8	G	9	a 20					S 2.8 m				P	0.56	BIE01
1997 08 22.908		K	7.57	HI	0.8	G	9	a 20					S 2.8 m				P	0.19	BIE01
1997 08 22.953		K	7.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1997 08 22.983		K	7.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1997 08 23.029		K	6.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1997 08 23.067		K	6.40	HI	0.8	G	9	a 19					S 2.8 m				P	0.07	BIE01
1997 08 23.115		K	6.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1997 08 23.178		K	5.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1997 08 23.212		K	5.74	HI	0.8	G	9	a 20					S 2.8 m				P	0.04	BIE01
1997 08 23.244		a	4.47	HI	0.8	G	9	a 90					S 2.8 m				P	0.02	BIE01
1997 08 23.268		K	5.40	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1997 08 23.326		K	5.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1997 08 23.375		K	5.21	HI	0.8	G	9	a 20					S 2.8 m				P	0.03	BIE01
1997 08 23.432		K	5.04	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1997 08 23.525		K	4.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1997 08 23.576		K	4.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1997 08 23.621		K	4.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1997 08 23.696		K	4.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1997 08 23.771		K	4.42	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1997 08 23.829		K	4.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1997 08 23.864		K	5.08	HI	0.8	G	9	a 20					S 2.8 m				P	0.07	BIE01
1997 08 23.892		a	4.78	HI	0.8	G	9	a 90					S 2.8 m				P	0.08	BIE01
1997 08 23.915		K	6.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 08 23.930		a	6.94	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1997 08 23.940		a	7.33	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01
1997 08 23.970		a	8.12	HI	2.0	G	18	a 26					S59.5 s				P	0.24	BIE01
1997 08 23.994		a	7.52	HI	2.0	G	18	a 25					S59.5 s				P	0.18	BIE01
1997 08 24.008		a	7.12	HI	2.0	G	18	a 25					S59.5 s				P	0.16	BIE01
1997 08 24.019		a	6.73	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01

Comet C/1997 R1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 08.149		K	8.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.94	BIE01
1997 09 08.168		K	8.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.78	BIE01
1997 09 08.198		a	7.58	HI	0.8	G	9	a 90					S 2.8 m				P	0.51	BIE01
1997 09 08.217		K	7.84	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1997 09 08.234		K	8.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1997 09 08.251		K	8.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.45	BIE01
1997 09 08.287		K	8.17	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1997 09 08.324		K	8.02	HI	0.8	G	9	a 19					S 2.8 m				P	0.48	BIE01
1997 09 08.348		K	7.99	HI	0.8	G	9	a 19					S 2.8 m				P	0.48	BIE01
1997 09 08.365		K	7.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1997 09 08.408		K	8.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 09 08.445		K	8.19	HI	0.8	G	9	a 19					S 2.8 m				P	0.70	BIE01
1997 09 08.472		K	7.71	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01
1997 09 08.493		K	8.00	HI	0.8	G	9	a 19					S 2.8 m				P	0.64	BIE01

Comet C/1997 R1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 08.529		K	7.22	HI	0.8	G	9	a 20					S 2.8 m				P	0.48	BIE01

Comet C/1997 R2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 14.943		K	8.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.67	BIE01
1997 09 14.968		K	8.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.72	BIE01
1997 09 14.982		K	8.31	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1997 09 15.016		K	8.35	HI	0.8	G	9	a 19					S 2.8 m				P	0.53	BIE01
1997 09 15.038		K	8.24	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1997 09 15.065		K	7.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1997 09 15.103		K	7.55	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 09 15.149		K	7.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 09 15.168		K	6.97	HI	0.8	G	9	a 19					S 2.8 m				P	0.18	BIE01
1997 09 15.197		a	6.02	HI	0.8	G	9	a 90					S 2.8 m				P	0.11	BIE01
1997 09 15.216		K	7.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 09 15.231		K	7.08	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1997 09 15.251		K	7.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 15.287		K	7.00	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1997 09 15.347		K	6.87	HI	0.8	G	9	a 19					S 2.8 m				P	0.25	BIE01
1997 09 15.365		K	6.68	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 15.406		K	7.44	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1997 09 15.454		a	7.83	HI	2.0	G	18	a 25					S59.5 s				P	0.13	BIE01
1997 09 15.465		a	8.20	HI	2.0	G	18	a 25					S59.5 s				P	0.18	BIE01
1997 09 15.482		a	8.71	HI	2.0	G	18	a 25					S59.5 s				P	0.31	BIE01

Comet C/1997 R3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 15.998		K	8.73	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 09 16.036		K	8.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.62	BIE01
1997 09 16.101		K	8.18	HI	0.8	G	9	a 20					S 2.8 m				P	0.37	BIE01
1997 09 16.125		K	8.03	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1997 09 16.148		K	7.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1997 09 16.185		K	8.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.39	BIE01
1997 09 16.197		a	6.92	HI	0.8	G	9	a 91					S 2.8 m				P	0.15	BIE01
1997 09 16.229		K	7.79	HI	0.8	G	9	a 20					S 2.8 m				P	0.27	BIE01
1997 09 16.278		K	7.73	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1997 09 16.324		K	7.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 16.347		K	7.92	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1997 09 16.365		K	7.35	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 16.406		K	7.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 16.442		K	7.07	HI	0.8	G	9	a 20					S 2.8 m				P	0.18	BIE01
1997 09 16.477		K	6.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1997 09 16.490		K	7.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 09 16.529		K	6.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 09 16.575		K	6.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.14	BIE01
1997 09 16.612		K	6.54	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1997 09 16.644		K	6.68	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 09 16.662		K	6.64	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 09 16.688		K	6.82	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1997 09 16.714		K	6.65	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1997 09 16.718		K	6.80	HI	0.8	G	9	a 20					S 2.8 m				P	0.27	BIE01
1997 09 16.761		K	8.13	HI	0.8	G	9	a 19					S 2.8 m				P	1.23	BIE01
1997 09 16.802		a	7.67	HI	2.0	G	18	a 25					S59.5 s				P	0.12	BIE01

Comet C/1997 S1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 29.865		K	9.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.74	BIE01
1997 09 29.918		K	8.35	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1997 09 29.957		K	8.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.38	BIE01
1997 09 29.988		K	8.31	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1997 09 29.995		K	8.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.31	BIE01
1997 09 30.019		K	8.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01

Comet C/1997 S1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 30.037		K	8.13	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 09 30.065		K	8.00	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 09 30.103		K	7.99	HI	0.8	G	9	a 19					S 2.8 m				P	0.28	BIE01
1997 09 30.132		K	7.68	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 30.168		K	7.81	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1997 09 30.197		a	6.41	HI	0.8	G	9	a 90					S 2.8 m				P	0.23	BIE01
1997 09 30.216		K	7.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1997 09 30.230		K	7.22	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1997 09 30.251		K	7.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 09 30.291		K	6.93	HI	0.8	G	9	a 20					S 2.8 m				P	0.14	BIE01
1997 09 30.331		K	7.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 09 30.367		K	7.05	HI	0.8	G	9	a 19					S 2.8 m				P	0.18	BIE01
1997 09 30.406		K	6.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1997 09 30.441		K	6.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 09 30.493		K	7.18	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1997 09 30.519		a	6.77	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1997 09 30.538		a	7.07	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1997 09 30.571		a	7.82	HI	2.0	G	18	a 26					S59.5 s				P	0.15	BIE01
1997 09 30.590		a	8.53	HI	2.0	G	18	a 25					S59.5 s				P	0.34	BIE01

Comet C/1997 S2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 25.481		K	9.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.92	BIE01
1997 09 25.490		K	9.34	HI	0.8	G	9	a 19					S 2.8 m				P	1.06	BIE01
1997 09 25.527		K	8.85	HI	0.8	G	9	a 19					S 2.8 m				P	0.69	BIE01
1997 09 25.575		K	8.63	HI	0.8	G	9	a 19					S 2.8 m				P	0.59	BIE01
1997 09 25.677		K	8.54	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01
1997 09 25.702		K	8.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.52	BIE01
1997 09 25.720		K	8.14	HI	0.8	G	9	a 19					S 2.8 m				P	0.43	BIE01
1997 09 25.746		K	8.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.56	BIE01
1997 09 25.869		K	7.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.29	BIE01
1997 09 25.909		K	7.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1997 09 25.942		K	7.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.31	BIE01
1997 09 25.967		K	7.34	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01
1997 09 25.982		K	7.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.44	BIE01
1997 09 26.016		K	7.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.38	BIE01
1997 09 26.037		K	8.10	HI	0.8	G	9	a 19					S 2.8 m				P	0.70	BIE01
1997 09 26.065		K	7.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.59	BIE01
1997 09 26.181		a	8.29	HI	2.0	G	18	a 25					S59.5 s				P	0.19	BIE01

Comet C/1997 S3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 09 24.465		a	8.40	HI	2.0	G	18	a 26					S59.5 s				P	0.35	BIE01
1997 09 24.500		a	8.20	HI	2.0	G	18	a 25					S59.5 s				P	0.32	BIE01
1997 09 24.518		a	8.38	HI	2.0	G	18	a 25					S59.5 s				P	0.41	BIE01
1997 09 24.538		a	8.26	HI	2.0	G	18	a 25					S59.5 s				P	0.43	BIE01

Comet C/1997 T2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 03.340		K	8.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1997 10 03.365		K	8.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.53	BIE01
1997 10 03.406		K	8.55	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1997 10 03.441		K	8.54	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 10 03.493		K	8.49	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 10 03.529		K	7.92	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1997 10 03.574		K	7.95	HI	0.8	G	9	a 19					S 2.8 m				P	0.37	BIE01
1997 10 03.615		K	7.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1997 10 03.638		K	7.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.27	BIE01
1997 10 03.662		K	7.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1997 10 03.686		K	6.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 10 03.715		K	6.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1997 10 03.744		K	6.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01

Comet C/1997 T2 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 03.758		K	6.61	HI	0.8	G	9	a 20					S 2.8 m				P	0.14	BIE01
1997 10 03.837		K	6.11	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1997 10 03.881		K	5.95	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1997 10 03.902		a	4.82	HI	0.8	G	9	a 90					S 2.8 m				P	0.05	BIE01
1997 10 03.920		K	5.95	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 10 03.936		K	5.97	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 10 03.967		K	5.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1997 10 03.982		K	5.78	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1997 10 04.031		a	6.18	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1997 10 04.037		K	6.16	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1997 10 04.062		a	6.39	HI	2.0	G	18	a 25					S59.5 s				P	0.04	BIE01
1997 10 04.065		K	6.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.53	BIE01
1997 10 04.086		a	6.81	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1997 10 04.099		a	7.33	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1997 10 04.122		a	8.28	HI	2.0	G	18	a 25					S59.5 s				P	0.30	BIE01

Comet C/1997 T4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 06.260		K	8.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.91	BIE01
1997 10 06.289		K	8.46	HI	0.8	G	9	a 19					S 2.8 m				P	0.76	BIE01
1997 10 06.351		K	7.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01
1997 10 06.369		K	8.23	HI	0.8	G	9	a 19					S 2.8 m				P	0.72	BIE01
1997 10 06.406		K	7.66	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1997 10 06.444		K	7.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.50	BIE01
1997 10 06.505		K	7.23	HI	0.8	G	9	a 20					S 2.8 m				P	0.46	BIE01
1997 10 06.537		K	7.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.50	BIE01
1997 10 06.545		a	7.52	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01
1997 10 06.585		a	7.46	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1997 10 06.609		a	7.68	HI	2.0	G	18	a 25					S59.5 s				P	0.13	BIE01
1997 10 06.617		a	7.65	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1997 10 06.645		a	8.27	HI	2.0	G	18	a 25					S59.5 s				P	0.30	BIE01

Comet C/1997 T5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 07.217		K	8.81	HI	0.8	G	9	a 19					S 2.8 m				P	0.64	BIE01
1997 10 07.251		K	8.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.54	BIE01
1997 10 07.287		K	8.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.57	BIE01
1997 10 07.324		K	8.22	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01
1997 10 07.365		a	7.36	HI	0.8	G	9	a 90					S 2.8 m				P	0.32	BIE01
1997 10 07.407		K	8.38	HI	0.8	G	9	a 19					S 2.8 m				P	0.55	BIE01
1997 10 07.441		K	7.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.38	BIE01
1997 10 07.495		K	7.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1997 10 07.529		K	7.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1997 10 07.574		K	7.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1997 10 07.638		K	7.21	HI	0.8	G	9	a 20					S 2.8 m				P	0.33	BIE01
1997 10 07.728		a	7.77	HI	2.0	G	18	a 25					S59.5 s				P	0.13	BIE01
1997 10 07.766		a	8.79	HI	2.0	G	18	a 25					S59.5 s				P	0.40	BIE01

Comet C/1997 T6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 01.994		a	8.94	HI	2.0	G	18	a 25					S59.5 s				P	0.47	BIE01
1997 10 02.013		a	8.43	HI	2.0	G	18	a 26					S59.5 s				P	0.35	BIE01
1997 10 02.031		a	7.92	HI	2.0	G	18	a 25					S59.5 s				P	0.23	BIE01
1997 10 02.062		a	8.49	HI	2.0	G	18	a 25					S59.5 s				P	0.41	BIE01

Comet C/1997 T7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 08.335		a	8.46	HI	2.0	G	18	a 25					S59.5 s				P	0.33	BIE01
1997 10 08.353		a	8.06	HI	2.0	G	18	a 25					S59.5 s				P	0.25	BIE01
1997 10 08.376		a	8.11	HI	2.0	G	18	a 25					S59.5 s				P	0.27	BIE01
1997 10 08.395		a	8.87	HI	2.0	G	18	a 25					S59.5 s				P	0.59	BIE01

Comet C/1997 T7 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 08.412		a	9.19	HI	2.0	G	18	a 25					S59.5	s			P	0.88	BIE01

Comet C/1997 T8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 08.741		a	8.20	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01
1997 10 08.755		a	8.53	HI	2.0	G	18	a 25					S59.5	s			P	0.39	BIE01
1997 10 08.765		a	8.92	HI	2.0	G	18	a 25					S59.5	s			P	0.58	BIE01

Comet C/1997 U1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 28.134		K	8.80	HI	0.8	G	9	a 19					S 2.8	m			P	0.66	BIE01
1997 10 28.197		a	8.30	HI	0.8	G	9	a 90					S 2.8	m			P	0.85	BIE01
1997 10 28.250		K	8.67	HI	0.8	G	9	a 19					S 2.8	m			P	0.63	BIE01
1997 10 28.287		K	8.46	HI	0.8	G	9	a 19					S 2.8	m			P	0.55	BIE01
1997 10 28.324		K	8.48	HI	0.8	G	9	a 19					S 2.8	m			P	0.54	BIE01
1997 10 28.365		K	7.96	HI	0.8	G	9	a 19					S 2.8	m			P	0.37	BIE01
1997 10 28.406		K	7.85	HI	0.8	G	9	a 19					S 2.8	m			P	0.36	BIE01
1997 10 28.444		K	7.97	HI	0.8	G	9	a 19					S 2.8	m			P	0.42	BIE01
1997 10 28.493		K	7.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.39	BIE01
1997 10 28.529		K	7.24	HI	0.8	G	9	a 20					S 2.8	m			P	0.25	BIE01
1997 10 28.574		K	7.23	HI	0.8	G	9	a 19					S 2.8	m			P	0.27	BIE01
1997 10 28.611		K	7.27	HI	0.8	G	9	a 19					S 2.8	m			P	0.31	BIE01
1997 10 28.656		K	6.99	HI	0.8	G	9	a 19					S 2.8	m			P	0.27	BIE01
1997 10 28.715		K	6.88	HI	0.8	G	9	a 19					S 2.8	m			P	0.32	BIE01
1997 10 28.740		K	6.80	HI	0.8	G	9	a 19					S 2.8	m			P	0.35	BIE01

Comet C/1997 U2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 17.195		a	6.55	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1997 10 17.233		a	7.11	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1997 10 17.268		a	9.20	HI	2.0	G	18	a 25					S59.5	s			P	0.98	BIE01

Comet C/1997 U3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 20.233		a	8.61	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01
1997 10 20.243		a	8.91	HI	2.0	G	18	a 25					S59.5	s			P	0.50	BIE01
1997 10 20.259		a	8.02	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1997 10 20.269		a	8.42	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1997 10 20.285		a	8.51	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1997 10 20.296		a	8.48	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1997 10 20.312		a	8.31	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01

Comet C/1997 U4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 21.954		a	7.80	HI	2.0	G	18	a 25					S59.5	s			P	0.21	BIE01
1997 10 21.964		a	8.28	HI	2.0	G	18	a 25					S59.5	s			P	0.33	BIE01
1997 10 21.980		a	8.19	HI	2.0	G	18	a 25					S59.5	s			P	0.33	BIE01
1997 10 21.990		a	8.04	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1997 10 22.006		a	8.40	HI	2.0	G	18	a 26					S59.5	s			P	0.46	BIE01

Comet C/1997 U5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 26.862		a	8.25	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1997 10 26.872		a	8.42	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01
1997 10 26.888		a	8.40	HI	2.0	G	18	a 25					S59.5	s			P	0.39	BIE01
1997 10 26.899		a	8.33	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01

Comet C/1997 U6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 26.872	a		8.60	HI	2.0	G	18	a 25					S59.5	s			P	0.43	BIE01
1997 10 26.888	a		9.18	HI	2.0	G	18	a 25					S59.5	s			P	0.77	BIE01
1997 10 26.899	a		9.12	HI	2.0	G	18	a 25					S59.5	s			P	1.15	BIE01

Comet C/1997 U7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 10 27.673	a		8.15	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01
1997 10 27.687	a		8.42	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01
1997 10 27.704	a		7.19	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01
1997 10 27.729	a		8.23	HI	2.0	G	18	a 26					S59.5	s			P	0.38	BIE01

Comet C/1997 V2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 08.600	K		9.11	HI	0.8	G	9	a 19					S 2.8	m			P	1.12	BIE01
1997 11 08.645	K		8.23	HI	0.8	G	9	a 19					S 2.8	m			P	0.52	BIE01
1997 11 08.656	K		8.40	HI	0.8	G	9	a 19					S 2.8	m			P	0.62	BIE01
1997 11 08.667	K		8.67	HI	0.8	G	9	a 19					S 2.8	m			P	0.81	BIE01
1997 11 08.700	K		8.28	HI	0.8	G	9	a 19					S 2.8	m			P	0.59	BIE01
1997 11 08.711	K		8.10	HI	0.8	G	9	a 19					S 2.8	m			P	0.50	BIE01
1997 11 08.722	K		8.89	HI	0.8	G	9	a 19					S 2.8	m			P	1.06	BIE01
1997 11 08.733	K		8.35	HI	0.8	G	9	a 19					S 2.8	m			P	0.66	BIE01
1997 11 08.744	K		8.01	HI	0.8	G	9	a 19					S 2.8	m			P	0.48	BIE01
1997 11 08.777	K		8.32	HI	0.8	G	9	a 19					S 2.8	m			P	0.68	BIE01
1997 11 08.809	K		7.84	HI	0.8	G	9	a 19					S 2.8	m			P	0.46	BIE01
1997 11 08.882	K		7.57	HI	0.8	G	9	a 19					S 2.8	m			P	0.40	BIE01
1997 11 08.893	K		7.53	HI	0.8	G	9	a 19					S 2.8	m			P	0.40	BIE01
1997 11 08.937	K		7.72	HI	0.8	G	9	a 19					S 2.8	m			P	0.52	BIE01
1997 11 08.959	K		7.26	HI	0.8	G	9	a 19					S 2.8	m			P	0.37	BIE01
1997 11 08.980	K		7.92	HI	0.8	G	9	a 19					S 2.8	m			P	0.73	BIE01
1997 11 08.991	K		7.40	HI	0.8	G	9	a 19					S 2.8	m			P	0.47	BIE01
1997 11 09.002	K		7.37	HI	0.8	G	9	a 19					S 2.8	m			P	0.48	BIE01
1997 11 09.013	K		7.00	HI	0.8	G	9	a 19					S 2.8	m			P	0.35	BIE01
1997 11 09.024	K		7.56	HI	0.8	G	9	a 19					S 2.8	m			P	0.63	BIE01
1997 11 09.057	K		6.86	HI	0.8	G	9	a 19					S 2.8	m			P	0.39	BIE01
1997 11 09.122	K		6.94	HI	0.8	G	9	a 19					S 2.8	m			P	0.59	BIE01
1997 11 09.163	a		6.89	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01
1997 11 09.166	K		7.38	HI	0.8	G	9	a 19					S 2.8	m			P	1.15	BIE01
1997 11 09.174	a		7.19	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1997 11 09.185	a		7.11	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1997 11 09.195	a		6.98	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1997 11 09.206	a		7.15	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1997 11 09.217	a		7.32	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1997 11 09.228	a		7.25	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1997 11 09.239	a		7.78	HI	2.0	G	18	a 25					S59.5	s			P	0.22	BIE01
1997 11 09.250	a		7.89	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1997 11 09.261	a		7.73	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1997 11 09.272	a		7.83	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1997 11 09.283	a		7.73	HI	2.0	G	18	a 26					S59.5	s			P	0.29	BIE01

Comet C/1997 V3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 01.921	a		8.27	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1997 11 01.931	a		8.88	HI	2.0	G	18	a 25					S59.5	s			P	0.65	BIE01

Comet C/1997 V4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 03.602	a		8.61	HI	2.0	G	18	a 26					S59.5	s			P	0.47	BIE01
1997 11 03.622	a		8.14	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1997 11 03.645	a		8.56	HI	2.0	G	18	a 25					S59.5	s			P	0.58	BIE01
1997 11 03.660	a		9.66	HI	2.0	G	18	a 25					S59.5	s			P	1.76	BIE01
1997 11 03.673	a		9.34	HI	2.0	G	18	a 25					S59.5	s			P	2.13	BIE01

Comet C/1997 V4 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 03.692		a	9.53	HI	2.0	G	18	a 25					S59.5	s			P	2.03	BIE01

Comet C/1997 V5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 08.575		a	8.05	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1997 11 08.586		a	7.85	HI	2.0	G	18	a 26					S59.5	s			P	0.26	BIE01
1997 11 08.597		a	7.95	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1997 11 08.608		a	8.12	HI	2.0	G	18	a 25					S59.5	s			P	0.39	BIE01
1997 11 08.619		a	7.94	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1997 11 08.630		a	8.01	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1997 11 08.642		a	8.35	HI	2.0	G	18	a 25					S59.5	s			P	0.61	BIE01

Comet C/1997 V6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 08.879		a	8.43	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1997 11 08.890		a	8.91	HI	2.0	G	18	a 25					S59.5	s			P	1.02	BIE01
1997 11 08.901		a	8.86	HI	2.0	G	18	a 25					S59.5	s			P	0.70	BIE01
1997 11 08.912		a	9.19	HI	2.0	G	18	a 25					S59.5	s			P	1.00	BIE01
1997 11 08.923		a	8.55	HI	2.0	G	18	a 25					S59.5	s			P	0.60	BIE01
1997 11 08.934		a	8.36	HI	2.0	G	18	a 25					S59.5	s			P	0.54	BIE01

Comet C/1997 W1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 21.789		K	8.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.82	BIE01
1997 11 21.816		K	8.92	HI	0.8	G	9	a 19					S 2.8	m			P	0.94	BIE01
1997 11 21.848		K	8.44	HI	0.8	G	9	a 20					S 2.8	m			P	0.59	BIE01
1997 11 21.907		K	8.15	HI	0.8	G	9	a 19					S 2.8	m			P	0.48	BIE01
1997 11 21.974		K	8.24	HI	0.8	G	9	a 19					S 2.8	m			P	0.54	BIE01
1997 11 22.034		K	7.95	HI	0.8	G	9	a 19					S 2.8	m			P	0.42	BIE01
1997 11 22.076		a	6.97	HI	0.8	G	9	a 91					S 2.8	m			P	0.16	BIE01
1997 11 22.118		K	7.75	HI	0.8	G	9	a 19					S 2.8	m			P	0.38	BIE01
1997 11 22.131		a	6.72	HI	0.8	G	9	a 90					S 2.8	m			P	0.14	BIE01
1997 11 22.157		a	6.55	HI	0.8	G	9	a 90					S 2.8	m			P	0.12	BIE01
1997 11 22.175		a	6.59	HI	0.8	G	9	a 90					S 2.8	m			P	0.12	BIE01
1997 11 22.218		K	7.41	HI	0.8	G	9	a 19					S 2.8	m			P	0.30	BIE01
1997 11 22.250		a	6.40	HI	0.8	G	9	a 90					S 2.8	m			P	0.11	BIE01
1997 11 22.270		a	6.28	HI	0.8	G	9	a 90					S 2.8	m			P	0.10	BIE01
1997 11 22.287		K	7.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.28	BIE01
1997 11 22.328		a	5.99	HI	0.8	G	9	a 90					S 2.8	m			P	0.08	BIE01
1997 11 22.368		K	7.10	HI	0.8	G	9	a 19					S 2.8	m			P	0.25	BIE01
1997 11 22.405		a	5.86	HI	0.8	G	9	a 91					S 2.8	m			P	0.07	BIE01
1997 11 22.453		K	6.81	HI	0.8	G	9	a 19					S 2.8	m			P	0.21	BIE01
1997 11 22.490		a	5.48	HI	0.8	G	9	a 90					S 2.8	m			P	0.06	BIE01
1997 11 22.534		K	6.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.19	BIE01
1997 11 22.576		a	5.26	HI	0.8	G	9	a 90					S 2.8	m			P	0.05	BIE01
1997 11 22.617		K	6.12	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1997 11 22.659		a	4.93	HI	0.8	G	9	a 90					S 2.8	m			P	0.04	BIE01
1997 11 22.681		K	5.85	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1997 11 22.700		K	5.75	HI	0.8	G	9	a 19					S 2.8	m			P	0.11	BIE01
1997 11 22.742		a	4.55	HI	0.8	G	9	a 90					S 2.8	m			P	0.03	BIE01
1997 11 22.785		K	5.40	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1997 11 22.826		a	4.11	HI	0.8	G	9	a 90					S 2.8	m			P	0.03	BIE01
1997 11 22.867		K	4.88	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1997 11 22.909		a	3.60	HI	0.8	G	9	a 90					S 2.8	m			P	0.03	BIE01
1997 11 22.952		K	4.41	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1997 11 22.993		K	4.31	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1997 11 23.002		a	3.24	HI	0.8	G	9	a 91					S 2.8	m			P	0.04	BIE01
1997 11 23.034		K	4.20	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1997 11 23.062		a	3.47	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1997 11 23.075		a	3.09	HI	0.8	G	9	a 90					S 2.8	m			P	0.08	BIE01
1997 11 23.096		a	3.56	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1997 11 23.104		a	3.70	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01

Comet C/1997 W1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 23.129		a	3.88	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1997 11 23.146		a	4.05	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 11 23.200		a	5.23	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1997 11 23.205		a	5.16	HI	2.0	G	18	a 25					S59.5	s			P	0.07	BIE01
1997 11 23.239		a	6.79	HI	2.0	G	18	a 25					S59.5	s			P	0.43	BIE01

Comet C/1997 W2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 19.318		K	8.07	HI	0.8	G	9	a 19					S 2.8	m			P	0.61	BIE01
1997 11 19.360		K	8.38	HI	0.8	G	9	a 19					S 2.8	m			P	0.87	BIE01
1997 11 19.402		a	7.19	HI	0.8	G	9	a 24					S 2.8	m			P	1.30	BIE01
1997 11 19.414		K	8.61	HI	0.8	G	9	a 19					S 2.8	m			P	1.22	BIE01
1997 11 19.443		K	7.52	HI	0.8	G	9	a 19					S 2.8	m			P	0.49	BIE01
1997 11 19.485		K	7.65	HI	0.8	G	9	a 19					S 2.8	m			P	0.63	BIE01
1997 11 19.527		K	7.29	HI	0.8	G	9	a 19					S 2.8	m			P	0.54	BIE01
1997 11 19.568		K	6.75	HI	0.8	G	9	a 19					S 2.8	m			P	0.51	BIE01

Comet C/1997 W3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 11 24.775		a	7.22	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1997 11 24.811		a	7.25	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1997 11 24.872		a	7.75	HI	2.0	G	18	a 25					S59.5	s			P	0.40	BIE01
1997 11 24.894		a	8.21	HI	2.0	G	18	a 25					S59.5	s			P	0.70	BIE01

Comet C/1997 X1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 01.665		K	8.73	HI	0.8	G	9	a 19					S 2.8	m			P	0.63	BIE01
1997 12 01.759		K	8.24	HI	0.8	G	9	a 19					S 2.8	m			P	0.42	BIE01
1997 12 01.794		K	8.29	HI	0.8	G	9	a 19					S 2.8	m			P	0.46	BIE01
1997 12 01.802		K	8.44	HI	0.8	G	9	a 19					S 2.8	m			P	0.53	BIE01
1997 12 01.808		K	8.74	HI	0.8	G	9	a 19					S 2.8	m			P	0.69	BIE01
1997 12 01.818		K	8.28	HI	0.8	G	9	a 19					S 2.8	m			P	0.46	BIE01
1997 12 01.867		K	8.04	HI	0.8	G	9	a 19					S 2.8	m			P	0.39	BIE01
1997 12 01.903		K	7.97	HI	0.8	G	9	a 19					S 2.8	m			P	0.37	BIE01
1997 12 01.963		K	7.65	HI	0.8	G	9	a 19					S 2.8	m			P	0.29	BIE01
1997 12 01.980		K	7.57	HI	0.8	G	9	a 19					S 2.8	m			P	0.28	BIE01
1997 12 01.983		a	6.36	HI	0.8	G	9	a 90					S 2.8	m			P	0.18	BIE01
1997 12 02.015		K	7.73	HI	0.8	G	9	a 19					S 2.8	m			P	0.33	BIE01
1997 12 02.049		K	7.46	HI	0.8	G	9	a 19					S 2.8	m			P	0.27	BIE01
1997 12 02.114		K	7.14	HI	0.8	G	9	a 19					S 2.8	m			P	0.21	BIE01
1997 12 02.146		K	7.51	HI	0.8	G	9	a 19					S 2.8	m			P	0.32	BIE01
1997 12 02.187		a	5.99	HI	0.8	G	9	a 90					S 2.8	m			P	0.16	BIE01
1997 12 02.205		K	6.72	HI	0.8	G	9	a 19					S 2.8	m			P	0.17	BIE01
1997 12 02.218		K	6.71	HI	0.8	G	9	a 19					S 2.8	m			P	0.17	BIE01
1997 12 02.235		K	6.77	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 12 02.277		K	6.50	HI	0.8	G	9	a 19					S 2.8	m			P	0.16	BIE01
1997 12 02.299		K	6.41	HI	0.8	G	9	a 19					S 2.8	m			P	0.16	BIE01
1997 12 02.318		K	6.49	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 12 02.327		K	6.47	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 12 02.346		K	6.16	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1997 12 02.379		K	5.87	HI	0.8	G	9	a 19					S 2.8	m			P	0.13	BIE01
1997 12 02.426		K	5.74	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1997 12 02.464		K	5.37	HI	0.8	G	9	a 19					S 2.8	m			P	0.13	BIE01
1997 12 02.506		K	5.36	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 12 02.512		K	5.32	HI	0.8	G	9	a 19					S 2.8	m			P	0.18	BIE01
1997 12 02.548		K	5.15	HI	0.8	G	9	a 19					S 2.8	m			P	0.21	BIE01
1997 12 02.592		a	4.79	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 12 02.595		K	5.38	HI	0.8	G	9	a 19					S 2.8	m			P	0.40	BIE01
1997 12 02.614		a	4.85	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 12 02.642		a	4.97	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 12 02.648		a	4.95	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1997 12 02.697		a	5.72	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01

Comet C/1997 X1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 02.715	a		6.06	HI	2.0	G	18	a 26					S59.5	s			P	0.08	BIE01
1997 12 02.749	a		7.35	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1997 12 02.755	a		7.45	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01
1997 12 02.761	a		8.36	HI	2.0	G	18	a 25					S59.5	s			P	0.87	BIE01

Comet C/1997 X3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 03.019	a		7.14	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1997 12 03.038	a		7.70	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1997 12 03.061	a		7.30	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1997 12 03.100	a		7.02	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01
1997 12 03.122	a		8.38	HI	2.0	G	18	a 25					S59.5	s			P	0.65	BIE01

Comet C/1997 X4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 03.080	a		7.11	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1997 12 03.100	a		6.87	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1997 12 03.122	a		7.11	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1997 12 03.131	a		7.22	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1997 12 03.144	a		7.12	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1997 12 03.163	a		7.76	HI	2.0	G	18	a 25					S59.5	s			P	0.33	BIE01
1997 12 03.212	a		8.21	HI	2.0	G	18	a 25					S59.5	s			P	0.60	BIE01
1997 12 03.218	a		7.73	HI	2.0	G	18	a 25					S59.5	s			P	0.43	BIE01

Comet C/1997 X5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 06.372	a		7.07	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1997 12 06.394	a		7.21	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1997 12 06.413	a		7.46	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1997 12 06.436	a		7.55	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1997 12 06.455	a		7.76	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1997 12 06.477	a		8.05	HI	2.0	G	18	a 25					S59.5	s			P	0.46	BIE01

Comet C/1997 X6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 10.394	a		7.70	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1997 12 10.413	a		7.27	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1997 12 10.436	a		7.85	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01
1997 12 10.477	a		9.09	HI	2.0	G	18	a 25					S59.5	s			P	0.97	BIE01
1997 12 10.497	a		8.20	HI	2.0	G	18	a 25					S59.5	s			P	0.46	BIE01

Comet C/1997 Y1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 20.889	a		5.84	HI	2.0	G	18	a 25					S59.5	s			P	0.05	BIE01
1997 12 20.926	a		6.15	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01
1997 12 20.978	a		7.14	HI	2.0	G	18	a 26					S59.5	s			P	0.17	BIE01
1997 12 21.040	a		8.86	HI	2.0	G	18	a 25					S59.5	s			P	1.11	BIE01

Comet C/1997 Y2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 21.336	a		5.60	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1997 12 21.358	a		5.51	HI	2.0	G	18	a 25					S59.5	s			P	0.03	BIE01
1997 12 21.378	a		5.74	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1997 12 21.404	a		5.80	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1997 12 21.424	a		5.79	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1997 12 21.446	a		6.11	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01
1997 12 21.465	a		6.42	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1997 12 21.492	a		6.88	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01

Comet C/1997 Y3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1997 12 22.878	a	6.41	HI	2.0	G	18	a	25					S59.5	s			P	0.07	BIE01
1997 12 22.890	a	6.44	HI	2.0	G	18	a	25					S59.5	s			P	0.07	BIE01
1997 12 22.903	a	6.64	HI	2.0	G	18	a	25					S59.5	s			P	0.09	BIE01
1997 12 22.916	a	6.57	HI	2.0	G	18	a	25					S59.5	s			P	0.08	BIE01
1997 12 22.928	a	6.68	HI	2.0	G	18	a	25					S59.5	s			P	0.09	BIE01
1997 12 22.941	a	6.72	HI	2.0	G	18	a	25					S59.5	s			P	0.09	BIE01
1997 12 22.953	a	6.83	HI	2.0	G	18	a	25					S59.5	s			P	0.11	BIE01
1997 12 22.966	a	7.11	HI	2.0	G	18	a	25					S59.5	s			P	0.14	BIE01
1997 12 22.979	a	7.53	HI	2.0	G	18	a	25					S59.5	s			P	0.22	BIE01
1997 12 22.991	a	7.80	HI	2.0	G	18	a	25					S59.5	s			P	0.29	BIE01

Comet C/1998 A1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 01 12.286	K	8.22	HI	0.8	G	9	a	19					S 2.8	m			P	0.77	BIE01
1998 01 12.367	K	7.82	HI	0.8	G	9	a	19					S 2.8	m			P	0.54	BIE01
1998 01 12.409	K	7.61	HI	0.8	G	9	a	19					S 2.8	m			P	0.45	BIE01
1998 01 12.452	K	7.57	HI	0.8	G	9	a	19					S 2.8	m			P	0.45	BIE01
1998 01 12.496	K	7.20	HI	0.8	G	9	a	19					S 2.8	m			P	0.33	BIE01
1998 01 12.535	K	7.24	HI	0.8	G	9	a	19					S 2.8	m			P	0.35	BIE01
1998 01 12.568	K	6.87	HI	0.8	G	9	a	19					S 2.8	m			P	0.26	BIE01
1998 01 12.610	K	6.76	HI	0.8	G	9	a	19					S 2.8	m			P	0.25	BIE01
1998 01 12.652	K	6.58	HI	0.8	G	9	a	19					S 2.8	m			P	0.22	BIE01
1998 01 12.693	K	6.31	HI	0.8	G	9	a	19					S 2.8	m			P	0.18	BIE01
1998 01 12.735	K	6.07	HI	0.8	G	9	a	19					S 2.8	m			P	0.16	BIE01
1998 01 12.777	K	5.97	HI	0.8	G	9	a	19					S 2.8	m			P	0.15	BIE01
1998 01 12.861	K	5.98	HI	0.8	G	9	a	19					S 2.8	m			P	0.17	BIE01
1998 01 12.906	K	5.97	HI	0.8	G	9	a	19					S 2.8	m			P	0.19	BIE01
1998 01 12.949	a	5.09	HI	0.8	G	9	a	90					S 2.8	m			P	0.13	BIE01
1998 01 12.986	K	6.36	HI	0.8	G	9	a	19					S 2.8	m			P	0.41	BIE01

Comet C/1998 B2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 01 25.589	K	8.13	HI	0.8	G	9	a	19					S 2.8	m			P	0.74	BIE01
1998 01 25.631	K	7.78	HI	0.8	G	9	a	19					S 2.8	m			P	0.59	BIE01
1998 01 25.669	K	7.96	HI	0.8	G	9	a	19					S 2.8	m			P	0.74	BIE01
1998 01 25.712	K	8.23	HI	0.8	G	9	a	19					S 2.8	m			P	1.04	BIE01
1998 01 25.750	K	7.90	HI	0.8	G	9	a	19					S 2.8	m			P	0.85	BIE01
1998 01 25.792	K	6.66	HI	0.8	G	9	a	19					S 2.8	m			P	0.30	BIE01
1998 01 25.835	K	6.44	HI	0.8	G	9	a	19					S 2.8	m			P	0.27	BIE01
1998 01 25.989	a	7.34	HI	2.0	G	18	a	25					S59.5	s			P	0.11	BIE01
1998 01 26.010	a	6.48	HI	2.0	G	18	a	25					S59.5	s			P	0.06	BIE01
1998 01 26.031	a	5.51	HI	2.0	G	18	a	25					S59.5	s			P	0.03	BIE01
1998 01 26.048	a	5.99	HI	2.0	G	18	a	25					S59.5	s			P	0.06	BIE01

Comet C/1998 E1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 03 02.944	a	7.15	HI	0.8	G	9	a	90					S 2.8	m			P	0.42	BIE01
1998 03 02.985	K	7.60	HI	0.8	G	9	a	19					S 2.8	m			P	0.33	BIE01
1998 03 03.027	K	8.07	HI	0.8	G	9	a	19					S 2.8	m			P	0.55	BIE01
1998 03 03.068	K	7.64	HI	0.8	G	9	a	19					S 2.8	m			P	0.40	BIE01
1998 03 03.110	K	7.39	HI	0.8	G	9	a	19					S 2.8	m			P	0.35	BIE01
1998 03 03.152	K	7.03	HI	0.8	G	9	a	19					S 2.8	m			P	0.28	BIE01
1998 03 03.187	a	5.72	HI	0.8	G	9	a	90					S 2.8	m			P	0.18	BIE01
1998 03 03.235	K	6.51	HI	0.8	G	9	a	19					S 2.8	m			P	0.22	BIE01
1998 03 03.277	K	6.75	HI	0.8	G	9	a	19					S 2.8	m			P	0.30	BIE01
1998 03 03.318	K	6.71	HI	0.8	G	9	a	19					S 2.8	m			P	0.32	BIE01
1998 03 03.360	K	6.92	HI	0.8	G	9	a	19					S 2.8	m			P	0.46	BIE01

Comet C/1998 F1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 03 21.861	K	5.67	HI	0.8	G	9	a	19					S 2.8	m			P	0.53	BIE01

Comet C/1998 F1 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 03 21.882		K	5.11	HI	0.8	G	9	a 19					S 2.8 m				P	0.33	BIE01
1998 03 21.902		K	5.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.42	BIE01
1998 03 21.945		K	5.13	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1998 03 21.966		K	5.11	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1998 03 22.028		K	5.20	HI	0.8	G	9	a 20					S 2.8 m				P	0.37	BIE01
1998 03 22.049		K	4.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1998 03 22.069		K	5.02	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1998 03 22.086		a	4.84	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 03 22.103		a	4.89	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 03 22.112		K	5.06	HI	0.8	G	9	a 19					S 2.8 m				P	0.69	BIE01
1998 03 22.116		a	4.89	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 03 22.129		a	5.08	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 03 22.145		a	5.24	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 03 22.157		a	5.46	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 03 22.187		a	6.06	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1998 03 22.200		a	6.67	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01
1998 03 22.213		a	7.07	HI	2.0	G	18	a 26					S59.5 s				P	0.14	BIE01

Comet C/1998 F2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 03 27.879		a	8.12	HI	2.0	G	18	a 25					S59.5 s				P	0.34	BIE01
1998 03 27.896		a	7.88	HI	2.0	G	18	a 25					S59.5 s				P	0.27	BIE01
1998 03 27.921		a	7.94	HI	2.0	G	18	a 25					S59.5 s				P	0.29	BIE01
1998 03 27.933		a	8.26	HI	2.0	G	18	a 25					S59.5 s				P	0.39	BIE01

Comet C/1998 G2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 02.080		a	6.25	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1998 04 02.103		a	6.40	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1998 04 02.126		a	6.74	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01
1998 04 02.143		a	6.84	HI	2.0	G	18	a 25					S59.5 s				P	0.11	BIE01
1998 04 02.166		a	6.94	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1998 04 02.185		a	7.49	HI	2.0	G	18	a 25					S59.5 s				P	0.27	BIE01

Comet C/1998 G4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 10.443		K	8.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.62	BIE01
1998 04 10.484		K	7.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.54	BIE01
1998 04 10.526		K	7.25	HI	0.8	G	9	a 20					S 2.8 m				P	0.29	BIE01
1998 04 10.568		K	7.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1998 04 10.609		K	7.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.32	BIE01
1998 04 10.651		K	6.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.24	BIE01
1998 04 10.739		K	6.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.17	BIE01
1998 04 10.789		K	6.19	HI	0.8	G	9	a 19					S 2.8 m				P	0.16	BIE01
1998 04 10.838		K	5.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1998 04 10.883		K	5.43	HI	0.8	G	9	a 19					S 2.8 m				P	0.09	BIE01
1998 04 10.929		K	4.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.07	BIE01
1998 04 10.958		K	4.93	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1998 04 10.972		a	3.64	HI	0.8	G	9	a 90					S 2.8 m				P	0.04	BIE01
1998 04 11.028		K	4.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1998 04 11.070		K	4.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1998 04 11.102		a	4.98	HI	2.0	G	18	a 26					S59.5 s				P	0.01	BIE01
1998 04 11.122		a	5.09	HI	2.0	G	18	a 26					S59.5 s				P	0.01	BIE01
1998 04 11.144		a	5.30	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 04 11.163		a	5.70	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 04 11.185		a	5.65	HI	2.0	G	18	a 26					S59.5 s				P	0.11	BIE01
1998 04 11.227		a	7.31	HI	2.0	G	18	a 25					S59.5 s				P	0.17	BIE01

Comet C/1998 G5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 06.368		a	8.01	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01

Comet C/1998 G5 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 06.391	a		7.90	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01
1998 04 06.412	a		7.33	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1998 04 06.436	a		8.08	HI	2.0	G	18	a 25					S59.5	s			P	0.34	BIE01

Comet C/1998 G6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 06.811	a		7.73	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 04 06.834	a		7.93	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1998 04 06.877	a		8.64	HI	2.0	G	18	a 25					S59.5	s			P	0.62	BIE01
1998 04 06.894	a		9.17	HI	2.0	G	18	a 25					S59.5	s			P	1.12	BIE01

Comet C/1998 G7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 07.491	a		5.94	HI	2.0	G	18	a 25					S59.5	s			P	0.05	BIE01
1998 04 07.513	a		5.90	HI	2.0	G	18	a 26					S59.5	s			P	0.04	BIE01
1998 04 07.531	a		6.06	HI	2.0	G	18	a 26					S59.5	s			P	0.05	BIE01
1998 04 07.572	a		6.09	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01
1998 04 07.595	a		6.31	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1998 04 07.614	a		6.75	HI	2.0	G	18	a 26					S59.5	s			P	0.15	BIE01

Comet C/1998 G8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 09.614	a		7.20	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 04 09.631	a		7.12	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 04 09.648	a		7.14	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 04 09.705	a		7.66	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1998 04 09.727	a		7.87	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01

Comet C/1998 H2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 29.059	K		7.77	HI	0.8	G	9	a 19					S 2.8	m			P	0.36	BIE01
1998 04 29.113	K		8.15	HI	0.8	G	9	a 19					S 2.8	m			P	0.52	BIE01
1998 04 29.239	K		6.64	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 04 29.279	K		6.26	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1998 04 29.320	K		6.05	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1998 04 29.362	K		5.88	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1998 04 29.403	K		5.47	HI	0.8	G	9	a 19					S 2.8	m			P	0.06	BIE01
1998 04 29.449	K		5.25	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1998 04 29.492	K		5.11	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 04 29.530	K		5.01	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 04 29.574	K		4.98	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 04 29.614	K		4.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1998 04 29.654	K		4.55	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1998 04 29.695	K		4.45	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1998 04 29.737	K		4.18	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1998 04 29.779	K		3.91	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1998 04 29.823	K		3.88	HI	0.8	G	9	a 21					S 2.8	m			P	0.02	BIE01
1998 04 29.886	K		3.52	HI	0.8	G	9	a 19					S 2.8	m			P	0.02	BIE01
1998 04 29.903	K		3.49	HI	0.8	G	9	a 20					S 2.8	m			P	0.02	BIE01
1998 04 29.946	a		2.27	HI	0.8	G	9	a 90					S 2.8	m			P	0.01	BIE01
1998 04 29.987	K		3.19	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01
1998 04 30.028	K		3.01	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01
1998 04 30.073	K		2.86	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01
1998 04 30.113	K		2.76	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01
1998 04 30.155	K		2.63	HI	0.8	G	9	a 19					S 2.8	m			P	0.01	BIE01
1998 04 30.187	a		1.44	HI	0.8	G	9	a 90					S 2.8	m			P	0.01	BIE01
1998 04 30.464	a		2.31	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 04 30.484	a		2.31	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 04 30.506	a		2.57	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 04 30.524	a		2.92	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 04 30.546	a		3.77	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01

Comet C/1998 H2 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 30.569	a		5.05	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01

Comet C/1998 H3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 26.496	a		7.85	HI	2.0	G	18	a 25					S59.5	s			P	0.23	BIE01
1998 04 26.514	a		8.10	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 04 26.533	a		8.41	HI	2.0	G	18	a 25					S59.5	s			P	0.45	BIE01
1998 04 26.554	a		8.54	HI	2.0	G	18	a 25					S59.5	s			P	0.57	BIE01

Comet C/1998 H4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 04 27.941	a		6.66	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1998 04 27.984	a		6.69	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 04 28.007	a		6.94	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 04 28.023	a		7.03	HI	2.0	G	18	a 25					S59.5	s			P	0.16	BIE01
1998 04 28.045	a		7.15	HI	2.0	G	18	a 25					S59.5	s			P	0.21	BIE01
1998 04 28.068	a		7.43	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1998 04 28.088	a		8.34	HI	2.0	G	18	a 26					S59.5	s			P	0.90	BIE01

Comet C/1998 J2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 10.279	K		9.28	HI	0.8	G	9	a 19					S 2.8	m			P	1.20	BIE01
1998 05 10.323	K		8.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.81	BIE01
1998 05 10.364	K		8.92	HI	0.8	G	9	a 19					S 2.8	m			P	0.93	BIE01
1998 05 10.406	K		7.86	HI	0.8	G	9	a 19					S 2.8	m			P	0.37	BIE01
1998 05 10.447	K		8.06	HI	0.8	G	9	a 19					S 2.8	m			P	0.45	BIE01
1998 05 10.490	K		8.17	HI	0.8	G	9	a 19					S 2.8	m			P	0.52	BIE01
1998 05 10.529	K		7.48	HI	0.8	G	9	a 19					S 2.8	m			P	0.29	BIE01
1998 05 10.574	K		7.53	HI	0.8	G	9	a 19					S 2.8	m			P	0.32	BIE01
1998 05 10.616	K		7.20	HI	0.8	G	9	a 19					S 2.8	m			P	0.24	BIE01
1998 05 10.654	K		7.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.28	BIE01
1998 05 10.695	K		7.23	HI	0.8	G	9	a 19					S 2.8	m			P	0.27	BIE01
1998 05 10.737	K		6.99	HI	0.8	G	9	a 19					S 2.8	m			P	0.24	BIE01
1998 05 10.779	K		7.01	HI	0.8	G	9	a 19					S 2.8	m			P	0.25	BIE01
1998 05 10.823	K		6.75	HI	0.8	G	9	a 19					S 2.8	m			P	0.21	BIE01
1998 05 10.869	K		6.54	HI	0.8	G	9	a 19					S 2.8	m			P	0.19	BIE01
1998 05 10.908	K		6.25	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1998 05 10.949	a		5.11	HI	0.8	G	9	a 90					S 2.8	m			P	0.08	BIE01
1998 05 10.988	K		5.93	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 05 11.029	K		5.81	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 05 11.079	K		5.79	HI	0.8	G	9	a 19					S 2.8	m			P	0.17	BIE01
1998 05 11.114	K		5.39	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 05 11.150	K		4.82	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1998 05 11.187	a		4.04	HI	0.8	G	9	a 90					S 2.8	m			P	0.08	BIE01
1998 05 11.224	K		5.22	HI	0.8	G	9	a 19					S 2.8	m			P	0.22	BIE01
1998 05 11.247	a		4.29	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.271	a		4.21	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.283	a		4.20	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.317	a		4.40	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.328	a		4.51	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.351	a		4.69	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 11.363	a		4.77	HI	2.0	G	18	a 26					S59.5	s			P	0.02	BIE01
1998 05 11.386	a		4.79	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1998 05 11.399	a		4.92	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1998 05 11.423	a		5.20	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1998 05 11.436	a		5.29	HI	2.0	G	18	a 25					S59.5	s			P	0.04	BIE01
1998 05 11.460	a		6.06	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 05 11.477	a		6.82	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01

Comet C/1998 J3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 04.666		a	7.09	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 05 04.686		a	7.32	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 05 04.709		a	7.09	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 05 04.727		a	7.26	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1998 05 04.748		a	7.47	HI	2.0	G	18	a 25					S59.5	s			P	0.23	BIE01
1998 05 04.769		a	7.82	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01
1998 05 04.791		a	7.64	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01

Comet C/1998 J4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 06.248		a	7.04	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 05 06.269		a	7.01	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1998 05 06.291		a	6.97	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 05 06.313		a	6.98	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 05 06.337		a	7.14	HI	2.0	G	18	a 25					S59.5	s			P	0.19	BIE01
1998 05 06.354		a	7.11	HI	2.0	G	18	a 26					S59.5	s			P	0.16	BIE01
1998 05 06.377		a	8.17	HI	2.0	G	18	a 26					S59.5	s			P	0.64	BIE01

Comet C/1998 K7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 16.239		K	8.36	HI	0.8	G	9	a 20					S 2.8	m			P	0.48	BIE01
1998 05 16.281		K	7.69	HI	0.8	G	9	a 19					S 2.8	m			P	0.27	BIE01
1998 05 16.322		K	7.48	HI	0.8	G	9	a 19					S 2.8	m			P	0.23	BIE01
1998 05 16.364		K	6.86	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 05 16.406		K	6.51	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1998 05 16.447		K	6.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1998 05 16.489		K	6.28	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1998 05 16.531		K	6.13	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1998 05 16.572		K	5.83	HI	0.8	G	9	a 19					S 2.8	m			P	0.06	BIE01
1998 05 16.614		K	5.66	HI	0.8	G	9	a 19					S 2.8	m			P	0.06	BIE01
1998 05 16.656		K	5.58	HI	0.8	G	9	a 19					S 2.8	m			P	0.06	BIE01
1998 05 16.697		K	5.46	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1998 05 16.739		K	5.24	HI	0.8	G	9	a 19					S 2.8	m			P	0.05	BIE01
1998 05 16.781		K	5.19	HI	0.8	G	9	a 20					S 2.8	m			P	0.05	BIE01
1998 05 16.822		K	5.04	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 05 16.906		K	4.69	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 05 16.944		a	3.69	HI	0.8	G	9	a 90					S 2.8	m			P	0.02	BIE01
1998 05 16.989		K	4.36	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 05 17.031		K	4.09	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1998 05 17.072		K	3.86	HI	0.8	G	9	a 19					S 2.8	m			P	0.03	BIE01
1998 05 17.114		K	3.71	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 05 17.156		K	3.52	HI	0.8	G	9	a 19					S 2.8	m			P	0.04	BIE01
1998 05 17.187		a	2.46	HI	0.8	G	9	a 90					S 2.8	m			P	0.02	BIE01
1998 05 17.227		a	3.01	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.247		a	3.03	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.269		a	3.05	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.289		a	3.15	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.311		a	3.15	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.330		a	3.28	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.352		a	3.49	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.372		a	3.66	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.394		a	4.06	HI	2.0	G	18	a 25					S59.5	s			P	0.01	BIE01
1998 05 17.414		a	4.45	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1998 05 17.436		a	5.22	HI	2.0	G	18	a 25					S59.5	s			P	0.05	BIE01
1998 05 17.455		a	6.26	HI	2.0	G	18	a 25					S59.5	s			P	0.16	BIE01

Comet C/1998 K8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 19.154		K	8.95	HI	0.8	G	9	a 19					S 2.8	m			P	1.17	BIE01
1998 05 19.187		a	7.99	HI	0.8	G	9	a 90					S 2.8	m			P	0.64	BIE01
1998 05 19.240		K	7.96	HI	0.8	G	9	a 19					S 2.8	m			P	0.51	BIE01
1998 05 19.279		K	8.17	HI	0.8	G	9	a 19					S 2.8	m			P	0.65	BIE01

Comet C/1998 K8 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 19.320		K	9.00	HI	0.8	G	9	a 19					S 2.8 m				P	1.47	BIE01
1998 05 19.403		K	7.18	HI	0.8	G	9	a 20					S 2.8 m				P	0.32	BIE01
1998 05 19.445		K	8.27	HI	0.8	G	9	a 19					S 2.8 m				P	0.98	BIE01
1998 05 19.488		K	7.76	HI	0.8	G	9	a 19					S 2.8 m				P	0.69	BIE01
1998 05 19.528		K	7.06	HI	0.8	G	9	a 20					S 2.8 m				P	0.41	BIE01
1998 05 19.570		K	6.71	HI	0.8	G	9	a 19					S 2.8 m				P	0.36	BIE01
1998 05 19.615		K	6.74	HI	0.8	G	9	a 19					S 2.8 m				P	0.46	BIE01
1998 05 19.661		K	6.60	HI	0.8	G	9	a 19					S 2.8 m				P	0.47	BIE01
1998 05 19.696		K	6.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1998 05 19.710		K	7.14	HI	0.8	G	9	a 19					S 2.8 m				P	0.75	BIE01
1998 05 19.723		K	6.91	HI	0.8	G	9	a 19					S 2.8 m				P	0.63	BIE01
1998 05 19.763		a	5.58	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 05 19.812		a	5.71	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1998 05 19.832		a	5.80	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1998 05 19.869		a	5.66	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1998 05 19.904		a	6.26	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01

Comet C/1998 K9

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 27.663		K	8.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.76	BIE01
1998 05 27.742		K	8.23	HI	0.8	G	9	a 19					S 2.8 m				P	0.49	BIE01
1998 05 27.783		K	8.88	HI	0.8	G	9	a 19					S 2.8 m				P	0.93	BIE01
1998 05 27.837		K	8.07	HI	0.8	G	9	a 19					S 2.8 m				P	0.46	BIE01
1998 05 27.862		K	8.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.82	BIE01
1998 05 27.905		K	8.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.61	BIE01
1998 05 27.945		a	6.60	HI	0.8	G	9	a 90					S 2.8 m				P	0.17	BIE01
1998 05 27.986		K	7.81	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1998 05 28.028		K	7.14	HI	0.8	G	9	a 19					S 2.8 m				P	0.23	BIE01
1998 05 28.073		K	8.28	HI	0.8	G	9	a 19					S 2.8 m				P	0.67	BIE01
1998 05 28.113		K	7.75	HI	0.8	G	9	a 19					S 2.8 m				P	0.43	BIE01
1998 05 28.154		K	7.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.22	BIE01
1998 05 28.187		a	6.49	HI	0.8	G	9	a 90					S 2.8 m				P	0.19	BIE01
1998 05 28.241		K	7.03	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1998 05 28.281		K	6.70	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1998 05 28.322		K	6.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1998 05 28.362		K	6.53	HI	0.8	G	9	a 19					S 2.8 m				P	0.21	BIE01
1998 05 28.405		K	5.84	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1998 05 28.445		K	5.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1998 05 28.488		K	5.61	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1998 05 28.529		K	5.16	HI	0.8	G	9	a 20					S 2.8 m				P	0.09	BIE01
1998 05 28.570		K	5.21	HI	0.8	G	9	a 19					S 2.8 m				P	0.12	BIE01
1998 05 28.602		a	4.53	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.612		K	5.31	HI	0.8	G	9	a 20					S 2.8 m				P	0.15	BIE01
1998 05 28.624		a	4.59	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.644		a	4.44	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.657		K	5.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1998 05 28.666		a	4.45	HI	2.0	G	18	a 26					S59.5 s				P	0.01	BIE01
1998 05 28.728		a	4.51	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.752		a	4.53	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.769		a	4.54	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 05 28.791		a	4.85	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 05 28.813		a	5.33	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1998 05 28.837		a	5.89	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01

Comet C/1998 K10

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 31.115		K	9.34	HI	0.8	G	9	a 19					S 2.8 m				P	1.60	BIE01
1998 05 31.154		K	9.34	HI	0.8	G	9	a 20					S 2.8 m				P	1.60	BIE01
1998 05 31.187		a	7.97	HI	0.8	G	9	a 90					S 2.8 m				P	0.43	BIE01
1998 05 31.244		K	8.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.65	BIE01
1998 05 31.279		K	8.52	HI	0.8	G	9	a 19					S 2.8 m				P	0.81	BIE01
1998 05 31.323		K	7.72	HI	0.8	G	9	a 19					S 2.8 m				P	0.40	BIE01
1998 05 31.363		K	7.41	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01

Comet C/1998 K10 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 31.406		K	7.26	HI	0.8	G	9	a 19					S 2.8 m				P	0.27	BIE01
1998 05 31.445		K	7.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.27	BIE01
1998 05 31.488		K	6.90	HI	0.8	G	9	a 19					S 2.8 m				P	0.21	BIE01
1998 05 31.529		K	6.82	HI	0.8	G	9	a 19					S 2.8 m				P	0.20	BIE01
1998 05 31.573		K	6.48	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1998 05 31.615		K	6.32	HI	0.8	G	9	a 19					S 2.8 m				P	0.13	BIE01
1998 05 31.654		K	5.99	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1998 05 31.695		K	5.36	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1998 05 31.737		K	5.15	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1998 05 31.779		K	4.84	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1998 05 31.823		K	4.62	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1998 05 31.867		K	4.20	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.906		K	3.84	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.947		a	3.07	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1998 05 31.987		K	3.63	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 06 01.028		K	3.51	HI	0.8	G	9	a 20					S 2.8 m				P	0.02	BIE01
1998 06 01.073		K	3.00	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.113		K	2.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.154		K	2.65	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.187		a	1.93	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1998 06 01.644		a	2.34	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 06 01.667		a	2.51	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 06 01.686		a	3.36	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 06 01.708		a	3.65	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 06 01.727		a	3.51	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 06 01.747		a	3.54	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 06 01.761		a	3.68	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1998 06 01.783		a	3.57	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01

Comet C/1998 K11

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 30.706		K	7.83	HI	0.8	G	9	a 19					S 2.8 m				P	0.34	BIE01
1998 05 30.761		K	7.82	HI	0.8	G	9	a 19					S 2.8 m				P	0.35	BIE01
1998 05 30.779		K	7.65	HI	0.8	G	9	a 19					S 2.8 m				P	0.30	BIE01
1998 05 30.823		K	7.69	HI	0.8	G	9	a 19					S 2.8 m				P	0.31	BIE01
1998 05 30.867		K	7.50	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1998 05 30.906		K	7.47	HI	0.8	G	9	a 19					S 2.8 m				P	0.26	BIE01
1998 05 30.946		a	6.95	HI	0.8	G	9	a 91					S 2.8 m				P	0.15	BIE01
1998 05 30.986		K	7.24	HI	0.8	G	9	a 20					S 2.8 m				P	0.21	BIE01
1998 05 31.028		K	7.09	HI	0.8	G	9	a 19					S 2.8 m				P	0.19	BIE01
1998 05 31.115		K	6.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.15	BIE01
1998 05 31.154		K	6.77	HI	0.8	G	9	a 20					S 2.8 m				P	0.15	BIE01
1998 05 31.187		a	5.98	HI	0.8	G	9	a 90					S 2.8 m				P	0.07	BIE01
1998 05 31.244		K	6.37	HI	0.8	G	9	a 19					S 2.8 m				P	0.11	BIE01
1998 05 31.279		K	6.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.10	BIE01
1998 05 31.323		K	6.01	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1998 05 31.363		K	5.96	HI	0.8	G	9	a 19					S 2.8 m				P	0.08	BIE01
1998 05 31.406		K	5.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.07	BIE01
1998 05 31.445		K	5.56	HI	0.8	G	9	a 19					S 2.8 m				P	0.06	BIE01
1998 05 31.488		K	5.45	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1998 05 31.529		K	5.25	HI	0.8	G	9	a 19					S 2.8 m				P	0.05	BIE01
1998 05 31.573		K	4.98	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1998 05 31.615		K	4.99	HI	0.8	G	9	a 19					S 2.8 m				P	0.04	BIE01
1998 05 31.654		K	4.79	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1998 05 31.695		K	4.55	HI	0.8	G	9	a 19					S 2.8 m				P	0.03	BIE01
1998 05 31.737		K	4.39	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.779		K	4.30	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.823		K	4.13	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.867		K	3.94	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.906		K	3.80	HI	0.8	G	9	a 19					S 2.8 m				P	0.02	BIE01
1998 05 31.947		a	3.00	HI	0.8	G	9	a 90					S 2.8 m				P	0.01	BIE01
1998 05 31.987		K	3.57	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.028		K	3.37	HI	0.8	G	9	a 20					S 2.8 m				P	0.01	BIE01
1998 06 01.073		K	2.93	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01

Comet C/1998 K11 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 01.113		K	2.77	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.154		K	2.67	HI	0.8	G	9	a 19					S 2.8 m				P	0.01	BIE01
1998 06 01.843		a	2.02	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 06 01.878		a	3.28	HI	2.0	G	18	a 25					S59.5 s				P	0.01	BIE01
1998 06 01.895		a	3.75	HI	2.0	G	18	a 25					S59.5 s				P	0.02	BIE01
1998 06 01.918		a	4.02	HI	2.0	G	18	a 25					S59.5 s				P	0.03	BIE01
1998 06 01.937		a	3.88	HI	2.0	G	18	a 25					S59.5 s				P	0.04	BIE01
1998 06 01.978		a	4.01	HI	2.0	G	18	a 25					S59.5 s				P	0.10	BIE01

Comet C/1998 K12

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 20.967		a	8.34	HI	2.0	G	18	a 25					S59.5 s				P	0.38	BIE01
1998 05 21.020		a	8.34	HI	2.0	G	18	a 25					S59.5 s				P	0.47	BIE01
1998 05 21.040		a	8.47	HI	2.0	G	18	a 25					S59.5 s				P	0.58	BIE01
1998 05 21.063		a	8.31	HI	2.0	G	18	a 25					S59.5 s				P	0.57	BIE01

Comet C/1998 K13

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 21.769		a	6.97	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01
1998 05 21.791		a	6.74	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01
1998 05 21.837		a	6.81	HI	2.0	G	18	a 25					S59.5 s				P	0.09	BIE01
1998 05 21.888		a	6.58	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01
1998 05 21.936		a	6.81	HI	2.0	G	18	a 26					S59.5 s				P	0.12	BIE01
1998 05 21.998		a	7.44	HI	2.0	G	18	a 25					S59.5 s				P	0.29	BIE01

Comet C/1998 K14

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 26.425		a	6.28	HI	2.0	G	18	a 25					S59.5 s				P	0.06	BIE01
1998 05 26.441		a	6.12	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1998 05 26.465		a	6.09	HI	2.0	G	18	a 25					S59.5 s				P	0.05	BIE01
1998 05 26.486		a	6.27	HI	2.0	G	18	a 25					S59.5 s				P	0.07	BIE01
1998 05 26.509		a	6.34	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01
1998 05 26.526		a	6.32	HI	2.0	G	18	a 25					S59.5 s				P	0.08	BIE01
1998 05 26.548		a	6.76	HI	2.0	G	18	a 25					S59.5 s				P	0.14	BIE01
1998 05 26.570		a	6.97	HI	2.0	G	18	a 25					S59.5 s				P	0.19	BIE01
1998 05 26.593		a	7.77	HI	2.0	G	18	a 25					S59.5 s				P	0.46	BIE01

Comet C/1998 K15

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 28.584		a	7.76	HI	2.0	G	18	a 25					S59.5 s				P	0.20	BIE01
1998 05 28.602		a	7.65	HI	2.0	G	18	a 25					S59.5 s				P	0.19	BIE01
1998 05 28.624		a	7.42	HI	2.0	G	18	a 25					S59.5 s				P	0.16	BIE01
1998 05 28.644		a	7.00	HI	2.0	G	18	a 25					S59.5 s				P	0.11	BIE01
1998 05 28.666		a	7.14	HI	2.0	G	18	a 26					S59.5 s				P	0.13	BIE01
1998 05 28.728		a	7.51	HI	2.0	G	18	a 25					S59.5 s				P	0.16	BIE01
1998 05 28.752		a	7.05	HI	2.0	G	18	a 25					S59.5 s				P	0.16	BIE01
1998 05 28.769		a	7.24	HI	2.0	G	18	a 25					S59.5 s				P	0.20	BIE01
1998 05 28.791		a	7.61	HI	2.0	G	18	a 25					S59.5 s				P	0.30	BIE01
1998 05 28.813		a	7.65	HI	2.0	G	18	a 25					S59.5 s				P	0.34	BIE01

Comet C/1998 K16

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 29.356		a	8.10	HI	2.0	G	18	a 25					S59.5 s				P	0.28	BIE01
1998 05 29.378		a	7.81	HI	2.0	G	18	a 25					S59.5 s				P	0.23	BIE01
1998 05 29.401		a	8.28	HI	2.0	G	18	a 25					S59.5 s				P	0.38	BIE01
1998 05 29.420		a	8.21	HI	2.0	G	18	a 25					S59.5 s				P	0.38	BIE01
1998 05 29.437		a	8.72	HI	2.0	G	18	a 25					S59.5 s				P	0.66	BIE01
1998 05 29.477		a	7.89	HI	2.0	G	18	a 25					S59.5 s				P	0.37	BIE01
1998 05 29.501		a	8.70	HI	2.0	G	18	a 25					S59.5 s				P	0.88	BIE01
1998 05 29.519		a	8.43	HI	2.0	G	18	a 26					S59.5 s				P	0.73	BIE01

Comet C/1998 K16 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 29.541	a		9.27	HI	2.0	G	18	a 26					S59.5	s			P	1.63	BIE01

Comet C/1998 K17

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 05 31.040	a		8.57	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01
1998 05 31.063	a		8.59	HI	2.0	G	18	a 25					S59.5	s			P	0.37	BIE01
1998 05 31.086	a		8.38	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1998 05 31.122	a		8.74	HI	2.0	G	18	a 25					S59.5	s			P	0.47	BIE01
1998 05 31.144	a		8.25	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 05 31.167	a		8.11	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01

Comet C/1998 L1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 10.072	K		9.02	HI	0.8	G	9	a 19					S 2.8	m			P	0.76	BIE01
1998 06 10.110	a		8.15	HI	0.8	G	9	a 90					S 2.8	m			P	0.47	BIE01
1998 06 10.157	K		9.13	HI	0.8	G	9	a 19					S 2.8	m			P	0.88	BIE01
1998 06 10.187	a		7.70	HI	0.8	G	9	a 90					S 2.8	m			P	0.32	BIE01
1998 06 10.202	K		8.65	HI	0.8	G	9	a 19					S 2.8	m			P	0.57	BIE01
1998 06 10.240	K		8.95	HI	0.8	G	9	a 20					S 2.8	m			P	0.76	BIE01
1998 06 10.282	K		8.06	HI	0.8	G	9	a 19					S 2.8	m			P	0.34	BIE01
1998 06 10.322	K		8.16	HI	0.8	G	9	a 19					S 2.8	m			P	0.39	BIE01
1998 06 10.364	K		7.74	HI	0.8	G	9	a 20					S 2.8	m			P	0.26	BIE01
1998 06 10.406	K		7.82	HI	0.8	G	9	a 19					S 2.8	m			P	0.29	BIE01
1998 06 10.489	K		7.50	HI	0.8	G	9	a 19					S 2.8	m			P	0.23	BIE01
1998 06 10.531	K		7.03	HI	0.8	G	9	a 19					S 2.8	m			P	0.15	BIE01
1998 06 10.572	K		6.85	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 06 10.592	K		6.72	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1998 06 10.678	K		6.68	HI	0.8	G	9	a 19					S 2.8	m			P	0.13	BIE01
1998 06 10.720	K		6.60	HI	0.8	G	9	a 19					S 2.8	m			P	0.12	BIE01
1998 06 10.761	K		6.45	HI	0.8	G	9	a 19					S 2.8	m			P	0.11	BIE01
1998 06 10.886	K		6.14	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1998 06 10.924	K		5.95	HI	0.8	G	9	a 19					S 2.8	m			P	0.09	BIE01
1998 06 10.966	K		5.80	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1998 06 11.031	K		5.69	HI	0.8	G	9	a 19					S 2.8	m			P	0.08	BIE01
1998 06 11.072	K		5.82	HI	0.8	G	9	a 19					S 2.8	m			P	0.10	BIE01
1998 06 11.110	a		4.95	HI	0.8	G	9	a 90					S 2.8	m			P	0.06	BIE01
1998 06 11.157	K		5.89	HI	0.8	G	9	a 19					S 2.8	m			P	0.14	BIE01
1998 06 11.185	a		5.11	HI	2.0	G	18	a 25					S59.5	s			P	0.03	BIE01
1998 06 11.187	a		4.99	HI	0.8	G	9	a 90					S 2.8	m			P	0.08	BIE01
1998 06 11.202	K		6.30	HI	0.8	G	9	a 19					S 2.8	m			P	0.25	BIE01
1998 06 11.217	a		5.88	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1998 06 11.227	a		5.97	HI	2.0	G	18	a 25					S59.5	s			P	0.02	BIE01
1998 06 11.247	a		6.28	HI	2.0	G	18	a 25					S59.5	s			P	0.03	BIE01
1998 06 11.269	a		7.03	HI	2.0	G	18	a 26					S59.5	s			P	0.07	BIE01
1998 06 11.289	a		8.00	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01

Comet C/1998 L2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 03.562	a		9.27	HI	2.0	G	18	a 25					S59.5	s			P	0.85	BIE01
1998 06 03.580	a		9.76	HI	2.0	G	18	a 25					S59.5	s			P	1.41	BIE01
1998 06 03.602	a		8.84	HI	2.0	G	18	a 25					S59.5	s			P	0.65	BIE01
1998 06 03.622	a		9.18	HI	2.0	G	18	a 25					S59.5	s			P	0.96	BIE01
1998 06 03.663	a		9.04	HI	2.0	G	18	a 25					S59.5	s			P	0.99	BIE01
1998 06 03.686	a		9.16	HI	2.0	G	18	a 25					S59.5	s			P	1.18	BIE01

Comet C/1998 L3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 04.087	a		7.82	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 06 04.104	a		7.69	HI	2.0	G	18	a 25					S59.5	s			P	0.19	BIE01
1998 06 04.125	a		7.95	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 06 04.144	a		7.89	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01

Comet C/1998 L3 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 04.167	a		8.05	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 06 04.232	a		8.15	HI	2.0	G	18	a 25					S59.5	s			P	0.43	BIE01

Comet C/1998 L4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 04.978	a		8.12	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01
1998 06 04.998	a		8.08	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01
1998 06 05.020	a		7.93	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1998 06 05.063	a		7.72	HI	2.0	G	18	a 26					S59.5	s			P	0.24	BIE01
1998 06 05.086	a		8.66	HI	2.0	G	18	a 25					S59.5	s			P	0.48	BIE01
1998 06 05.103	a		8.36	HI	2.0	G	18	a 25					S59.5	s			P	0.51	BIE01
1998 06 05.144	a		8.35	HI	2.0	G	18	a 25					S59.5	s			P	0.60	BIE01

Comet C/1998 L5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 05.401	a		7.25	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1998 06 05.420	a		7.03	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 06 05.437	a		6.78	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1998 06 05.477	a		6.86	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 06 05.501	a		6.76	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1998 06 05.519	a		6.75	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 06 05.541	a		6.87	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1998 06 05.563	a		7.21	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1998 06 05.587	a		7.36	HI	2.0	G	18	a 26					S59.5	s			P	0.22	BIE01
1998 06 05.604	a		7.65	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 06 05.626	a		8.86	HI	2.0	G	18	a 25					S59.5	s			P	1.04	BIE01

Comet C/1998 L6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 05.791	a		7.47	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 06 05.813	a		7.09	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 06 05.841	a		7.59	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1998 06 05.884	a		7.98	HI	2.0	G	18	a 26					S59.5	s			P	0.28	BIE01
1998 06 05.901	a		8.40	HI	2.0	G	18	a 25					S59.5	s			P	0.44	BIE01
1998 06 05.924	a		7.50	HI	2.0	G	18	a 26					S59.5	s			P	0.20	BIE01
1998 06 05.943	a		7.44	HI	2.0	G	18	a 25					S59.5	s			P	0.21	BIE01
1998 06 05.982	a		8.03	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1998 06 05.999	a		7.82	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1998 06 06.020	a		7.83	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01

Comet C/1998 L7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 02.920	a		7.81	HI	2.0	G	18	a 25					S59.5	s			P	0.19	BIE01
1998 06 02.938	a		8.08	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 06 02.978	a		8.03	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 06 06.644	a		6.90	HI	2.0	G	18	a 25					S59.5	s			P	0.08	BIE01
1998 06 06.667	a		7.40	HI	2.0	G	18	a 26					S59.5	s			P	0.13	BIE01
1998 06 06.686	a		7.24	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1998 06 06.707	a		7.75	HI	2.0	G	18	a 25					S59.5	s			P	0.19	BIE01
1998 06 06.727	a		8.22	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01

Comet C/1998 L8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 08.334	a		8.84	HI	2.0	G	18	a 25					S59.5	s			P	0.48	BIE01
1998 06 08.352	a		9.41	HI	2.0	G	18	a 26					S59.5	s			P	0.80	BIE01
1998 06 08.397	a		8.67	HI	2.0	G	18	a 25					S59.5	s			P	0.44	BIE01
1998 06 08.416	a		8.60	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1998 06 08.436	a		8.52	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1998 06 08.477	a		8.78	HI	2.0	G	18	a 25					S59.5	s			P	0.58	BIE01

Comet C/1998 L9

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 12.247		a	7.47	HI	2.0G	18	a	25					S59.5	s			P	0.14	BIE01
1998 06 12.269		a	7.56	HI	2.0G	18	a	25					S59.5	s			P	0.16	BIE01
1998 06 12.289		a	7.42	HI	2.0G	18	a	25					S59.5	s			P	0.14	BIE01
1998 06 12.311		a	7.27	HI	2.0G	18	a	25					S59.5	s			P	0.13	BIE01
1998 06 12.330		a	7.55	HI	2.0G	18	a	25					S59.5	s			P	0.18	BIE01
1998 06 12.352		a	7.56	HI	2.0G	18	a	25					S59.5	s			P	0.19	BIE01
1998 06 12.372		a	7.58	HI	2.0G	18	a	25					S59.5	s			P	0.20	BIE01
1998 06 12.394		a	8.02	HI	2.0G	18	a	25					S59.5	s			P	0.33	BIE01
1998 06 12.418		a	8.31	HI	2.0G	18	a	26					S59.5	s			P	0.46	BIE01

Comet C/1998 M7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 16.406		K	7.95	HI	0.8G	9	a	19					S 2.8	m			P	0.51	BIE01
1998 06 16.447		K	7.95	HI	0.8G	9	a	19					S 2.8	m			P	0.53	BIE01
1998 06 16.489		K	7.93	HI	0.8G	9	a	19					S 2.8	m			P	0.54	BIE01
1998 06 16.531		K	7.55	HI	0.8G	9	a	19					S 2.8	m			P	0.40	BIE01
1998 06 16.614		K	7.74	HI	0.8G	9	a	19					S 2.8	m			P	0.53	BIE01
1998 06 16.697		K	6.55	HI	0.8G	9	a	19					S 2.8	m			P	0.21	BIE01
1998 06 16.815		a	6.30	HI	2.0G	18	a	25					S59.5	s			P	0.03	BIE01
1998 06 16.856		a	6.89	HI	2.0G	18	a	25					S59.5	s			P	0.05	BIE01
1998 06 16.891		a	6.22	HI	2.0G	18	a	25					S59.5	s			P	0.03	BIE01
1998 06 16.967		a	6.88	HI	2.0G	18	a	25					S59.5	s			P	0.07	BIE01
1998 06 16.996		a	6.75	HI	2.0G	18	a	25					S59.5	s			P	0.23	BIE01
1998 06 17.006		a	6.81	HI	2.0G	18	a	25					S59.5	s			P	0.26	BIE01
1998 06 17.017		a	7.37	HI	2.0G	18	a	25					S59.5	s			P	0.12	BIE01

Comet C/1998 M8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 19.414		a	8.78	HI	2.0G	18	a	25					S59.5	s			P	0.45	BIE01
1998 06 19.427		a	8.75	HI	2.0G	18	a	25					S59.5	s			P	0.46	BIE01
1998 06 19.445		a	8.85	HI	2.0G	18	a	25					S59.5	s			P	0.51	BIE01
1998 06 19.455		a	9.74	HI	2.0G	18	a	25					S59.5	s			P	1.16	BIE01
1998 06 19.486		a	8.49	HI	2.0G	18	a	25					S59.5	s			P	0.38	BIE01
1998 06 19.499		a	9.08	HI	2.0G	18	a	25					S59.5	s			P	0.67	BIE01
1998 06 19.511		a	8.77	HI	2.0G	18	a	25					S59.5	s			P	0.51	BIE01
1998 06 19.540		a	8.35	HI	2.0G	18	a	25					S59.5	s			P	0.37	BIE01
1998 06 19.556		a	9.15	HI	2.0G	18	a	25					S59.5	s			P	0.81	BIE01

Comet C/1998 M9

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 21.622		a	8.04	HI	2.0G	18	a	26					S59.5	s			P	0.19	BIE01
1998 06 21.636		a	7.36	HI	2.0G	18	a	25					S59.5	s			P	0.11	BIE01
1998 06 21.651		a	7.26	HI	2.0G	18	a	25					S59.5	s			P	0.11	BIE01
1998 06 21.664		a	6.96	HI	2.0G	18	a	25					S59.5	s			P	0.09	BIE01
1998 06 21.677		a	6.78	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.691		a	6.78	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.705		a	6.82	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.719		a	6.76	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.734		a	6.75	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.747		a	6.73	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.761		a	6.73	HI	2.0G	18	a	25					S59.5	s			P	0.08	BIE01
1998 06 21.775		a	6.84	HI	2.0G	18	a	25					S59.5	s			P	0.09	BIE01
1998 06 21.789		a	6.96	HI	2.0G	18	a	25					S59.5	s			P	0.11	BIE01
1998 06 21.819		a	7.12	HI	2.0G	18	a	25					S59.5	s			P	0.14	BIE01
1998 06 21.832		a	7.40	HI	2.0G	18	a	25					S59.5	s			P	0.18	BIE01

Comet C/1998 M10

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 23.644		a	8.43	HI	2.0G	18	a	25					S59.5	s			P	0.34	BIE01
1998 06 23.666		a	8.46	HI	2.0G	18	a	25					S59.5	s			P	0.37	BIE01
1998 06 23.686		a	8.20	HI	2.0G	18	a	25					S59.5	s			P	0.29	BIE01

Comet C/1998 M10 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 06 23.708	a		8.36	HI	2.0	G	18	a 25					S59.5	s			P	0.35	BIE01
1998 06 23.727	a		8.10	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01
1998 06 23.769	a		8.39	HI	2.0	G	18	a 25					S59.5	s			P	0.40	BIE01

Comet C/1998 U6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 10 29.288	a		9.13	HI	2.0	G	18	a 26					S59.5	s			P	0.64	BIE01
1998 10 29.310	a		8.60	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1998 10 29.329	a		9.38	HI	2.0	G	18	a 25					S59.5	s			P	0.91	BIE01
1998 10 29.346	a		8.59	HI	2.0	G	18	a 25					S59.5	s			P	0.48	BIE01

Comet C/1998 V1

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 04.188	K		8.05	HI	0.8	G	9	a 19					S	2.8	m		P	0.49	BIE01
1998 11 04.229	K		7.87	HI	0.8	G	9	a 19					S	2.8	m		P	0.44	BIE01
1998 11 04.269	a		7.74	HI	0.8	G	9	a 90					S	2.8	m		P	0.81	BIE01
1998 11 04.314	K		8.36	HI	0.8	G	9	a 19					S	2.8	m		P	0.81	BIE01
1998 11 04.354	K		7.62	HI	0.8	G	9	a 19					S	2.8	m		P	0.44	BIE01
1998 11 04.396	K		8.21	HI	0.8	G	9	a 19					S	2.8	m		P	0.84	BIE01
1998 11 04.438	a		9.44	HI	0.8	G	9	a 90					S	2.8	m		P	3.96	BIE01
1998 11 04.479	K		7.17	HI	0.8	G	9	a 19					S	2.8	m		P	0.46	BIE01
1998 11 04.560	a		6.97	HI	2.0	G	18	a 25					S59.5	s			P	0.06	BIE01
1998 11 04.579	a		6.23	HI	2.0	G	18	a 25					S59.5	s			P	0.07	BIE01
1998 11 04.596	a		7.19	HI	2.0	G	18	a 25					S59.5	s			P	0.09	BIE01
1998 11 04.623	a		6.46	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 11 04.663	a		7.57	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1998 11 04.679	a		8.49	HI	2.0	G	18	a 25					S59.5	s			P	0.52	BIE01

Comet C/1998 V2

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 07.221	a		8.34	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1998 11 07.246	a		8.40	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1998 11 07.263	a		9.07	HI	2.0	G	18	a 25					S59.5	s			P	0.86	BIE01
1998 11 07.310	a		7.40	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 11 07.329	a		7.40	HI	2.0	G	18	a 25					S59.5	s			P	0.16	BIE01
1998 11 07.346	a		7.27	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 11 07.371	a		7.69	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1998 11 07.413	a		7.52	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01

Comet C/1998 V3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 07.310	a		8.22	HI	2.0	G	18	a 25					S59.5	s			P	0.33	BIE01
1998 11 07.329	a		8.73	HI	2.0	G	18	a 25					S59.5	s			P	0.56	BIE01
1998 11 07.346	a		7.98	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 11 07.371	a		8.78	HI	2.0	G	18	a 25					S59.5	s			P	0.73	BIE01
1998 11 07.388	a		7.97	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01

Comet C/1998 V4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 09.121	a		8.24	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 11 09.138	a		8.07	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01
1998 11 09.163	a		7.84	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 11 09.179	a		7.98	HI	2.0	G	18	a 25					S59.5	s			P	0.31	BIE01
1998 11 09.204	a		8.34	HI	2.0	G	18	a 25					S59.5	s			P	0.49	BIE01
1998 11 09.221	a		8.57	HI	2.0	G	18	a 25					S59.5	s			P	0.68	BIE01

Comet C/1998 V5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 02.596	a		7.36	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01

Comet C/1998 V5 [cont.]

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 02.643	a		7.29	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 11 02.663	a		6.66	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 11 02.679	a		7.28	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1998 11 02.709	a		7.71	HI	2.0	G	18	a 25					S59.5	s			P	0.69	BIE01
1998 11 02.723	a		7.49	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01

Comet C/1998 V6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 02.643	a		7.37	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 11 02.663	a		6.86	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 11 02.679	a		7.32	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 11 02.709	a		8.00	HI	2.0	G	18	a 25					S59.5	s			P	0.70	BIE01
1998 11 02.723	a		7.88	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01

Comet C/1998 W4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 24.188	a		8.51	HI	2.0	G	18	a 25					S59.5	s			P	0.44	BIE01
1998 11 24.204	a		8.01	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1998 11 24.229	a		7.48	HI	2.0	G	18	a 25					S59.5	s			P	0.21	BIE01
1998 11 24.247	a		7.97	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1998 11 24.272	a		7.90	HI	2.0	G	18	a 25					S59.5	s			P	0.40	BIE01
1998 11 24.291	a		8.21	HI	2.0	G	18	a 26					S59.5	s			P	0.59	BIE01

Comet C/1998 W5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 24.692	a		7.65	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 11 24.718	a		7.75	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1998 11 24.737	a		7.64	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1998 11 24.762	a		7.88	HI	2.0	G	18	a 25					S59.5	s			P	0.34	BIE01
1998 11 24.819	a		7.62	HI	2.0	G	18	a 25					S59.5	s			P	0.34	BIE01

Comet C/1998 W6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 11 25.579	a		6.53	HI	2.0	G	18	a 26					S59.5	s			P	0.07	BIE01
1998 11 25.604	a		6.67	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 11 25.621	a		6.59	HI	2.0	G	18	a 25					S59.5	s			P	0.10	BIE01
1998 11 25.646	a		6.75	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 11 25.663	a		7.01	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1998 11 25.688	a		7.00	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 11 25.704	a		7.49	HI	2.0	G	18	a 25					S59.5	s			P	0.35	BIE01
1998 11 25.729	a		7.65	HI	2.0	G	18	a 25					S59.5	s			P	0.50	BIE01

Comet C/1998 X3

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 05.564	a		7.56	HI	2.0	G	18	a 25					S59.5	s			P	0.19	BIE01
1998 12 05.579	a		7.92	HI	2.0	G	18	a 25					S59.5	s			P	0.30	BIE01
1998 12 05.604	a		7.90	HI	2.0	G	18	a 25					S59.5	s			P	0.32	BIE01
1998 12 05.646	a		7.79	HI	2.0	G	18	a 25					S59.5	s			P	0.35	BIE01

Comet C/1998 X4

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 07.854	a		8.27	HI	2.0	G	18	a 25					S59.5	s			P	0.36	BIE01
1998 12 07.896	a		8.21	HI	2.0	G	18	a 26					S59.5	s			P	0.38	BIE01
1998 12 07.913	a		8.49	HI	2.0	G	18	a 25					S59.5	s			P	0.53	BIE01
1998 12 07.938	a		8.85	HI	2.0	G	18	a 25					S59.5	s			P	0.81	BIE01

Comet C/1998 X5

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 09.188	a		8.37	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1998 12 09.204	a		8.22	HI	2.0	G	18	a 25					S59.5	s			P	0.38	BIE01
1998 12 09.246	a		8.02	HI	2.0	G	18	a 25					S59.5	s			P	0.34	BIE01
1998 12 09.271	a		8.97	HI	2.0	G	18	a 25					S59.5	s			P	1.27	BIE01

Comet C/1998 X6

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 09.704	a		7.97	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01
1998 12 09.729	a		7.74	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1998 12 09.746	a		7.74	HI	2.0	G	18	a 25					S59.5	s			P	0.25	BIE01
1998 12 09.771	a		7.43	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 12 09.788	a		8.19	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1998 12 09.814	a		8.41	HI	2.0	G	18	a 26					S59.5	s			P	0.53	BIE01
1998 12 09.829	a		8.04	HI	2.0	G	18	a 25					S59.5	s			P	0.41	BIE01
1998 12 09.854	a		8.71	HI	2.0	G	18	a 25					S59.5	s			P	0.83	BIE01

Comet C/1998 X7

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 09.896	a		7.12	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 12 09.913	a		6.99	HI	2.0	G	18	a 25					S59.5	s			P	0.12	BIE01
1998 12 09.938	a		6.82	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 12 09.979	a		6.97	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 12 09.996	a		7.20	HI	2.0	G	18	a 25					S59.5	s			P	0.17	BIE01
1998 12 10.021	a		7.19	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1998 12 10.038	a		7.64	HI	2.0	G	18	a 25					S59.5	s			P	0.29	BIE01

Comet C/1998 X8

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 11.896	a		7.20	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 12 11.913	a		7.25	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 12 11.938	a		7.30	HI	2.0	G	18	a 25					S59.5	s			P	0.16	BIE01
1998 12 11.979	a		7.05	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 12 11.996	a		7.12	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 12 12.021	a		7.32	HI	2.0	G	18	a 25					S59.5	s			P	0.20	BIE01
1998 12 12.038	a		7.36	HI	2.0	G	18	a 25					S59.5	s			P	0.22	BIE01
1998 12 12.064	a		7.47	HI	2.0	G	18	a 25					S59.5	s			P	0.26	BIE01
1998 12 12.079	a		8.19	HI	2.0	G	18	a 25					S59.5	s			P	0.54	BIE01

Comet C/1998 X9

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 14.246	a		7.15	HI	2.0	G	18	a 25					S59.5	s			P	0.15	BIE01
1998 12 14.271	a		7.02	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 12 14.288	a		6.81	HI	2.0	G	18	a 25					S59.5	s			P	0.11	BIE01
1998 12 14.314	a		6.99	HI	2.0	G	18	a 25					S59.5	s			P	0.13	BIE01
1998 12 14.329	a		7.07	HI	2.0	G	18	a 25					S59.5	s			P	0.14	BIE01
1998 12 14.354	a		7.30	HI	2.0	G	18	a 25					S59.5	s			P	0.18	BIE01
1998 12 14.371	a		7.55	HI	2.0	G	18	a 25					S59.5	s			P	0.24	BIE01
1998 12 14.396	a		7.63	HI	2.0	G	18	a 25					S59.5	s			P	0.28	BIE01

Comet C/1998 X10

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 14.288	a		8.47	HI	2.0	G	18	a 25					S59.5	s			P	0.46	BIE01
1998 12 14.314	a		8.60	HI	2.0	G	18	a 25					S59.5	s			P	0.54	BIE01
1998 12 14.329	a		8.29	HI	2.0	G	18	a 25					S59.5	s			P	0.42	BIE01
1998 12 14.354	a		8.30	HI	2.0	G	18	a 25					S59.5	s			P	0.44	BIE01
1998 12 14.371	a		9.54	HI	2.0	G	18	a 25					S59.5	s			P	1.44	BIE01

Comet C/1998 X11

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Unc	OBS.
1998 12 08.795	a		8.06	HI	2.0	G	18	a 26					S59.5	s			P	0.30	BIE01
1998 12 08.829	a		7.80	HI	2.0	G	18	a 25					S59.5	s			P	0.27	BIE01
1998 12 08.854	a		9.18	HI	2.0	G	18	a 25					S59.5	s			P	0.96	BIE01
1998 12 08.871	a		7.49	HI	2.0	G	18	a 25					S59.5	s			P	0.80	BIE01

Φ Φ Φ

Tabulation of Comet Observations

New additions to magnitude-method key: F = total magnitude obtained using 'Meade CCD interference filter CM-500 Visible' (infrared blocking filter), supplied with their Pictor 416 CCD camera; and f = 'nuclear' magnitude obtained using same 'Meade CCD interference filter CM-500 Visible'.

New addition to comparison-star-magnitude reference key: OB = magnitudes for faint cluster stars from S. C. Odewahn, C. Bryja, and R. M. Humphreys (1992), *PASP* **104**, 553 [used by the Spacewatch program, under Jim Scotti, beginning 1999 Sept. 29, replacing reference FA].

This issue is the first to contain tabulated CCD observations of comets in the new, extended format (with information in columns 81-129 of the original records), as outlined in the October 2001 and January 2002 issues (and at the *ICQ* website), beginning on page 208. New codes for CCD cameras, chips, and photometric software are given below. Note that code 'G70' for photometric software was deleted, because this is a source only for comparison-star magnitudes and does not have a program to measure comet magnitudes. New codes will be issued as data are submitted that require new codes, and contributors of data that need new codes for CCD cameras, chips, and/or photometric software should provide as much information as possible (including full names for each item; spectral-response information for chips; and contact information or URLs describing the software). Note that the *ICQ* website keeps updated lists of all of the keys to abbreviations used in the tabulation.

New additions to the new-format codes $\Longrightarrow$ *CCD cameras:* MCV = Mutoh CV-16II; PIC = Pictor 416. *CCD camera chips:* K16 = KAF-1600; K4E = KAF-0400E; K41 = KAF-0401E; T24 = TC-241 CCD chip (ultraviolet-enhanced; used in SBIG ST-6V CCD camera). *Computer software used for photometric reduction of CCD images:* A32 = Astrometrica 3.25; AfP = ASTROART for Photometry; GAI = GAIA software ver. 2.5-3 (Central Laboratory of the Research Councils, U.K.; authors Peter W. Draper and Norman Gray; e-mail gaia@star.rl.ac.uk).

As many CCD observers have not yet begun contributing extra information beyond the old format, we have broken the CCD tabulated data in this issue into two sections — for those contributed in the new and old formats. All observers are encouraged to begin immediately sending CCD data in the full (new) form, as this extra information makes the data much more useful and valuable to researchers. Also, note that, to avoid displaying the CCD data in 'landscape mode' (thus retaining the 'portrait mode' normally used in the *ICQ*), we have eliminated a few less-urgent data columns from the original records: whether or not the comparison stars were in the same or next field as the comet, or distance from them to comet, and integration time of comparison-star field if outside comet field; camera name; number of images taken of comet on same night; magnitude of comparison star closest in brightness to comet; and pixel size and shape.

Corrigendum. In the January 2002 issue, page 9, line 6, *for* P/2002 Q6 (Petriew) *read* P/2002 Q2 (Petriew)

◇ ◇ ◇

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

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

◇ *Comet 7P/Pons-Winnecke* $\Longrightarrow$ 2002 May 12.71: w/ infrared-block filter; GUIDE 7.0 software used for comp.-star mags [TSU02].

◇ *Comet 11P/2001 X3 (Tempel-Swift-LINEAR)* $\Longrightarrow$ 2002 Jan. 6.46: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet 15P/Finlay* $\Longrightarrow$ 2002 Feb. 12.40, 18.40, and Mar. 4.40: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet 16P/Brooks* $\Longrightarrow$ 2002 Jan. 6.56, 11.50, and Feb. 1.51: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet 19P/Borrelly* $\Longrightarrow$ 2002 Jan. 6.75: jet 1′.2 long in p.a. 143° [TSU02]. Jan. 6.75 and Feb. 18.58: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 9.61, 13.55, Apr. 4.50, May 12.52, and June 2.53: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 12.52: w/ infrared-block filter [TSU02]. May 12.54: another tail 1′.2 long in p.a. 122° [NAK01].

◇ *Comet 22P/Kopff* ⟹ 2002 June 2.51 and 3.48: GUIDE 7.0 software used for comp.-star mags [TSU02].

◇ *Comet 28P/Neujmin* ⟹ 2002 May 12.65 and June 1.56: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet 29P/Schwassmann-Wachmann* ⟹ 2002 May 20.77: GUIDE 7.0 software used for comp.-star mags [TSU02]. June 9.75: "a bright outburst; the strong cond. (looks like a planetary nebula!) and the distinct inner coma of dia. 0′.4 suggest that this outburst is very new" [NAK01]. June 22.75: inner-most coma extends in p.a. 110°, then strongly curves clockwise [NAK01].

◇ *Comet 46P/Wirtanen* ⟹ 2002 July 5.91: faint object suspected; however, there was no time during pre-dawn to check for motion [PEA].

◇ *Comet 51P/Harrington* ⟹ 2002 Jan. 6.61 and 11.51: tab. mag is combined mag of components A and D; GUIDE 6.0 software used for comp.-star mags [TSU02]. Jan. 11.53 and Feb. 7.55: tab. m_1 is combined mag of components A and D; tab. m_2 for each component measured within 10″ × 10″ [NAK01].

◇ *Comet 65P/Gunn* ⟹ 2002 Mar. 9.59, 13.54, Apr. 1.54, May 12.51, and June 2.50: GUIDE 7.0 software used for comp.-star mags [TSU02]. Apr. 29.83: for this and many other NAV01 data, Meade LX200 (12-inch-aperture T); obs. w/ Montse Campas at Observatorio Montcabrer, Cabrils, Spain (MPC obs. code 213) [NAV01]. May 2.98: comet formed a triangle with two bright stars [RES]. May 3.94: second confirming detection at May 3.98; reality checked via Digital Sky Survey [HOR02]. May 6.89: second confirming detection at May 6.98; reality checked via DSS [HOR02]. May 9.87: second confirming detection at May 9.97; reality checked via DSS [HOR02]. May 12.51: w/ infrared-block filter [TSU02]. June 12.88: reality checked via DSS [HOR02].

◇ *Comet 77P/Longmore* ⟹ 2002 Jan. 11.60: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 9.56, 13.54, Apr. 1.53, May 12.50, and June 3.48: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 12.50: w/ infrared-block filter [TSU02].

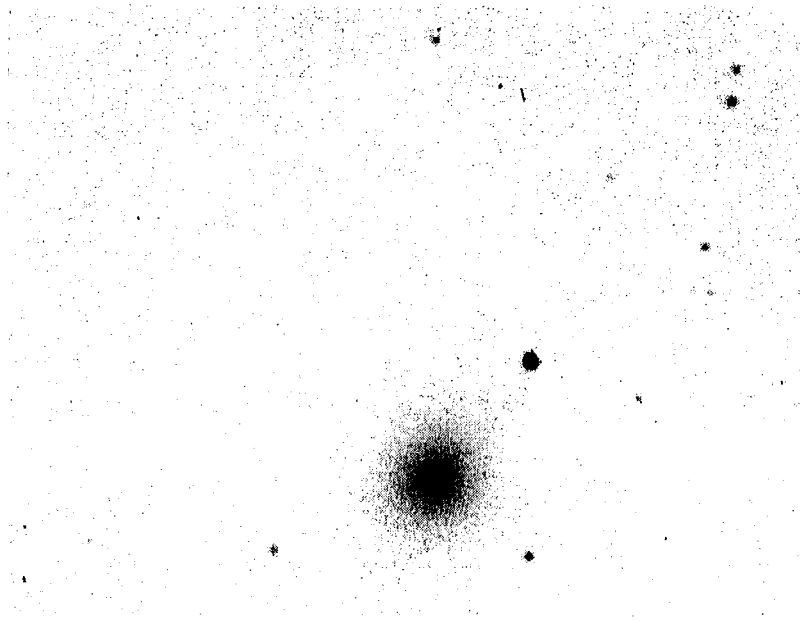
◇ *Comet 96P/Machholz* ⟹ 2002 Jan. 25.86: anti-tail 0′.8 long in p.a. 155° [KAD02]. Jan. 27.86: anti-tail 0′.9 long in p.a. 157° [KAD02]. Jan. 30.86: anti-tail 1′.0 long in p.a. 150° [KAD02].

◇ *Comet 116P/Wild* ⟹ 2002 Feb. 18.49: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet 152P/2001 Y1 (Helin-Lawrence)* ⟹ 2002 Jan. 11.2: 300-sec unfiltered CCD exposures w/ 60-cm D show a diffuse, 8″ coma and a faint, narrow, 13″ tail in p.a. 283° [SAR02].

◇ *Comet 153P/2002 C1 (Ikeya-Zhang)* ⟹ 2002 Feb. 3.74: comet faint but visible w/ direct vision; coma spherical, but surprisingly condensed [BEG01]. Feb. 5.75: a vivid blue coma extends in p.a. 60° [PRI04]. Feb. 5.84: "two narrow, extremely faint ion tails both traced to 4′ in p.a. 82° and 103°; coma fairly condensed, w/ a hint at times of a stellar central cond. w/ averted vision; coma dia. obtained using the crosshair-drift method" [BEG01]. *[cont. on page 131]*

◇ ◇ ◇

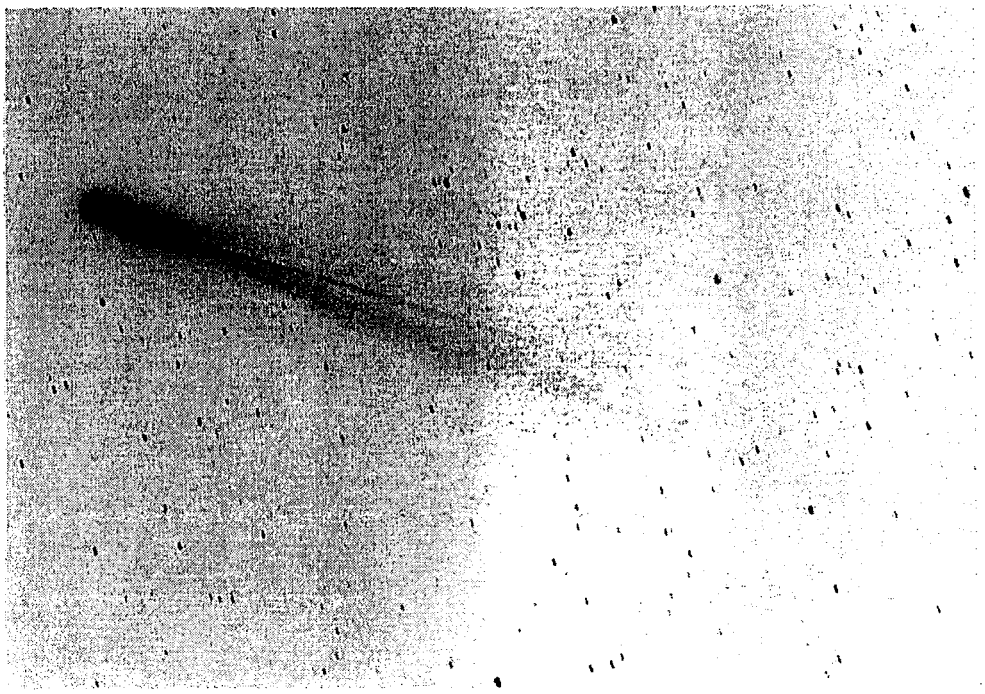


CCD image of comet 153P, from two 15-sec exposures taken by Michael Mattiazzo on 2002 Feb. 4.47 with a Celestron C11 reflector + MX7c camera (field-of-view 12′ × 9′).

[text cont. from page 131]

Feb. 7.75: w/ 15-cm L $f/7$ (50×), coma well condensed and slightly elliptical; very faint, thin gas tail suspected in p.a. 85°, w/ the length indeterminate > 3′ from the coma; slightly hazy conditions; obs. completed a few min before cloud came in [BEG01]. Feb. 11.74: w/ 15-cm L $f/7$ (50×), the coma has a large, faint, outer halo, w/ a bright, highly condensed central region; at the center of this is a stellar central cond. of mag 10.5 (equal in mag to TYC 5265-282-1 in the same field); ion tail very thin and faint, traced to 6′ in p.a. 80° [BEG01]. Feb. 11.74: central cond. quite stellar ($m_2 = 10.5$); coma shows signs of 'flaring' in two opposite directions at p.a. ≈ 60° and 240° [PRI04]. Feb. 11.74: "looks like a small, bright globular cluster; no tail visible" [COO02]. Feb. 12.74: coma brightness equal to that of HIP 2283, which was very close in apparent position, making comparison difficult; "in 15-cm, tail 14′ in p.a. 79°; central cond. is a bright spherical 'knot' w/ little sign of the stellar point seen the previous evening" [BEG01]. Feb. 13.73: possible anti-tail extending 15′ at p.a. 224°; stellar central cond. of mag 10.3 [PRI04]. Feb. 13.75: conditions very clear and dark [BEG01]. Feb. 15.72 and 16.73: nuclear cond. of mag 7.8; moonlight [CSU]. Feb. 15.74: at 55×, coma appears extended in two directions (2′ in p.a. 233°, 2′ in p.a. 202°); stellar central cond. of mag 10.3; HIP comparison stars); m_1 comparison stars HIP 2408 (mag 7.40), HIP 2431 (6.84), HIP 2608 (8.53) [PRI04]. Feb. 15.74: "comet has brightened significantly since the last obs. two days ago; coma highly condensed" [BEG01]. Feb. 19.72: twilight [PRI04]. Feb. 20.72: brief obs. due to cloud; twilight [PRI04]. Feb. 22.73: no tail visible because of haze; comet seen for ~ 10 min between clouds [BEG01]. Feb. 25.72: brief obs. in difficult conditions; comet at 18° alt. in twilight; moonlight interference and cloud [PRI04]. Feb. 27.72: coma appeared as a compact spherical cloud w/ a prominent stellar central cond.; tail visible as a very thin, faint streamer despite the full moon [BEG01]. Feb. 28.72: coma extremely condensed (a bright compact cloud w/ a prominent stellar central cond.); tail easily observed as a thin, straight feature w/ a fairly high surface brightness through binoculars; position of the comet carefully noted relative to the tree line through binoculars, and then seen via naked eye ($m_1 = 5.0$, DC = 9), ~ 15 min before moonrise [BEG01]. Feb. 28.72: w/ 25-cm L $f/4.5$ (30×), intense coma activity; tail extended 14′ in p.a. 82°; central cond. of mag ~ 8.7 [PRI04].

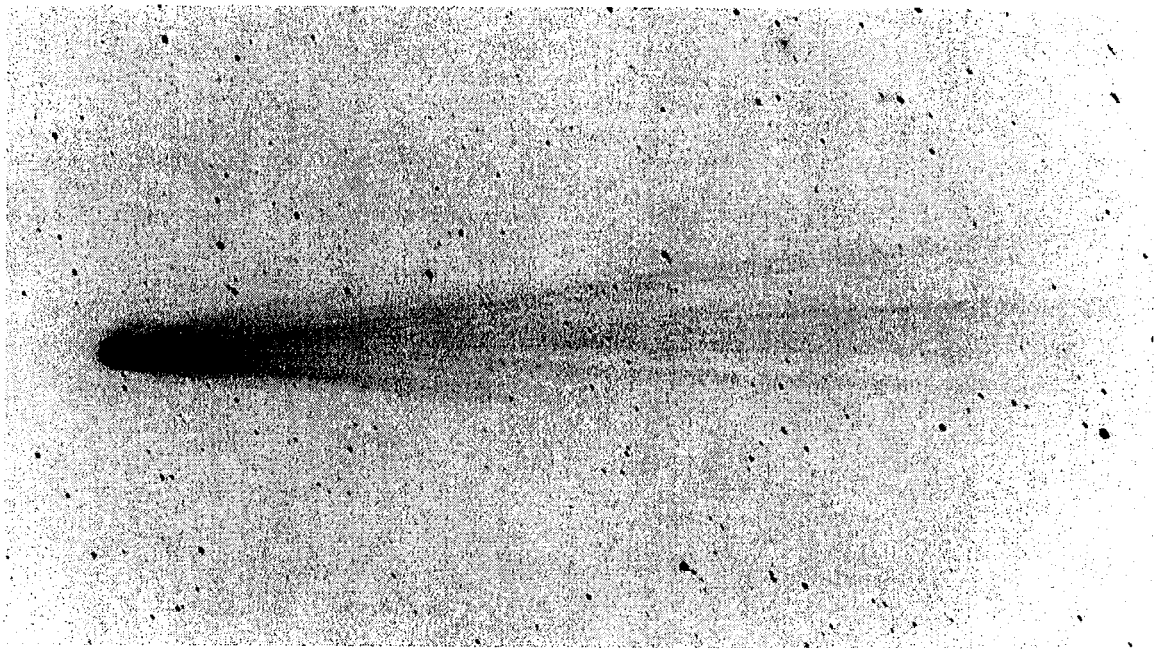
◇ ◇ ◇



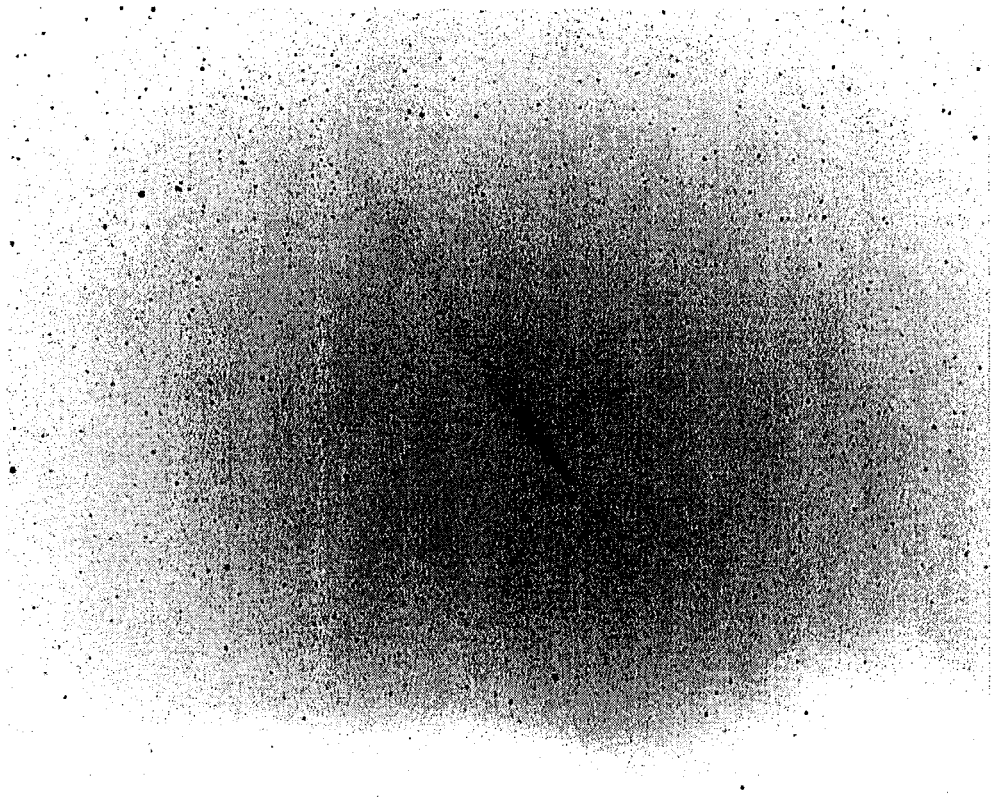
Photograph of comet 153P/Ikeya-Zhang taken by Michael Jäger (near Vienna, Austria) on 2002 Mar. 8.77 with his Deltagraph; 12-min exposure on Ektrachrome 100 film.

◇ ◇ ◇

Mar. 1.72: w/ 25-cm L (60×), central cond. extends 10′ in p.a. 75°, 5′ wide, creating a 'mushroom' effect w/ the coma [PRI04]. Mar. 2.72: w/ 25-cm L (55×), blue-white ion tail extending 40′ in p.a. 70° [PRI04]. Mar. 2.73: sharply pronounced 1°.6 tail in p.a. 76°; rather diffuse 45′ tail in p.a. 82°; very condensed bright coma; "w/ 15-cm L (55×), tail bifurcation is distinct, while the coma has a bright stellar core, surrounded by a small bright diffuse cloud, which is in turn surrounded by a larger, fainter, outer coma" [BEG01]. Mar. 4.43 and 6.43: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 4.76: nuclear cond. of mag 6.0 [CSU]. Mar. 6.43: another bifurcated tail (> 18′) in p.a. 90°, and a sharp tail 5′ long in p.a. 66° [EZA]. Mar. 7.77, Apr. 22.05, May 6.83, and 20.86: poor sky [BAR]. Mar. 8.41: has a bright stellar nucleus; coma extremely small; has a long linear tail like C/1996 B2 — not fan-shaped (obs. to supplement tab. data in April 2002 *ICQ*) [YOS04]. Mar. 8.77: nuclear cond. of mag ~ 5.5; tail length given as 24° (see notes on this for



More photographs of comet 153P by Michael Jäger on Ektachrome 100 film. Above: 10-min exposure on 2002 Mar. 10.77 with his Deltagraph. Below: combination of three 10-min exposures with a 135-mm f/3.3 telephoto lens.



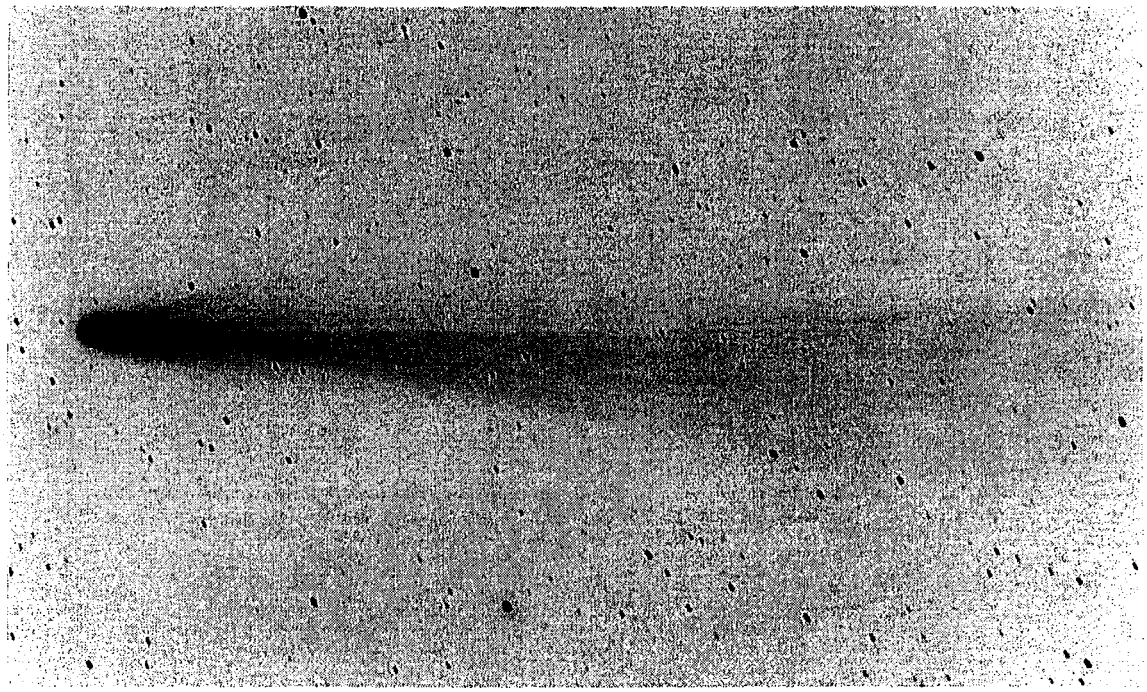
◇ ◇ ◇

[text cont. from page 132]

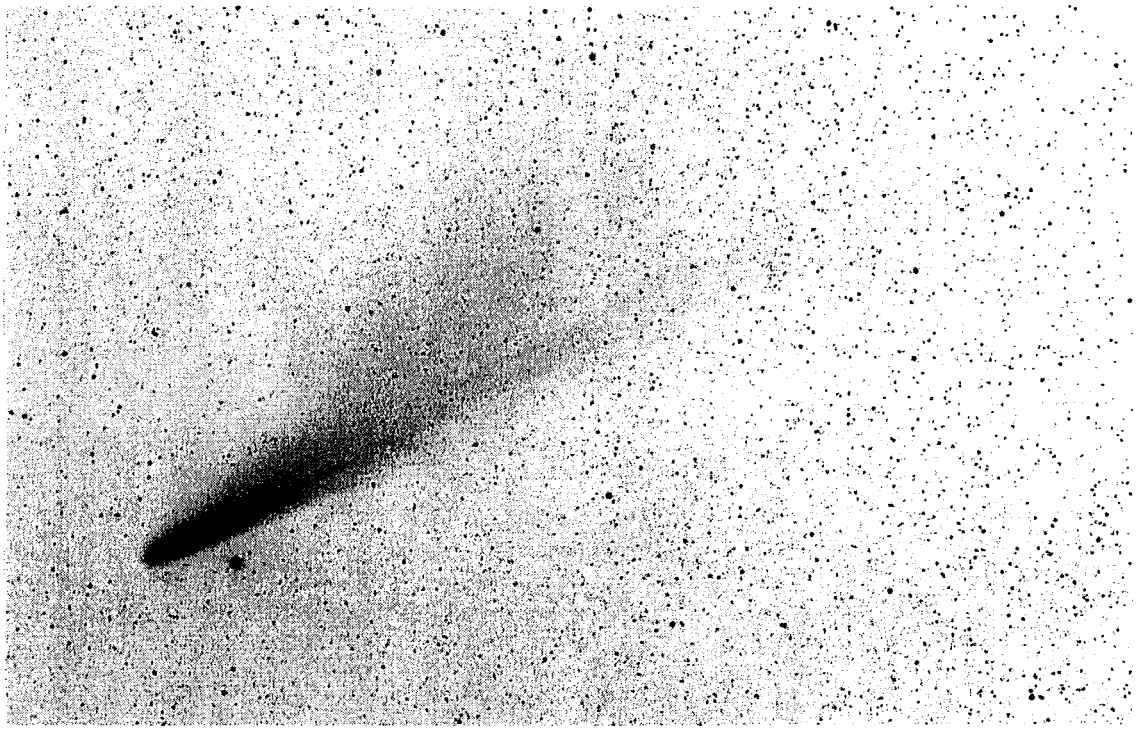
Mar. 23.76, below) [CSU]. Mar. 9.43: GUIDE 7.0 software used for comp.-star mags [NAK01]. Mar. 10.72: "the comet is becoming quite spectacular in appearance despite low alt.; a brilliant, highly condensed, almost stellar coma w/ the first deg of tail of quite high surface brightness; w/ 30-cm f/8.5 L (102×), the coma is slightly elongated in the tailward direction and is a vivid emerald green in color" [BEG01]. Mar. 10.76, 12.76, and 13.77: tail length given as 29° (see notes on this for Mar. 23.76, below) [CSU]. Mar. 10.76: nuclear cond. of mag 5.0 [CSU]. Mar. 11.43: ion tail extends in p.a. 52°-80°; the main streamer is bifurcated at a point 6′ from the nucleus in p.a. 57° [TSU02]. Mar. 11.43, Apr. 18.78, May 12.57, 20.72, June 2.53, and 6.61: GUIDE 7.0 software used for comp.-star mags [TSU02]. Mar. 11.72: strong central

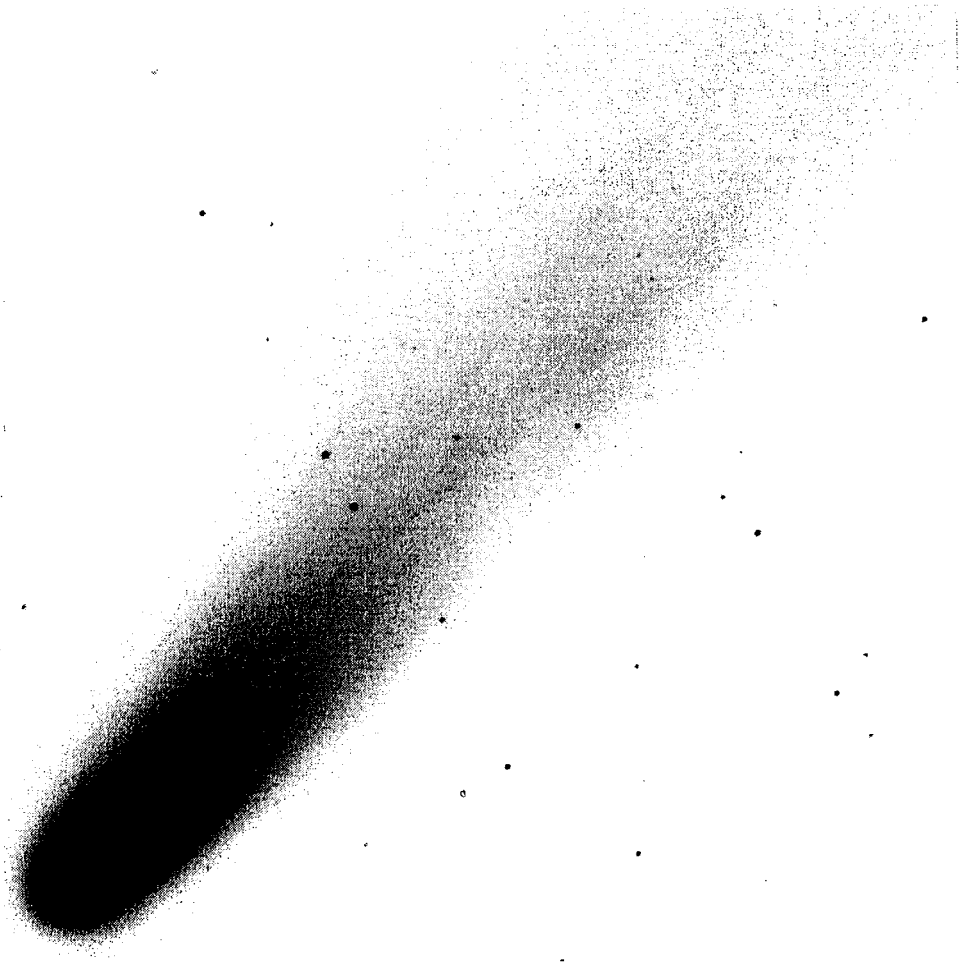
star-like cond., w/ bright emission from this in direction of tail; W edge of tail more defined than E edge [BAR06]. Mar. 11.73: comet low in alt., but in a fairly dark sky (to avoid twilight); "the comet is becoming very impressive indeed" [BEG01]. Mar. 12.76 and 13.77: nuclear cond. of mag 5.6 [CSU]. Mar. 16.71: despite twilight, tail broad and prominent; "I traded the comet's alt. for slightly darker conditions, and was rewarded w/ an impressive sight; I get the impression that a lot more tail would be visible if darker conditions were possible" [BEG01]. Mar. 17.76, 18.77, 28.77, 29.77, 30.77, and 31.77: nuclear cond. of mag 4.5 [CSU]. Mar. 20.78, 21.78, 22.78, 23.78, 24.78, 25.78, and 31.80: comet seen via naked eye [BAR]. Mar. 20.79: observed from city of Milan [CAV]. Mar. 21.77: the difference between gas and dust in the tail is more obvious than on Mar. 11 [BAR06]. Mar. 23.76: nuclear cond. of mag 4.7 [CSU]. *[text cont. on page 135]*

◇ ◇ ◇



Two more photographs of comet 153P by Michael Jäger on Ektrachrome 100 film. Above: 8-min exposure on 2002 Mar. 11.77 with his Deltagraph. Below: combination of two 4-min exposures taken on Mar. 30.81 with a 20-cm f/1.5 Schmidt camera. Jäger notes that a naked-eye tail 6°-7° long was visible on March. 30.





Unfiltered CCD image of comet 153P taken by F. Manca and P. Ghezzi with the 50-cm telescope at Sormano, Italy, on 2002 Mar. 20.8 (exposure 10 sec). Communicated by Marco Cavagna.

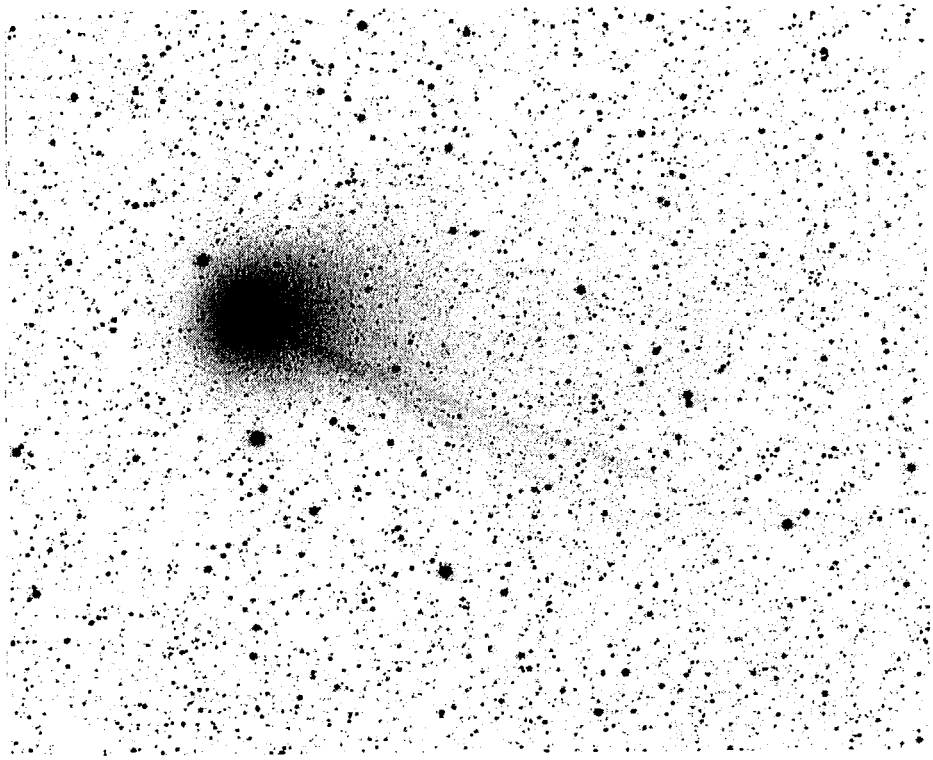
◇ ◇ ◇

[text cont. from page 134]

Mar. 26.77: nuclear cond. of mag 4.6 [CSU]. Mar. 23.76, 26.77, 28.77, and 29.77: moonlight [CSU]. Mar. 23.76: tail length given as 23° (when questioned by the *ICQ* editor about this, CSU replied that this and the other obs. in March with long tail lengths were made under the best conditions, with limiting naked-eye stellar mag ~ 7, and that SAJ — who also made tail-length estimates as long or longer than this — and CSU made their obs. independently of each other; because no other observer reported tail lengths longer than ~ 6° for this comet, it was decided not to include these long lengths in the *ICQ* tabulation; there were also huge corrections made later to the tail position angles around this time for both the CSU and SAJ data, both of which were reported to the *ICQ* by CSU) [CSU]. Mar. 25.78: w/ 36-cm *f*/6 L (120×), around the central cond. are bright, radial jets [BAR06].

Apr. 3.75: tail length given as 15°; see notes for Mar. 23.76 (above) for CSU [SAJ]. Apr. 10.09: W edge of tail appeared sharp, its E boundary more diffuse; somewhat hazy [GRA04]. Apr. 15.79: other tail 0°.6 long in p.a. 355° [CSU]. Apr. 16.80: other tail 0°.8 long in p.a. 355° [CSU]. Apr. 19.95: w/ 25.6-cm L (169×), central cond. of mag 11.4 [BIV]. Apr. 21.13: w/ 25.6-cm L (169×), central cond. of mag 11.7 [BIV]. Apr. 22.92: other tail 0°.6 long in p.a. 334°; moonlight [CSU]. Apr. 24.88: w/ 20.3-cm L (95×), central cond. of mag 11.4 [BIV]. Apr. 24.88, 24.89, 27.91, 27.92, 30.06, 30.08, and June 25.91: moonlight [HOR02]. Apr. 24.89: other tail 0°.6 long in p.a. 323°; moonlight [CSU]. Apr. 25.89: w/ 20.3-cm L (95×), central cond. of mag 12.1 [BIV]. Apr. 26.12: coma size impressive, but tail extremely faint [BEG01]. Apr. 27.12: moonlight interference extreme, w/ probably a third of the outer coma and all of the tail invisible [BEG01]. Apr. 27.88: wind, moonlight [BAR]. Apr. 28.83: other tail 0°.8 long in p.a. 304° [CSU]. Apr. 29.89: w/ 25.6-cm L (169×), central cond. of mag 12.8 [BIV]. Apr. 29.99: briefly seen through gaps in clouds [GRA04]. Apr. 30.88: other tail 0°.8 long in p.a. 300° [CSU]. Apr. 30.88 and May 6.92: round coma w/ central cond. [AND01].

May 1.56, 2.63, 5.63, 8.61, 8.67, 12.6, 19.58, 20.69, 21.63, 24.58, 25.50, 28.49, 31.63, June 2.49, 4.54, 6.57, 9.53, 16.61, July 6.48, and 11.52: GUIDE 6.0 software used for comp.-star mags [NAG08]. May 1.88: dark sky near Mormin Lake, near Ostrorog; comet easy naked-eye object [RES]. May 1.90: other tail 0°.7 long in p.a. 288° [CSU]. May 1.91: w/ 20.3-cm L (298×), central cond. of mag 12.2 [BIV]. May 1.99: before moonrise; comet well visible by naked eye again; dark site; tail faint [RES]. May 2.78: GUIDE 7.0 software used for comp.-star mags [WAT01]. May 2.90: other tail 0°.7 long in p.a. 289° [CSU]. May 2.91: well visible by naked eye [RES]. May 2.92: tail is still rather long, but very faint;

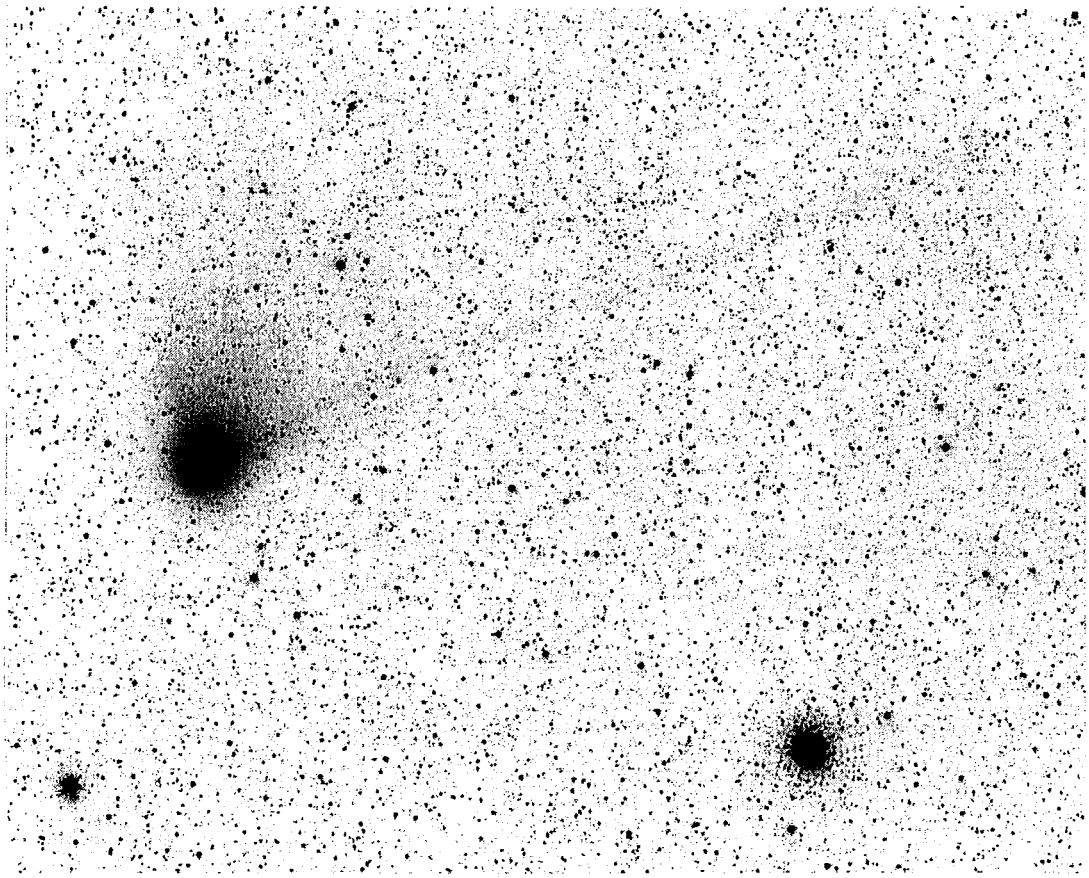


Another photograph by Michael Jäger of comet 153P, taken on 2002 May 1 on Ektachrome 100S film with a 25-cm f/1.8 Schmidt telescope. Note the thin, long gas tail and the short, diffuse dust close to the coma and above the gas tail.

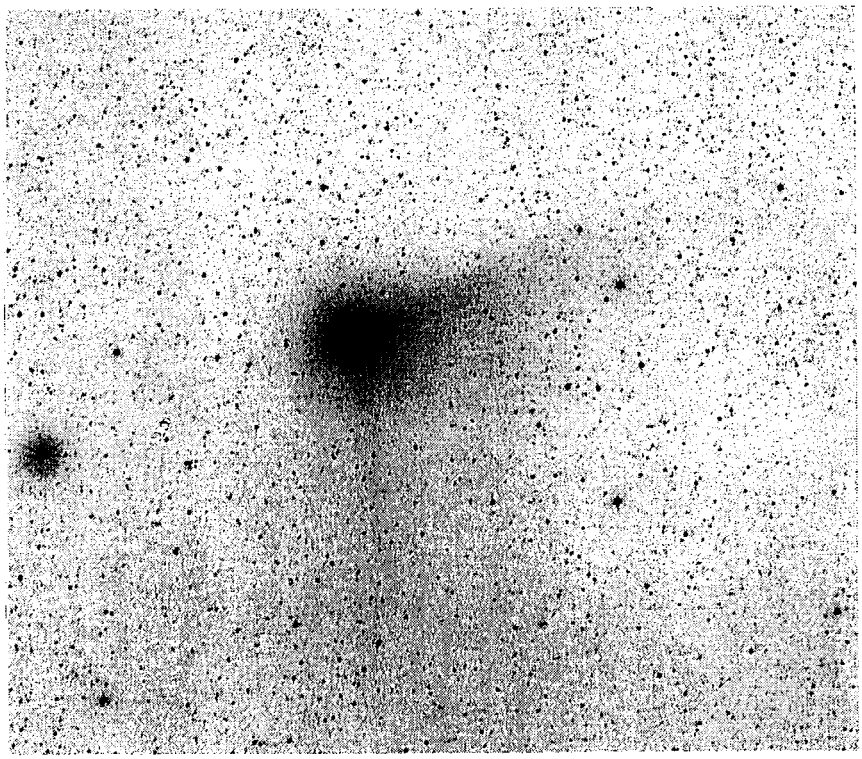
◇ ◇ ◇

[text cont. from page 135]

comet also rather easy naked-eye object [BOU]. May 3.90: other tail 1.1° in p.a. 297° [CSU]. May 3.99: comet visible to naked eye as a diffuse patch; w/ 7×50 B, the coma appeared somewhat elongated; solar alt. −14° [GRA04]. May 4.08: w/ 25.6-cm L (333×), central cond. of mag 13.4 [BIV]. May 4.71, 18.52, 21.58, 24.61, and June 2.52: `The Sky ver. 5` software used for comp.-star mags [MIT]. May 4.71 and July 6.54: `GUIDE 7.0` software used for comp.-star mags [MIY01]. May 4.86: other tail 0°.8 long in p.a. 291° [CSU]. May 5.01: w/ 20.3-cm *f*/10 T (100×), the coma appeared very diffuse, but still well condensed (DC = 6); a faint and narrow tail, at least 0°.4 long and in p.a. 225°, seemed to originate from the false nucleus; in 7×50 B, the brightness distribution of coma was similar to that of M13, although the coma appeared considerably larger and brighter; it remained visible via naked eye and 7×50 B until true solar alt. −10°.3 and −7°.0, respectively [GRA04]. May 5.88: large, condensed coma with a rather faint, broad tail [KAM01]. May 5.90: well visible by naked eye; tail faint [RES]. May 6.98: broad tail more difficult than the night before [KAM01]. May 7.10: w/ 25.6-cm L (169×), central cond. of mag 12.5 [BIV]. May 7.88: other tail 0°.2 long in p.a. 276° [CSU]. May 8.88: other tail 0°.5 long in p.a. 277° [CSU]. May 8.92: comet faintly visible to naked eye; round coma w/ central cond. [AND01]. May 8.95: twilight, solar alt. −12°; coma elongated E-W in a 2:3 ratio; still faintly visible to naked eye [KAR02]. May 10.75, 12.69, 19.73, June 9.68, and July 6.51: `GUIDE 8.0` software used for comp.-star mags [YOS02]. May 10.98: naut. twilight, solar elevation −12°; coma elongated ≈ E-W in a 3:4 ratio; faint tail suspected towards p.a. 250°; comet still faintly visible to naked eye w/ averted vision [KAR02]. May 11.89: w/ 20.3-cm T (267×), central cond. of mag 12.7; thin, irregular 1° ion tail in p.a. 215° (67×) [BIV]. May 11.92: coma very condensed; tail faint but broad; hint of a slight extension to the coma, ~ 5′ long in p.a. 280° [BEG01]. May 12.92: also visible to naked eye w/o much difficulty, but getting rather faint [BOU]. May 13.94: coma round, diffuse w/ small central cond.; faintly visible w/ naked eye; estimate of tail p.a. somewhat uncertain; hazy sky, light pollution (Pescara, Italy) [WAR02]. May 14.87: very good conditions, comet still naked-eye object, no tail seen [RES]. May 14.93: hazy sky, light pollution [WAR02]. May 14.98: glow of coma clearly weaker than that of M13; obs. May 14.98 to 18.98 were made in naut. twilight (sun 11°-10° below astron. horizon); sky brightness comparable to full-moon conditions [GRA04]. May 15.83: noticeable stellar core [BEG01]. May 15.86: close to bright star [HOR02]. May 15.93: coma round and diffuse w/ small central cond.; two straight, diffuse tails, the one at p.a. 290° slightly brighter; a very faint glow extended between the tails as a fan-shaped structure; visible as a diffuse glow with naked eye; obs. from Pescara, Italy [WAR02]. May 15.93: clear weather; no tail visible; round coma with central cond. [AND01]. May 15.98: w/ 20.3-cm L (191×), central cond. of mag 12.5 [BIV]. May 16.94: w/ 20.3-cm L (191×), central cond. of mag 12.9 [BIV]. May 16.97: w/ 30-cm T (75×) faint, broad tail towards SSW; inconspicuous, starlike false nucleus of mag ~ 11.5 in the center of the coma [KAM01]. May 16.98: comet still visible by naked eye;



Additional photographs of comet 153P by Michael Jäger. Above: two 8-min exposures taken on 2002 May 16.00 with a 25-cm f/1.8 Schmidt telescope. Note the globular cluster M13 at lower right. The long, narrow, thin gas tail points toward upper right corner, while the short, stubby, diffuse dust tail points almost directly up from the comet's head. Below: two 8-min exposures on hypered Technical Pan film taken with a 20-cm f/1.5 Schmidt telescope on May 29.917. The gas tail toward the south (downwards in this orientation) is shorter than the dust tail toward the upper-right corner.



[text cont. from page 136]

tail very faint now; M13 nearby [RES]. May 19.02: w/ 25.6-cm L (169×), central cond. of mag 13.1; 0°.7 ion tail in p.a. 195° (42×) [BIV]. May 21.21: obs. with waxing gibbous moon in W, ~ 1.5 hr from setting, with comet not far from zenith (m_1 estimate may have been brighter if had waited until moonset) [GRE]. May 21.98: in 7×50 B, the comet not an easy object, but much better seen w/ the 7.0-cm *f*/6.8 R (24×); bright twilight (sun 9°.5 below horizon), moonlight, and some cloud interference [GRA04]. May 22.31: waited until moonset for a darker sky (cf. notes on May 21.21 obs.) [GRE]. May 23.12: sky very bright due to waxing gibbous moon, making diffuse comet much less obvious against sky background, even though it has not faded much intrinsically [GRE]. May 24.85: moonlight [BAR]. May 31.96: comet possibly glimpsed w/ unaided eye; w/ 25×150 B, broad and diffuse 3° tail in p.a. 155° [ZAN].

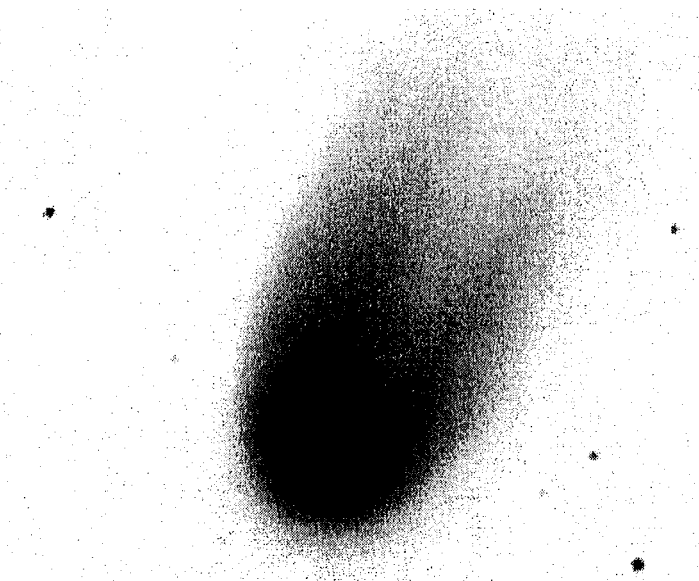
June 1.89: comet close to bright star [RES]. June 2.13: comet seems much fainter (half a mag or so), at first glance, than on previous night; obs. made from suburban Boston (moderate light pollution; Milky Way not visible) during May 19 through tonight [GRE]. June 3.13: obs. tonight (and on May 16.18 and July 12.16) from dark-sky site at Pack Monadnock Mtn., NH; comet appears larger, more condensed, and much easier against darker sky background than on previous night, when obs. was made from suburban Boston (that it appeared more condensed and slightly brighter was likely due to the darker sky conditions); m_1 estimates in larger binoculars near limit of how much the eyepieces can be defocussed for VSS method due to the large size of the comet [GRE]. June 11.93: comet inconspicuous, but still showing a large coma; w/ 20-cm T (161×), starlike false nucleus of mag 12.8 [KAM01]. June 11.96: comet still fairly large, but becoming very diffuse [BOU]. June 14.99: large coma w/ rather low surface brightness; w/ 30-cm T (75×), slightly brighter inner coma discernible, in which a starlike false nucleus of mag 12.5 showed at 242× [KAM01]. June 16.02: low-surface-brightness object w/ ill-defined boundaries [GRA04]. July 2.03: diffuse and round; no tail visible; clear weather, very windy; no moonlight; alt. 2400 m, Observatorio del Roque de Los Muchachos, La Palma, Spain [WAR02]. July 4.93: diffuse and round; no tail visible; humid, scattered clouds; alt. 330 m, at Volcano de Aridane, La Palma, Spain [WAR02]. July 5.50: difficult object of low surface brightness [PEA]. July 6.99: "the low surface brightness of the large apparent coma and the instrument aperture have a clear influence on the observations, being the cause of the great differences in the m_1 and dia. estimates" [GON05]. July 10.94: large, vague coma w/ only a hint of concentration towards center [KAM01]. July 10.96-15.95: comet is still fairly large, but has become very diffuse — just a faint glow gradually disappearing into sky background [BOU]. July 12.16: m_1 would have been 0.1 mag brighter without B–V correction for red comparison stars HIP 75261 and 75648; comet faintly visible in 12×50 B, but dia. not easily measureable and m_1 estimate prohibitive; possible slight haze in sky [GRE]. July 12.57: `MegaStar Ver. 4.0` software used for comp.-star mags [MUR02]. July 15.01: diffuse and difficult to obs. w/ 11× 80 B [GON05].

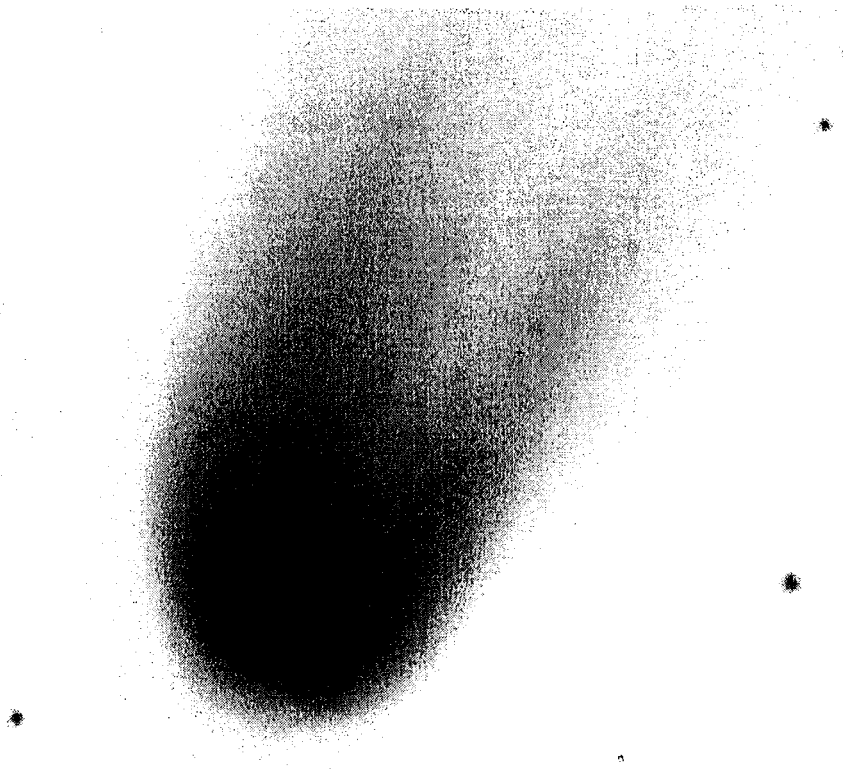
◇ *Comet C/1999 U4 (Catalina-Skiff)* ⟹ 2002 May 17.01: limiting mag ~ 16 (162×); confirming second detection made at May 17.07 [LEH].

◇ *Comet C/2000 SV$_{74}$ (LINEAR)* ⟹ 2002 Jan. 6.46, Feb. 12.42, 18.44, and Mar. 4.43: `GUIDE 6.0` software used for comp.-star mags [TSU02]. May 16.98, June 17.92, 18.94, and 29.98: limiting mag ~ 15 (81×) [LEH]. June 28.93, July 8.97, and 9.97: limiting mag ~ 15.5 (81×) [LEH]. June 28.93: confirming second detection made at June 29.01 [LEH]. June 29.98: confirming second detection made at June 30.03 [LEH].

◇ ◇ ◇

Below: Combined image from two 5-sec CCD exposures of comet C/2000 WM$_1$ taken by Michael Mattiazzo (Wallaroo, S. Australia) with a Celestron C11 (+ MX7c camera) taken on 2002 Jan. 30.8.





Another CCD composite (two 5-sec images) of comet C/2000 WM$_1$ taken with a 28-cm T by Mattiazzo on 2002 Jan. 31.79. Field-of-view 12′ × 9′.

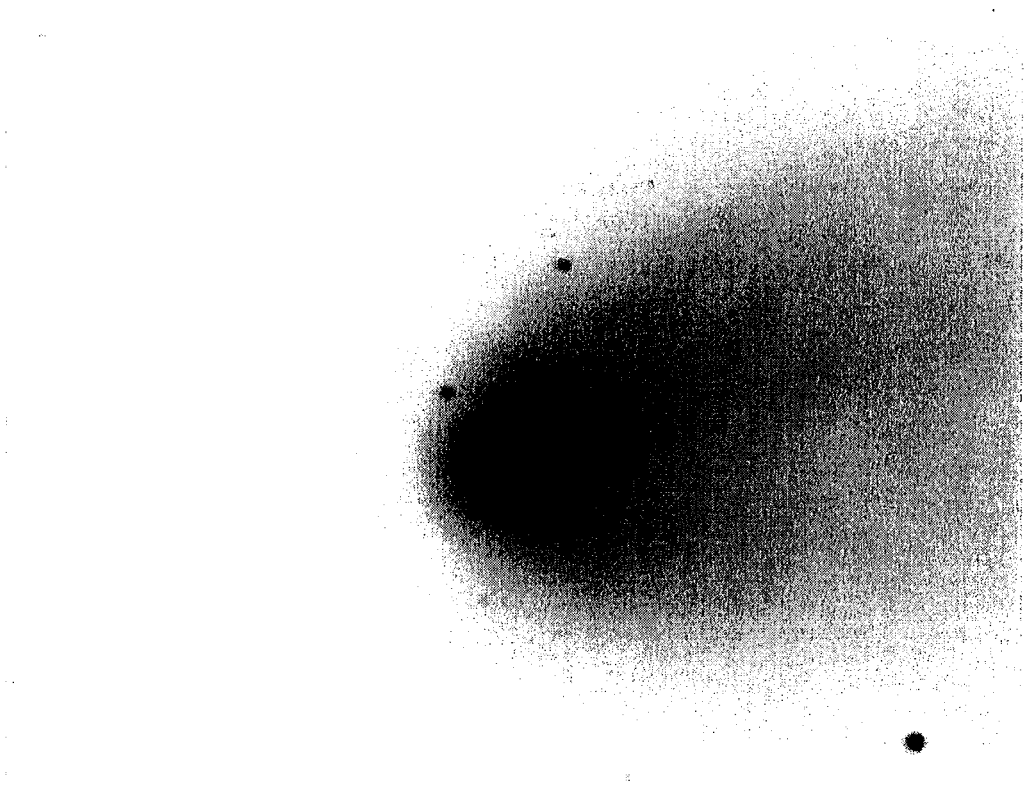
◇ ◇ ◇

◇ *Comet C/2000 WM$_1$ (LINEAR)* ⟹ 2001 Dec. 3.43, 4.42, 7.44, 8.45, 10.40, and 14.40: GUIDE 6.0 software used for comp.-star mags [TSU02]. 2002 Jan. 30.11: due to moonlight and low-alt. haze (comet alt. 8°), the only thing visible was the central cond. (this appeared very much like a sharp-edged planetary disk, hence DC = 9, but was distinctly elongated, thus appearing as an oval feature ∼ 45″ across) [BEG01]. Jan. 31.11: "conditions better than previous morning; comet conspicuous and appears stellar w/ unaided eye; in binoculars, intense bright core surrounded by substantial, but well-defined, outer coma"; tail strongly curved (but median p.a. was 198°) [BEG01]. Jan. 31.11: tail 1° w/ two distinct elongated regions; remained visible to naked eye w/in 40 min of local sunrise [PRI04].

Feb. 1.11: "tail much more conspicuous this morning (first degree of length prominent); telescopically impressive" [BEG01]. Feb. 3.10: "bright moon and continual thin clouds moving in; comet prominent despite poor conditions; sharp coma, but definitely appears non-stellar" [COO02]. Feb. 3.10: "comet has faded by over a mag in last 48 hr, but is nevertheless still impressive" [BEG01]. Feb. 3.10: in 10-cm f/10 L (55×), tail extends in two directions — longer, denser 50′ in p.a. 220° (dirty brown color), and shorter 30′ in p.a. 190° (white-orange color); false nucleus appears stellar, m_2 < 7 [PRI04]. Feb. 4.11: much clearer, comet spectacular; tail bright and easy; slightly curved narrow fan [COO02]. Feb. 4.11: low-level haze; comet below naked-eye threshold at this alt. [BEG01]. Feb. 6.10: "coma stellar in appearance, no tail visible to naked-eye; in binoculars, coma more condensed than two days ago; bright central cond. at the apex of a cone-shaped coma" [BEG01]. Feb. 7.11: "comet very much less condensed, w/ central cond. having faded to a faint stellar point at the leading edge of the coma" [BEG01]. Feb. 7.11: in 10-cm L (55×), two tails (20′ in p.a. 215° and 50′ in p.a. 245°) [PRI04]. Feb. 10.09: "in binoculars, coma appears small and condensed; in 20-cm L (63×), the appearance is very different, w/ a sharp central point, almost stellar, surrounded by a small bright coma that becomes immediately the tail w/o any clear distinction of where coma ends and tail begins; the main tail appears as a bright narrow band, definitely curved, and flanked on both sides by a narrow swathe of material, giving the overall appearance of a narrow fan; the fan shape is most prominent in the SE" [COO02]. Feb. 12.10: in 10-cm L f/10 (50×), sharply rounded coma w/ two tails extending 15′ in p.a. 210° and 40′ in p.a. 230° [PRI04]. Feb. 12.11: "atmospheric extinction correction applied, but this was minor" [BEG01]. Feb. 13.10: "this was the best view of the tail; gracefully curved w/ a mean p.a. of 224°; p.a. near the coma was 230°, at the end of the visible tail p.a. was 218°; w/ 15-cm L f/7 (55×), the view was much more complex, w/ the comet superimposed on three bright field stars, creating a wonderfully aesthetic view; the stellar central cond. was placed very close to the 'point' of a bullet-shaped coma and inner tail; 'leading' N edge of the tail sharply pronounced, in p.a. 231°, while the 'trailing' S edge was much more diffuse (but measured to 13′ in p.a. 210°);

the central tail extended well out of the field-of-view, but was traced to 40′ in p.a. 226° as twilight began to intervene" [BEG01]. Feb. 13.11: in 10-cm L $f/10$ (50×), two tails in p.a. 230° and 210°; in 10×50 B, the split between these tails is noticeable, w/ the tail in p.a. 210° distinctly curved [PRI04]. Feb. 14.11: slightly hazy conditions [BEG01]. Feb. 15.10: "compact coma, slightly oval, surrounded by definite outer faint envelope; star of mag 7 near E edge of coma (probably SAO 211361); soft tail, sharper on W edge" [STR03]. Feb. 16.11: "> 80% cloud cover — comet seen for 5-6 min through a break in the cloud after a 45-min wait!; the first 20′ of tail is almost the same surface brightness as the coma now, and it is quite difficult to differentiate between the two" [BEG01]. Feb. 20.11: "tail's N 'leading' component 2°.6 long in p.a. 227°, w/ S 'trailing' component 1°.1 long in p.a. 208°; in binoculars, still a stellar central cond. surrounded by a bright, dense coma (more spherical in shape than previously); main section of the tail much straighter now, but the shorter component is still quite curved and more yellow in appearance (possibly much denser material?); w/ 15-cm L $f/7$ (50×), stellar central cond. of mag 8.5, surrounded by a bright, small, spherical cloud of material; the leading N edge of the tail sharply pronounced in p.a. 239°; the brightest section of tail centered on p.a. 227°, and there was even a short extension in p.a. 197°; the most interesting aspect, however, was a faint 'fan' of material 2′.8 long in front of the coma in p.a. 97° (possibly the beginnings of an anti-tail?)" [BEG01]. Feb. 23.10: w/ 15-cm L $f/7$ (50×), coma is a small, compact spherical cloud w/ a faint stellar central cond.; the tail is a broad, curved fan w/ the leading edge in p.a. 235°; the brightest section of tail lies in p.a. 227°, w/ a faint, diffuse trailing edge in p.a. 205°; sketch made during a 15-min period centered on Feb. 23.11 [BEG01]. Feb. 25.11: coma slightly more condensed than two days ago; tail consists of a broad fan, w/ the leading edge in p.a. 235° and the trailing edge in p.a. 227°, but centered in p.a. 231° [BEG01]. Feb. 26.11: comet obs. in the brief 'window' between moonset and twilight; tail much shorter when observed before moonset [BEG01]. Feb. 27.10: "comet very 'washed out' — full moon seems exceptionally bright this month" [BEG01].

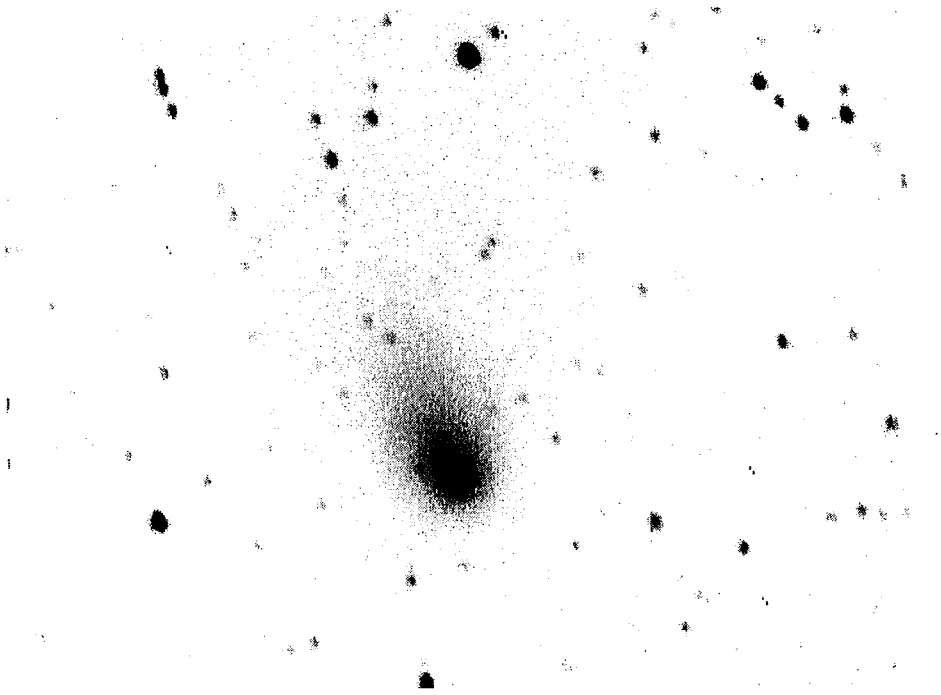
◇ ◇ ◇



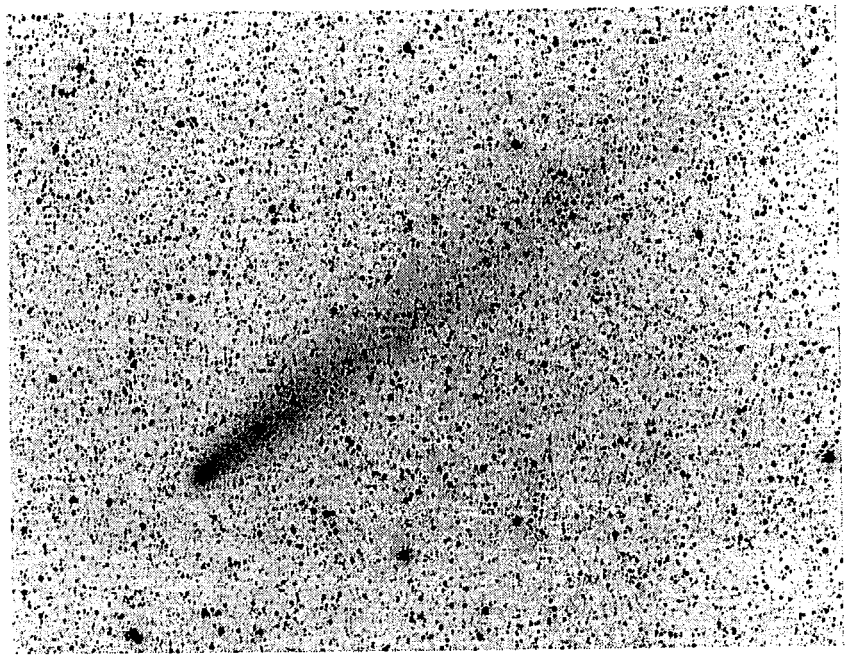
Another CCD image (15-sec exposure) of comet C/2000 WM$_1$ taken by Michael Mattiazzo on Feb. 4.79 with a 28-cm T (and MX7c camera). Field-of-view 12′ × 9′.

◇ ◇ ◇

Mar. 3.11: comet now diffuse, which makes dia. estimate difficult; moonlight interference [PRI04]. Mar. 4.10: "moonlight restricted use of MM, exacerbated by the relatively large coma; using the Morris method, the fainter comparison stars just disappear in the bright background when defocused; the tail still has almost the same surface brightness as the coma" [BEG01]. Mar. 6.10: "the surface brightness of the tail has faded considerably since the last obs." [BEG01]. Mar. 8.83 and 9.82: broad, fan-shaped tail; moonlight influence on Mar. 8.83 (obs. to supplement tab. data in April 2002 *ICQ*) [YOS04]. Mar. 11.10: tail of low surface brightness, but broad, w/ the leading edge in p.a. 245° and the trailing edge in p.a. 221°, centered in p.a. 233° [BEG01]. Mar. 13.10: "comet is becoming a faint binocular object; it is amazing that the tail has persisted this long" [BEG01]. Mar. 16.10: coma close to HIP 95049 (mag 7.0), but not close enough to affect the m_1 estimate [BEG01]. Mar. 17.11: compact inner coma; faint outer coma; softer appearance than previously,

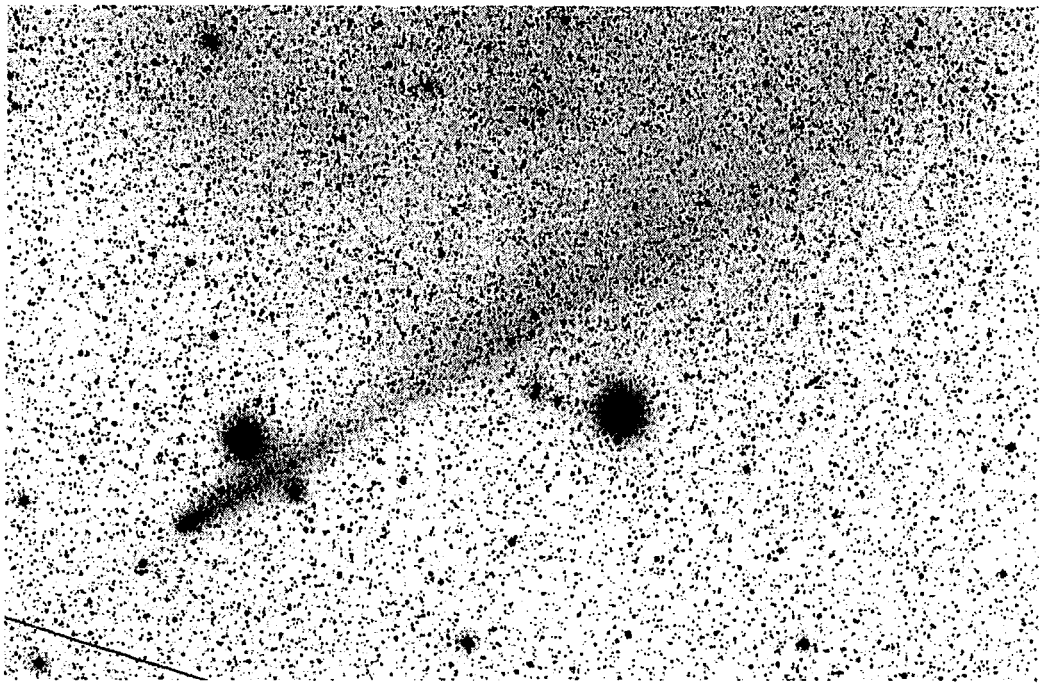


Additional images of C/2000 WM$_1$ in 2002. Above: Composite of two CCD images by Michael Mattiazzo on Mar. 13.73 (Celestron C11 reflector + MX7c camera). Field-of-view 12′ × 9′. Below: Photograph taken on hypered Technical Pan film by Michael Jäger with a 25-cm f/1.8 Schmidt telescope on May 9.015. From this photo, Jäger estimated total mag 10.0, coma diameter 2′.5, and the length of the dust tail to be 70′ in p.a. 218°.

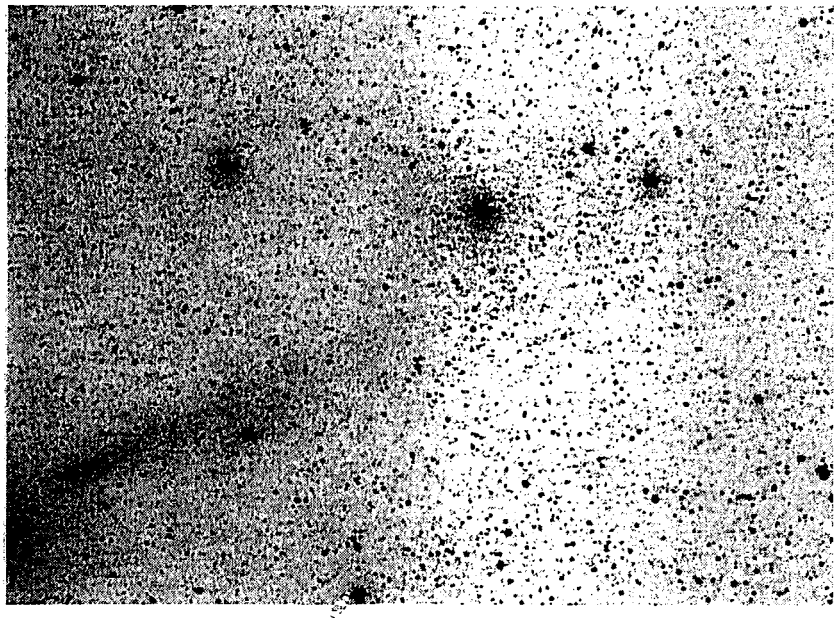


◇ ◇ ◇

[text cont. from page 140] w/ definite point in center of coma [STR03]. Mar. 17.11: bright inner coma, spurious outer coma; distinct, faint starlike point in center [COO02]. Mar. 19.80: "still has a long, beautiful tail; the comet looks like a great comet [even] though it is faint" (obs. to supplement tab. data in April 2002 *ICQ*) [YOS04]. Mar. 26.07: "coma diffuse, much less bright towards center, w/ faint central point of mag ~ 12; short, spurious, fan-shaped tail spans 228°-255° but centered on p.a. 242°; tail sharper on E edge; W edge fainter and fuzzier" [COO02]. Apr. 7.10: slightly condensed, much-smaller, central point of mag ~ 12.5; no tail visible in hazy sky w/ nearby moon [COO02].



Two additional photographs of C/2000 WM$_1$ by Michael Jäger. Above: 13-min exposure with a 25-cm f/1.8 D on 2002 May 14.00. The tail was measured from this as 1°.5 long. Below: Photo with 20-cm f/1.5 D on June 4.958.



◇ ◇ ◇

[text cont. from page 141] Apr. 12.78, May 12.67, and June 2.64: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 1.58, 8.63, and 20.72: GUIDE 6.0 software used for comp.-star mags [NAG08]. May 3.98: faint, but detected at correct location; telescopic visibility inferior to the naked-eye appearance of C/2002 C1 [GRA04]. May 5.00: only faintly seen in astron. twilight (sun 13° below horizon) [GRA04]. May 10.77, 12.72, and 19.75: GUIDE 8.0 software used for comp.-star mags [YOS02]. May 16.99: close to star [HOR02]. June 17.98: comet near M13 [RES]. June 28.90: limiting mag ~ 16.0 (81×); confirming second detection made at June 29.00 [LEH]. June 29.90: limiting mag ~ 16 (81×); confirming second detection made at June 30.00 [LEH]. July 4.95, 7.93, and 8.93: reality checked via Digital Sky Survey [HOR02]. July 8.89, 9.89, and 14.90: limiting mag ~ 16 (162×) [LEH]. July 8.89: confirming second detection made

at July 9.00 [LEH]. July 9.89: confirming second detection made at July 10.00 [LEH]. July 14.90: confirming second detection made at July 14.98 [LEH].

◇ *Comet C/2001 B2 (NEAT)* ⟹ 2002 Mar. 13.51: GUIDE 7.0 software used for comp.-star mags [TSU02].

◇ *Comet C/2001 HT$_{50}$ (LINEAR-NEAT)* ⟹ 2002 Feb. 18.56: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 9.58, Apr. 4.48, 27.47, and May 12.48: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 12.48: w/ infrared-block filter [TSU02]. May 28.47: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet C/2001 K5 (LINEAR)* ⟹ 2002 May 17.05: limiting mag ~ 16 (162×); confirming second detection made at May 17.08 [LEH]. June 1.91: ephemeris from Minor Planet Center Electronic Service; checked with Digital Sky Survey; limiting stellar mag 15.0 [HAS02]. June 17.97: limiting mag ~ 15 (81×); confirming second detection made at June 18.01 [LEH]. June 29.92: limiting mag ~ 16 (81×); confirming second detection made at June 30.01 [LEH]. July 8.92, 9.92, 14.94, 28.90, and 29.90: limiting mag ~ 15.5 (81×) [LEH]. July 8.92: confirming second detection made at July 9.01 [LEH]. July 8.96: close to bright star [HOR02]. July 9.92: confirming second detection made at July 10.01 [LEH]. July 14.94: confirming second detection made at July 15.00 [LEH]. July 28.90: confirming second detection made at July 28.98 [LEH]. July 29.90: confirming second detection made at July 29.98 [LEH].

◇ *Comet C/2001 MD$_7$ (LINEAR)* ⟹ 2002 Jan. 6.43, 11.41, Feb. 7.45, and Mar. 6.45: GUIDE 6.0 software used for comp.-star mags [TSU02]. Apr. 4.45: GUIDE 7.0 software used for comp.-star mags [TSU02].

◇ *Comet C/2001 N2 (LINEAR)* ⟹ 2002 Jan. 11.38: GUIDE 6.0 software used for comp.-star mags [TSU02]. May 3.02: faint, diffuse object moving near some faint stars — not far from FG Sge [RES]. May 16.97: "checked field w/ DSS images (via Guide 8 software) — no nebular objects on this field; object moving in correct direction during 1.5 hr; comet not far from my nightly target, V405 Vul" [RES]. June 1.90: rich star field [RES]. July 14.96, 28.86, and 29.86: limiting mag ~ 15 (81×) [LEH]. July 14.96: confirming second detection made at July 15.02 [LEH]. July 16.00: comet brighter than expected; fairly easily seen as a round, diffuse object w/ slight cond.; motion over a period of 20 min evident, moving away from a star of mag 13 [BOU]. July 28.86: confirming second detection made at July 28.96 [LEH]. July 29.86: confirming second detection made at July 29.96 [LEH].

◇ *Comet C/2001 OG$_{108}$ (LONEOS)* ⟹ 2002 Feb. 1.40: GUIDE 7.0 software used for comp.-star mags [NAK01]. Feb. 12.41 and 24.84: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 13.79, Apr. 27.45, and May 12.48: GUIDE 7.0 software used for comp.-star mags [TSU02]. Mar. 19.81: condensed, so easier to see than C/2002 E2, obs. on same night (obs. to supplement tab. data in April 2002 *ICQ*) [YOS04]. May 1.57 and 2.46: GUIDE 6.0 software used for comp.-star mags [NAG08]. May 12.47: faint tail spans p.a. 60°-105° [NAK01]. May 12.48: dust tail spans p.a. 58°-90°; w/ infrared-block filter [TSU02].

◇ *Comet P/2001 Q2 (Petriew)* ⟹ 2001 Aug. 22.11: w/ 25×150 B, m_1 = 9.5, coma dia. 5′, DC = 4.5 (cf. *ICQ* **24**, 9, where the designation for this comet was given incorrectly as "P/2001 Q6") [ZAN].

◇ *Comet C/2001 Q4 (NEAT)* ⟹ 2002 Jan. 5.47: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet P/2001 Q5 (LINEAR-NEAT)* ⟹ 2002 Jan. 6.53: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet P/2001 Q6 (NEAT)* ⟹ 2002 Jan. 11.40: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet P/2001 R1 (LONEOS)* ⟹ 2002 Feb. 15.45: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet C/2000 RX$_{14}$ (LINEAR)* ⟹ 2002 Feb. 7.48: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet P/2001 T3 (NEAT)* ⟹ 2002 Feb. 1.47: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet P/2001 TU$_{80}$ (LINEAR-NEAT)* ⟹ 2002 Jan. 11.55, Feb. 1.55, 7.52, and 18.53: GUIDE 6.0 software used for comp.-star mags [TSU02]. Mar. 9.54, 28.50, and Apr. 1.51: GUIDE 7.0 software used for comp.-star mags [TSU02].

◇ *Comet C/2001 W2 (BATTERS)* ⟹ 2001 Dec. 15.38 and 30.37: *V* comparison-star magnitudes taken from GSC, and Cousins *I* filter used, so m_1 must be considered very approximate [EZA]. Dec. 16.38: GUIDE 6.0 software used for comp.-star mags [TSU02]. Dec. 22.37: *V* comparison-star magnitudes taken from Tycho, and Cousins *I* filter used, so m_1 must be considered very approximate [EZA].

◇ *Comet C/2001 X1 (LINEAR)* ⟹ 2002 Feb. 20.46: GUIDE 6.0 software used for comp.-star mags [TSU02].

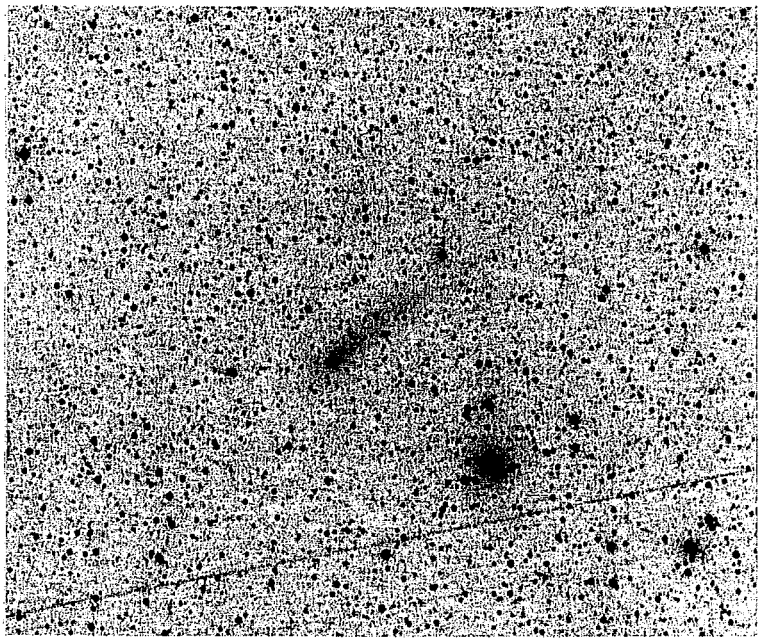
◇ *Comet C/2002 B1 (LINEAR)* ⟹ 2002 Feb. 12.45: GUIDE 6.0 software used for comp.-star mags [TSU02].

◇ *Comet C/2002 B2 (LINEAR)* ⟹ 2002 Feb. 7.68 and 12.71: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet P/2002 BV (Yeung)* ⟹ 2002 May 12.67: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet P/2002 CW$_{134}$ (LINEAR)* ⟹ 2002 May 12.56: GUIDE 7.0 software used for comp.-star mags [NAK01].

◇ *Comet C/2002 E2 (Snyder-Murakami)* ⟹ 2002 Mar. 8.80: prediscovery photograph on T-Max 400 film with 10-cm *f*/4 patrol camera; GUIDE 8.0 software used for comp.-star mags [TAK05]. Mar. 13.83, Apr. 4.74, and June 2.67: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 1.57 and 8.65: GUIDE 6.0 software used for comp.-star mags [NAG08]. May 5.94: estimate made shortly before low clouds arrived [RES]. May 12.92: some interference from nearby bright δ Dra [BOU]. June 2.56 and 9.57: MegaStar Ver. 4.0 software used for comp.-star mags [MUR02]. June 13.01: close to star [HOR02]. June 17.94 and 18.97: limiting mag ~ 15 (81×) [LEH]. June 17.94: confirming second detection

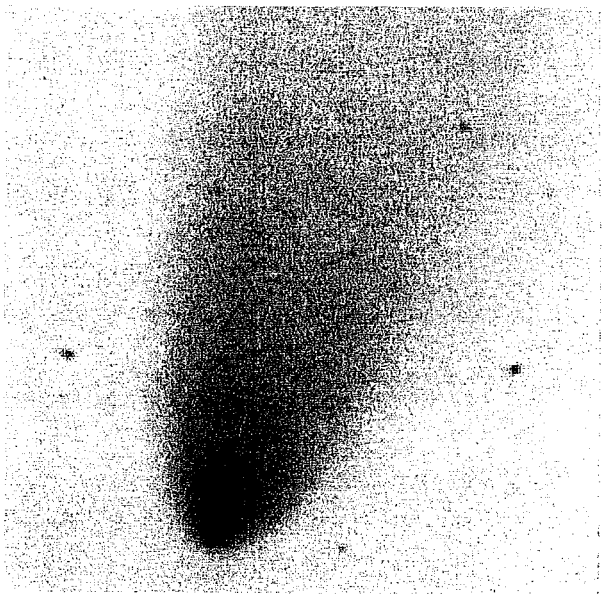


Photograph of comet C/2002 E2 on hypered Technical Pan film taken on 2002 May 9.035 by Michael Jäger with a 25-cm f/1.8 D. From this photo, he measured total mag 11.0-11.5, coma diameter 2'.5, and tail length 20'-25' in p.a. 225°.

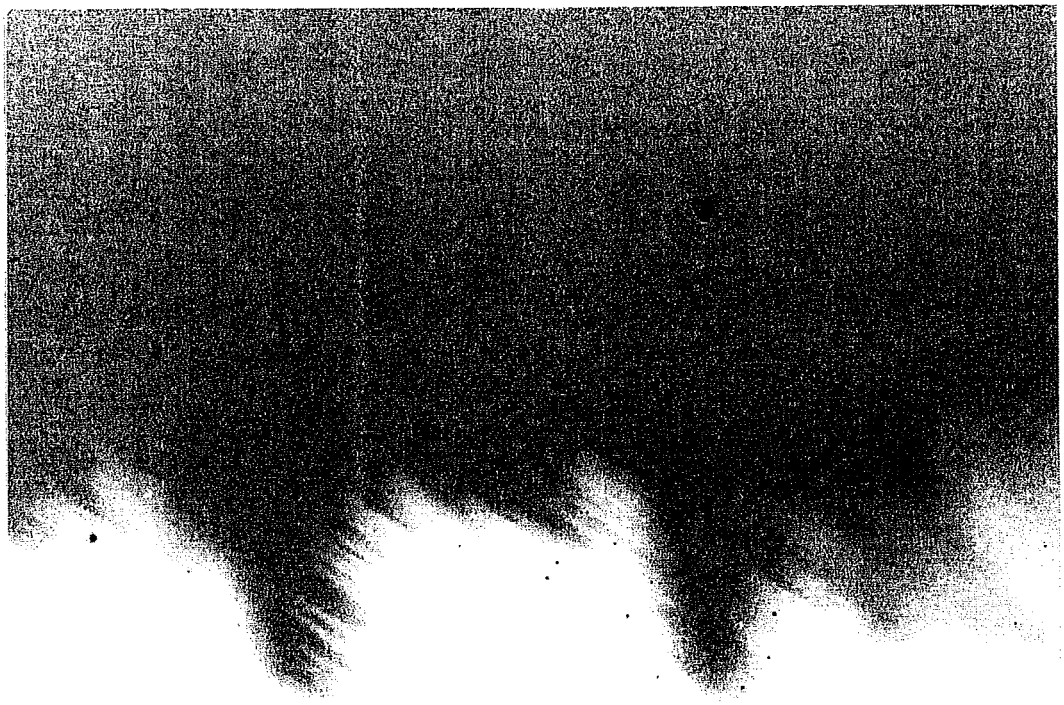
◇ ◇ ◇

[text cont. from page 143] made at June 18.01 [LEH]. June 18.97: confirming second detection made at June 19.01 [LEH]. June 28.96, 29.95, July 8.94, and 9.94: limiting mag ~ 15.5 (81×) [LEH]. June 28.96: confirming second detection made at June 29.02 [LEH]. June 29.91 and July 4.92: reality checked via Digital Sky Survey [HOR02]. June 29.95: confirming second detection made at June 30.02 [LEH]. July 8.94: confirming second detection made at July 9.03 [LEH]. July 9.94: confirming second detection made at July 10.03 [LEH].

◇ ◇ ◇



Unfiltered CCD image (10-sec exposure, log-scaled) of C/2002 F1 taken by Bjorn H. Granslo (Eina, Norway) with a 25.4-cm f/6 reflector and ST-6 camera on 2002 Apr. 20.874. Field-of-view ≈ 10' × 12'.



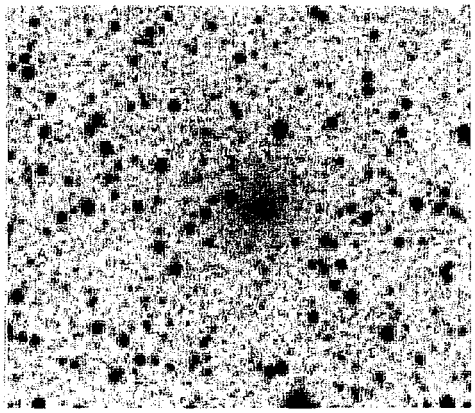
Photograph of comet C/2002 F1 by Michael Jäger on 2002 May 1 with Ektachrome 100S film (25-cm f/1.8 D). The bright star behind the trees at lower left is Mercury, and the Pleiades are directly below comet, also at the treeline. The original color photograph shows a spectacular 'V'-shaped tail.

◇ ◇ ◇

◇ *Comet C/2002 F1 (Utsunomiya)* ⟹ 2002 Apr. 1.81: ion tail 5′.7 long in p.a. 285° [KAD02]. Apr. 4.79: ion tail 10′ long in p.a. 289° [KAD02]. Apr. 5.80: ion tail 11′ long in p.a. 293° [KAD02]. Apr. 12.80: ion tail > 22′ long in p.a. 322° [KAD02]. Apr. 20.16: hazy; comet low; w/ 25.6-cm L (42×), central cond. of mag 9 (not prominent) [BIV]. Apr. 20.84: hazy; comet low; w/ 25.6-cm L (169×), central cond. of mag 8.4 [BIV]. Apr. 22.80: sharp tail well visible; correction to obs. in last issue (w/ extinction allowed for); Tycho Catalogue (Hipparcos satellite) comparison stars (γ, β, ϵ, δ Tri); comet low, twilight [RES]. Apr. 24.86: good sky transparency; w/ 20.3-cm L (95×), central cond. of mag 7.2 (bright) [BIV]. Apr. 25.86: good sky transparency; w/ 20.3-cm L (95×), central cond. of mag 7.9 [BIV]. Apr. 28.43: tail spans p.a. 340°-15°, w/ another tail 15′ long in p.a. 38° [KAD02]. Apr. 29.44: strong cond.; another fan-shaped tail > 16′ long (in p.a. 5°) spans p.a. 346°-17°; tail in p.a. 42° has width 4′.5; both tails extend outside of CCD field [KAD02]. Apr. 29.87: w/ 25.6-cm L (169×), central cond. of mag 7.5; at 42×, V-shaped tail in p.a. 25° and 40° [BIV]. Apr. 30.81, May 1.81 and 3.82: twilight and low alt. [HOR02]. May 1.44 and 2.44: GUIDE 6.0 software used for comp.-star mags [NAG08]. May 1.87: comet low, but good sky transparency; w/20.3-cm L (95×), central cond. of mag 8.9 [BIV]. May 2.44: another tail > 18′ long in p.a. 6°, spanning p.a. 353-21° [KAD02]. May 2.82: comet faintly visible due to twilight and low alt. (∼ 6°) [RES]. May 3.88: comet not seen despite its closeness to Mercury; obs. affected by strong twilight (solar alt. −10°) and low alt. (4°); sky clear and transparency good; Mercury clearly visible w/ naked eye, and the brightest stars in Pleiades were faintly visible in 7×50 B [GRA04]. May 11.85: comet very low (alt. 1°.7-0°.5) in twilight (sun alt. −14°.5), but excellent obs. conditions at IRAM Pico-Veleta site (elev. 2900 m); w/ 20.3-cm T (267×), central cond. of mag ∼ 9.5; seeing poor [BIV]. May 12.85: comet very low in twilight (alt. 2°.8-0°.6), but excellent obs. conditions (Pico-Veleta); w/ 20.3-cm T (267×), central cond. of mag ∼ 10.3; seeing fair [BIV]. May 17.89: central cond. very bright; light pollution, comet alt. 10° [DES01].

◇ *Comet C/2002 H2 (LINEAR)* ⟹ 2002 May 2.97: comet very close to 12th-mag star, but obs. could not be made later because of incoming clouds [BOU]. May 7.97: limiting mag ∼ 13.8 (106×); confirming second detection made at May 8.01 [LEH]. May 9.95: limiting mag ∼ 14.2 (140×); confirming second detection made at May 10.00 [LEH]. May 12.56: w/ infrared-block filter [TSU02]. May 12.56 and June 2.60: GUIDE 7.0 software used for comp.-star mags [TSU02]. May 13.98: limiting mag ∼ 14.4 (106×); confirming second detection made at May 14.02 [LEH]. May 15.98 and 16.95: limiting mag ∼ 16 (162×) [LEH]. May 15.98: confirming second detection made at May 16.02 [LEH]. May 16.95: confirming second detection made at May 16.99 [LEH]. May 20.74: GUIDE 6.0 software used for comp.-star mags [NAG08]. June 1.90: ephemeris from Minor Planet Center Electronic Service; checked with Digital Sky Survey; limiting stellar mag 15.0 [HAS02].

◇ *Comet C/2002 O4 (Hönig)* ⟹ 2002 July 28.91: comet easily visible, despite nearby star of 7th mag, twilight, and moon just above the E horizon [BOU]. July 29.91: twilight not completely ended; no moon [GIL01].



Photograph of comet C/2002 H2 on hypered Technical Pan film taken on 2002 May 8.995 by Michael Jäger with a 25-cm f/1.8 D. From this photo, he measured total mag 11.5, coma diameter 4′, an inner coma of diameter 1′, and a central condensation of mag 12-13.

◇ ◇ ◇

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

ABB	07	James Abbott, Witham, Essex, UK
ADA02	18	Jacek Adamik, Poland
AKA	16	Ayahiko Akahori, Nagano, Japan
AMO01	35	Alexandre Amorim, Brazil
AND01	21	Karl-Gustav Andersson, Sweden
ARA	35	Wesley Araujo, Salvador, Brazil
BAL05	18	Andrzej Balcerek, Wronki, Poland
BAN01	18	Robert Bankowski, Sanok, Poland
BAR		Sandro Baroni, Italy
BAR06	37	Alexandr R. Baransky, Ukraine
BAR10	18	Jan Bartnikiewicz, Poland
BEA	07	Sally Beaumont, Cumbria, England
BEG01	15	Mike Begbie, Harare, Zimbabwe
BIE01		Doug A. Biesecker, U.S.A. [SOHO]
BIV		Nicolas Biver, France
BOU		Reinder Bouma, The Netherlands
*BRO08		John Broughton, Qld., Australia
BRU	42	I. S. Brukhanov, Minsk, Belarus
BUR04	18	Wojciech Burzynski, Poland
BUS01	11	E. P. Bus, The Netherlands
CER01	23	Jakub Černý, Praha, Czech Rep.
CHE03	33	K. T. Cernis, Moletai, Lithuania
CHO01	18	Franciszek Chodorowski, Poland
CHR	18	Antoni Chrapek, Pikulice, Poland
COM	11	Georg Comello, The Netherlands
COO02		Tim P. Cooper, South Africa
CSU	32	Mátyás Csukás, Salonta, Romania
DES01		Jose G. de Souza Aguiar, Brazil
DIE02		Alfons Diepvens, Belgium
DIJ		Edwin van Dijk, The Netherlands
*DUB01	37	Yuriy Dubrovs'ky, Kyiv, Ukraine
DUS	18	Grzegorz Duszanowicz, Sweden
EZA	16	Yuusuke Ezaki, Osaka, Japan
FIL04	18	Marcin Filipek, Poland
FUK02	16	Hideo Fukushima, Tokyo, Japan
GAI	07	Michael J. Gainsford, England
GAR03	33	A. Garbaras, Varena, Lithuania
GIA01		A. Giambersio, Potenza, Italy
GIL01	11	Guus Gilein, The Netherlands
GOL	19	V. A. Golubev, Vitebsk, Belarus
*GOL04	42	Alexei A. Golovanov, Belarus
*GOL05	18	Leslaw Golas, Poland
GON05		J. J. Gonzalez, Asturias, Spain
*GOR06	23	Sylvie Gorkova, Czech Republic
GRA04	24	Bjoern Haakon Granslo, Norway
GRA09	18	Krzysztof Graczewski, Poland
GRE		Daniel W. E. Green, U.S.A.
*GRE04	35	Rosely Gregio, Mococa, Brazil
HAS02		Werner Hasubick, Germany
HOD01	35	Felipe Hodar, Sao Paulo, Brazil
HOR02	23	Kamil Hornoch, Czech Republic
JAN03	23	Otto Janoušek, Czech Republic
JAR01	18	M. Jarski, Niezabitow, Poland
JON07	15	Tony Jones, Cape Town, S. Africa
KAD02	16	K. Kadota, Ageo, Saitama, Japan
KAM01		A. Kammerer, Ettlingen, Germany
KAR02	21	Timo Karhula, Virsbo, Sweden
KEZ	18	Piotr Kezwon, Jasienica, Poland
KID01	18	Krzysztof Kida, Elblag, Poland
KIS03	18	Adam Kisielewicz, Poland
*KIT02		Maxim Kititsa, Kiev, Ukraine
KOS		A. Kósa-Kiss, Salonta, Romania
KOS01	18	Janusz Kosinski, Poland
KOU	23	Jakub Koukal, Czech Republic
KRZ	18	Tomasz Krzyt, Warszawa, Poland
KWI	18	Maciej Kwinta, Krakow, Poland

[*cont. from previous page*]

KYS	23	J. Kysely, Czech Republic
LEG	18	Marian Legutko, Gliwice, Poland
LEH		Martin Lehky, Czech Republic
LIN04		Mike Linnolt, HI, U.S.A.
MAC04	07	Gordon MacLeod, Caithness, U.K.
MAK02	18	Pawel Maksym, Lodz, Poland
MAR02	13	Jose Carvajal Martinez, Spain
MAR11	18	Bernard Markowski, Poland
MAR12	18	Leszek Marcinek, Poland
MAR13	18	Jerzy Marcinek, Poland
MER05	07	Cliff Meredith, Manchester, U.K.
MEY	28	Maik Meyer, Germany
MIT	16	Shigeo Mitsuma, Saitama, Japan
MIY01	16	Osamu Miyazaki, Ibaraki, Japan
MOE		Michael Moeller, Germany
MOM	16	Masahiko Momose, Nagano, Japan
MOR04	37	Vladimir G. Mormyl, Ukraine
MOR08	37	Alexandra M. Mormyl, Ukraine
MOR09		Philippe Morel, France
*MUR02	16	Shigeki Murakami, Niigata, Japan
NAG08	16	Yoshimi Nagai, Yamanashi, Japan
NAK01	16	Akimasa Nakamura, Ehime, Japan
NAV01		Ramon Naves, Barcelona, Spain
NED	23	Martin Nedved, Praha, Czech Rep.
NEV	42	V. S. Nevski, Vitebsk, Belarus
ORI	16	T. Oribe, Saji, Tottori, Japan
OSS	18	Piotr Ossowski, Poland
PAR03	18	M. L. Paradowski, Poland
PIL	18	A. Pilecka, Gdynia, Poland
POW01	18	Jacek Powichrowski, Poland
PRI04	15	D. Pringlewood, Harare, Zimbabwe
RAE		Stuart T. Rae, New Zealand
RES	18	M. Reszelski, Szamotuly, Poland
ROM	42	A. M. Romancev, Pinsk, Belarus
RZE	18	Zbigniew Rzepka, Poland
RZE01	18	Marcin Rzepka, Poland
SAD	18	Piotr Sadowski, Poland
SAJ	32	Andras Sajtz, Satu-Nou, Romania
SAL02	35	Erwin Salazar G., Cusco, Peru
SAN04	38	Juan Manuel San Juan, Spain
SAR02	32	K. Sarneczky, Budapest, Hungary
SCH04	11	A. H. Scholten, The Netherlands
SCI		Tomasz Sciezor, Poland
SEG	38	Carlos Segarra, Valencia, Spain
SER	42	Ivan M. Sergey, Belarus
SER02		Jerome Serant, Chevillon, France
*SER03	42	Leonid V. Serebrennikov, Belarus
SHA02	07	J. D. Shanklin, Cambridge, U.K.
SHU	42	S. E. Shurpakov, Baran, Belarus
SIE	33	Henryk Sielewicz, Lithuania
*SIE01	18	Marcin Siekierko, Poland
SIK01	18	M. Sikora, Lublin, Poland
SIW	18	Ryszard Siwiec, Poland
SKR	18	E. Skrzynecki, Krosno, Poland
SMY	18	J. Smyslo, Busko Zdroj, Poland
SOU01	35	Willian C. de Souza, Brazil
SOW	16	Toshihide Sowa, Wakayama, Japan
SPE01	18	Jerzy Speil, Poland
*SRE	18	Mariusz Sredzinski, Poland
STO03	07	David Storey, Oxfordshire, U.K.
STR03	15	Magda Streicher, South Africa
SWI	18	Mariusz Swietnicki, Poland
SZC	07	Stefan Szczyrbak, Norfolk, U.K.
SZC01	18	Robert Szczerba, Sieradz, Poland
TAK05	16	Kesao Takamizawa, Nagano, Japan
TIC		Milos Tichy, Klet, Czech Rep.
*TOB	18	Dariusz Tober, Lublin, Poland
*TRE03	18	Aleksander Trebacz, Poland
TRI		J. M. Trigo i Rodriguez, Spain
TSU02	16	M. Tsumura, Wakayama, Japan
*TUR01	18	Pawel Turek, Krakow, Poland
VET		J. C. Vetterlein, Orkney, U.K.
WAL03	18	L. Walec, Stalowa Wola, Poland
WAR02	07	Donald Ward, Victoria, Australia
WAT01	16	Nobuo Watanabe, Niigata, Japan
*WIR01	18	Piotr Wirkus, Lebork, Poland
WLO	18	Robert Wlodarczyk, Poland
*WOL03	23	Jan Woloszcuk, Czech Rep.
YOS02	16	K. Yoshimoto, Yamaguchi, Japan
YOS04	16	Seiichi Yoshida, Ibaraki, Japan
YUM	35	Raquel Yumi Shida, Brazil
ZAN		Mauro Vittorio Zanotta, Italy
ZAN01	11	W. T. Zanstra, The Netherlands
ZNO	23	Vladimir Znojil, Czech Republic

◇ ◇ ◇

TABULATED VISUAL DATA (also format for old-style CCD data)

NOTE: As begun in the October 2001 issue, the CCD and visual tabulated data are separated. The tabulated CCD data in this issue are further separated into two "CCD" sections: the first in the old format for those observations submitted only in the old format, and the second in the new format (where the columns are described on page 208).

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

Green (*ibid.*), the letters 'a', 'w', or 's', respectively, should be used; x indicates that a secondary source (often amateur computer software) was used to get supposedly correct comparison-star magnitudes from an accepted catalogue].

"MM" = the method employed for estimating the total (visual) magnitude; see article on page 186 of the Oct. 1996 issue [B = VBM method, M = Morris method, S = VSS or In-Out method, I = in-focus, C = unfiltered CCD, c = same as 'C', but for 'nuclear' magnitudes, V = electronic observations — usually CCD — with Johnson *V* filter, *etc.*]. "MAG." = total (visual) magnitude estimate; a colon indicates that the observation is only approximate, due to bad weather conditions, *etc.*; a left bracket ([) indicates that the comet was not seen, with an estimated limiting magnitude given (if the comet IS seen, and it is simply estimated to be fainter than a certain magnitude, a "greater-than" sign (>) must be used, not a bracket). "RF" = reference for total magnitude estimates (see pages 98-100 of the October 1992 issue, and Appendix C of the *ICQ Guide to Observing Comets*, for all of the 1- and 2-letter codes; an updated list is also maintained at the *ICQ* World Wide Website). "AP." = aperture in centimeters of the instrument used for the observations, usually given to tenths. "T" = type of instrument used for the observation (R = refractor, L = Newtonian reflector, B = binoculars, C = Cassegrain reflector, A = camera, T = Schmidt-Cassegrain reflector, S = Schmidt-Newtonian reflector, E = naked eye, *etc.*). "F/" and "PWR" are the focal ratio and power or magnification, respectively, of the instrument used for the observation — given to nearest whole integer (round even); note that for CCD observations, in place of magnification is given the exposure time in seconds [see page 11 of the January 1997 issue; a lower-case "a" indicates an exposure time under 1000 seconds, an upper-case "A" indicates an exposure time of 1000-1999 seconds (with the thousands digit replaced by the "A"), an upper-case "B" indicates an exposure time of 2000-2999 seconds (with the thousands digit replaced by the "B"), etc.].

"COMA" = estimated coma diameter in minutes of arc; an ampersand (&) indicates an approximate estimate; an exclamation mark (!) precedes a coma diameter when the comet was not seen (*i.e.*, was too faint) and where a limiting magnitude estimate is provided based on an "assumed" coma diameter (a default size of 1′ or 30″ is recommended; cf. *ICQ* **9**, 100); a plus mark (+) precedes a coma diameter when a diaphragm was used electronically, thereby specifying the diaphragm size (i.e., the coma is almost always larger than such a specified diaphragm size). "DC" = degree of condensation on a scale where 9 = stellar and 0 = diffuse (preceded by lower- and upper-case letters S and D to indicate the presence of stellar and disklike central condensations; cf. July 1995 issue, p. 90); a slash (/) indicates a value midway between the given number and the next-higher integer. "TAIL" = estimated tail length in degrees, to 0.01 degree if appropriate; again, an ampersand indicates a rough estimate. Lower-case letters between the tail length and the p.a. indicate that the tail was measured in arcmin ("m") or arcsec ("s"), *in which cases the decimal point is shifted one column to the right.* "PA" = estimated measured position angle of the tail to nearest whole integer in degrees (north = 0^o, east = 90^o). "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); these Keys (with the exception of the Observer Codes) are also now available in the new *Guide to Observing Comets* and via the *ICQ*'s World Wide Web site. *Please note that data in archival form, and thus the data to be sent in machine-readable form, use a format that is different from that of the Tabulated data in the printed pages of the ICQ;* see pages 59-61 of the July 1992 issue, p. 10 of the January 1995 issue, and p. 100 of the April 1996 issue for further information [note correction on page 140 of the October 1993 issue]. Further guidelines concerning reporting of data may be found on pages 59-60 of the April 1993 issue, and in the *ICQ Guide to Observing Comets.*

◇ ◇ ◇

Visual Data

Comet 7P/Pons-Winnecke

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 06.02	x	S	13.3	HS	20	L	5	110	0.8	2/			POW01

Comet 19P/Borrelly

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 05.95		S	11.7	TK	35	L	5	68	2.1	2/			HOR02

Comet 29P/Schwassmann-Wachmann

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 16.06		M	12.1	NP	45	L	5	100	1	3			SAN04
2002 06 16.06		M	12.3	NP	45	L	5	100	2	3			MAR02
2002 06 16.19		S	13.0	TK	20	L		80	1	0			HOD01
2002 07 07.02		S	12.0	NP	45	L	5	91	5	2			MAR02
2002 07 07.02		S	12.3	NP	45	L	5	91	5	2			SAN04
2002 07 08.99		M	12.4	HS	42	L	5	81	2				LEH
2002 07 09.99		M	12.4	HS	42	L	5	81	2				LEH
2002 07 11.64		S[	11.9	HS	25.4	T	6	116	! 1.6				YOS04

Comet 57P/du Toit-Neujmin-Delporte

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 07 10.95		S	14.1	HS	38	L	4	126	1.3	2			SAR02
2002 07 28.87		S	12.9	AC	41	L	5	121	0.7	2/			RES

Comet 65P/Gunn

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 02.98		S	13.7	AC	41	L	5	121	0.6	4/			RES
2002 05 03.86		S	13.7	AC	41	L	5	121	0.6	4/			RES
2002 05 03.94		S	14.3	HS	35	L	5	237	0.6	3/			HOR02
2002 05 05.90	x	S	13.4	HS	20	L	5	110	0.6	4			POW01
2002 05 05.92		S	13.7	AC	41	L	5	121	0.7	4			RES
2002 05 06.85		S	13.8	AC	41	L	5	121	0.6	4			RES
2002 05 06.89		S	14.2	HS	35	L	5	237	0.7	3			HOR02
2002 05 07.91		S	13.7	AC	41	L	5	121	0.7	4/			RES
2002 05 09.87		S	14.2	HS	35	L	5	237	0.8	3			HOR02
2002 05 09.88		S	13.7	AC	41	L	5	121	0.7	4/			RES
2002 05 11.88	x	S	13.4	HS	20	L	5	110	0.7	3/			POW01
2002 05 11.88		S	13.7:	AC	41	L	5	121	& 0.7	4/			RES
2002 05 11.89	x	S	13.6	TT	20	L	5	110	1.1	2/			SIE01
2002 05 15.93		S	13.8	AC	41	L	5	121	0.6	4/			RES
2002 05 16.87		S	13.7	AC	41	L	5	121	0.6	4/			RES
2002 05 17.87		S	13.7	AC	41	L	5	121	0.7	4			RES
2002 06 12.88		S	14.0	HS	35	L	5	237	0.7	2			HOR02

Comet 153P/2002 C1 (Ikeya-Zhang)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 02.73		S	8.6	TT	13	L	8	69	3.1	3			HOR02
2002 02 02.96		S	9.0	TT	8.0	B		11		7/			DES01
2002 02 03.71	x	S	7.8	TJ	25	L	6	54	3	4			SWI
2002 02 03.72	x	S	8.7:	TJ	31.7	L	5	47	& 2.5	4			ADA02
2002 02 03.74		S	8.2	AA	5.0	B		7	4.5	3			BEG01
2002 02 03.75		S	8.7	TI	7.6	L	9	35	4				CER01
2002 02 03.95		S	8.7	TT	8.0	B		11		7/			DES01
2002 02 04.69	x	S	8.1	TJ	20	L	5	50	2.6	4			POW01
2002 02 04.70	x	S	8.3	TJ	20	L	5	50	2.3	4/			BUR04
2002 02 04.72	x	S	7.9	TT	15	L	6	50	& 2.7	4/			MAK02
2002 02 04.72	x	S	8.0	TT	30	L	4	47	4	4			GRA09
2002 02 04.72	x	S	8.5:	TJ	31.7	L	5	47	& 2.5	4			ADA02
2002 02 05.71	x	S	7.5	TJ	6.5	R	6	28	3	4			SWI
2002 02 05.72	x	B	7.2:	TT	6.6	B		20	& 4	4/			FIL04
2002 02 05.73		B	8.4	AA	25.0	L	4	60	4	4			PRI04
2002 02 05.73	x	B	8.4:	TJ	31.7	L	5	47	& 3	5			ADA02
2002 02 05.74		B	8.0	AA	5.0	B		7	3	4			BEG01
2002 02 05.75		B	8.6	AA	10.0	L	8	55	5	4			PRI04
2002 02 05.76		B	8.3	AA	15.0	L	7	50	3.8	5	4 m		BEG01
2002 02 07.75		B	8.1	AA	5.0	B		7	3	6			BEG01
2002 02 08.73		M	7.4	TT	8.0	B		10	6	3			HOR02
2002 02 08.75		B	7.6	AA	5.0	B		7	6	5			BEG01
2002 02 09.72	x&	M	8.0:	TJ	8.0	L	7	35	& 3	d4			KOS01
2002 02 10.73		M	7.1	TT	8.0	B		10	6	4/			HOR02
2002 02 11.72		B	7.5	AA	5.0	B		10		5			PRI04
2002 02 11.74		B	7.8	AA	25.0	L	4	55	3	6			PRI04
2002 02 11.74		M	7.3	AA	5.0	B		7	6.5	6			BEG01
2002 02 11.75		S	7.9	AA	40.0	L	4	72	2	5			COO02
2002 02 12.71	x&	B	7.8	TJ	10	M	10	56	3	3			MAR12
2002 02 12.74		S	7.3:	AA	5.0	B		7	5	6			BEG01
2002 02 12.74		S	7.5	AA	15.0	L	7	50	4.2	7			BEG01
2002 02 12.75		B	7.6	AA	10.0	L	10	50	3	5			PRI04
2002 02 13.71	x&	B	7.2:	TT	15	L	6	50	& 3.2	4/			MAK02
2002 02 13.73		B	7.4	AA	25.0	L	4	55	3	7			PRI04
2002 02 13.75		S	7.2	AA	5.0	B		7	7	7	20 m	78	BEG01
2002 02 14.71	x&	B	7.0	TT	15	L	6	50	& 3.8	4/			MAK02
2002 02 14.72	x	B	6.8	TJ	20	L	5	50	4.5	D5			POW01
2002 02 14.72	x	B	7.1	TJ	6.0	B		30	5	6			BUR04

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 14.72	x	B	7.4	TT	30	L	4	47	4	5/			GRA09
2002 02 14.72	x	B	7.6	TT	5	R	6	20	4	S6/			GRA09
2002 02 14.73	x	B	6.9	TJ	6.0	B		30	5	5			POW01
2002 02 14.74		B	7.0	S	5.0	B	4	7	4	6	0.33	65	KOU
2002 02 14.74		B	7.2	TI	5.0	B	5	10	6	6	0.5	80	CER01
2002 02 14.75		M	7.1	TI	5.0	B		7	6	6			KYS
2002 02 15.71	x	S	7.0	TJ	5.0	B		10	7	5			SWI
2002 02 15.71		S	7.5	AA	5.0	B		7	4	6			KOS
2002 02 15.73	x	B	6.9	TT	15	L	6	50	3.2	5			MAK02
2002 02 15.73	x	B	7.3	TT	6.7	B		20	3	6			SCI
2002 02 15.74		B	7.0	AA	25.0	L	4	25	3	7			PRI04
2002 02 15.74		B	7.1	TI	7.6	L	9	18	5	7	0.40	85	CER01
2002 02 15.74	x	B	7.6	TT	6.6	B		20	& 7	6			FIL04
2002 02 15.74		S	6.7	AA	5.0	B		7	5	7	5 m	80	BEG01
2002 02 16.72	x	B	6.8	TJ	20	L	5	50	4.5	D5/			POW01
2002 02 16.72	x	B	6.9:	TT	15	L	6	50	4.0	5			MAK02
2002 02 16.73		S	7.4	AC	6.3	R	13	52	3	s6	0.5	65	KOS
2002 02 16.74		B	6.8	TI	5.0	B	5	10	5	7			CER01
2002 02 16.75	x	B	7.5	TT	6.6	B		20	& 7	6			FIL04
2002 02 16.78	!	S	7.5:	TK	25.6	L	5	42	2.5	6	0.1	90	BIV
2002 02 16.78	x&	M	7.0	TJ	8.0	L	7	35	4	4/			KOS01
2002 02 17.72	x	B	6.9	TJ	20	L	5	50	4.4	D5/			POW01
2002 02 17.72	x	B	6.9:	TT	15	L	6	50	& 4.2	5/			MAK02
2002 02 17.72	x	B	7.3	TT	20	L	5	50	3	5			BAR10
2002 02 17.73		S	7.8	AA	5.0	B		7	3				KOS
2002 02 17.78	x&	M	7.0	TJ	8.0	L	7	35	4	4/			KOS01
2002 02 18.75		B	6.7	AA	5.0	B		10		6			PRI04
2002 02 18.75		B	7.0	AA	25.0	L	4	25	3	7	9 m	73	PRI04
2002 02 19.72		B	6.7:	AA	25.0	L	4	25		6			PRI04
2002 02 20.72		B	7.2:	AA	25.0	L	4	60		5			PRI04
2002 02 22.73		S	6.1:	AA	5.0	B		7	6	6			BEG01
2002 02 23.72	x	B	6.4	TT	15	L	6	30	4.2	4			MAK02
2002 02 23.72	x&	B	6.0:	TJ	5.0	B		10	3	s3/			MAR12
2002 02 24.73	x	B	6.4	TT	15	L	6	30	4	5			MAK02
2002 02 24.74	x	B	6.4	TT	6.6	B		20	& 4	6			FIL04
2002 02 24.76		S	5.9	AA	8.0	B		20	2	9			BAR
2002 02 25.72		S	6.5:	AA	5.0	B		10		5	20 m	75	PRI04
2002 02 27.72		M	5.4:	AA	5.0	B		7	4	6	20 m	86	BEG01
2002 02 28.72		S	5.2	AA	5.0	B		10	6	7			PRI04
2002 02 28.72		S	5.3	AA	5.0	B		7	6	8	1.1	85	BEG01
2002 02 28.74	x&	B	6.2	TJ	5.0	B		10	1	s5	0.15	90	MAR12
2002 02 28.74	x&	M	6.3	TJ	8.0	L	7	35	4	D5			KOS01
2002 02 28.74	xa	M	5.8	TJ	8	R	7	35	2	S4/	0.9	89	KWI
2002 02 28.74	xw	B	5.7	TT	6.0	B		20	& 3	6/	&0.3	60	SCI
2002 02 28.74	xw	B	5.8	TJ	6.0	R	11	28	4	s5/			SMY
2002 02 28.74	xw	B	6.0	TJ	5.0	B		12	5	5/			SMY
2002 02 28.75	x	B	6.3	TT	5.0	B		10	4	7			KEZ
2002 02 28.75	x	B	6.6:	TT	15	L	6	100	3.5	6/			KEZ
2002 02 28.78	x&	B	6.1	TJ	5.0	B		10	0.8	d5	&0.2	66	MAR13
2002 03 01.72		S	5.1	AA	5.0	B		7	4	8	1.8	83	BEG01
2002 03 01.72		S	5.1	AA	5.0	B		10	6	8	1.3	75	PRI04
2002 03 01.73	x&	B	6.0	TJ	5.0	B		10	1	s5			MAR12
2002 03 01.74	x	B	5.7	TT	5.0	B		10	4	7			KEZ
2002 03 01.74	x&	B	5.7:	TT	15	L	6	30	4.2	D6			MAK02
2002 03 01.74	xw	B	5.8	TJ	5.0	B		12	4	5/			SMY
2002 03 01.79		S	6.0:	TJ	7.0	B		15		8			MER05
2002 03 02.72		S	5.0	AA	5.0	B		10	4	8	1.1	72	PRI04
2002 03 02.73	x	B	5.1	TT	6.0	B		30	6	D7/	0.8	87	POW01
2002 03 02.73		S	4.9	AA	5.0	B		7	3	8	1.6	76	BEG01
2002 03 02.74	x&	M	5.7	TJ	8.0	L	7	21	5	D5/	0.6	80	KOS01
2002 03 03.73	x	B	4.9	TT	6.0	B		30	6	D8	0.7	82	POW01
2002 03 03.73	x	B	5.3:	TT	5.0	B		10	4.0	D6/	0.7	89	MAK02
2002 03 03.74	x&	B	5.5	TT	6.6	B		20	& 4	7	&0.55	72	FIL04
2002 03 03.74	x&	M	5.5	TJ	8.0	L	7	21	5	D5/	0.7	78	KOS01
2002 03 03.74	xw	B	5.0	TT	6.0	B		20	& 4	6/	&0.4	75	SCI

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 03.75	x&	B	5.4	HK	5.0	B		15	& 4	S6/	&0.5	69	GOL05
2002 03 03.76		S	5.4	AA	8.0	B		20	4	8			BAR
2002 03 03.77		S	5.6	AA	5.0	B		7	4	9			BAR
2002 03 04.76		B	4.8	S	5.0	B	4	7	7	6	0.67	75	KOU
2002 03 04.76		M	5.2	AA	6.0	B		20	7	S6	3	75	CSU
2002 03 04.82		S	4.5	TJ	5.0	B		7	5	7	10 m	80	VET
2002 03 05.71	x	B	5.5	TJ	35	L	6	105	3	S7	40 m		CHR
2002 03 05.73	!	B	4.8	AA	5.0	B		7	4	8	1.8	77	BEG01
2002 03 05.73	x&	B	5.4	TJ	5.0	B		10	1	s5	0.15	85	MAR12
2002 03 05.75		S	5.0	AA	5.0	B		7	4	s9	2.2	40	KOS
2002 03 05.75	x&	B	5.1	TT	6.0	B		12	5	8	&0.1	70	DUS
2002 03 05.76		B	4.5	S	5.0	B	4	7	6	7	0.83	70	KOU
2002 03 05.78	x&	B	5.4:	TJ	6.0	B		10	1	s5			KIS03
2002 03 05.78	x&	B	5.6	TJ	5.0	B		10	0.8	d5	0.3	68	MAR13
2002 03 06.71	x&	B	5.0	TJ	6.0	B		10	& 7	7			TOB
2002 03 06.72	x	B	5.3	TJ	35	L	6	105	3	S7	40 m		CHR
2002 03 06.73	x	B	5.6	TJ	5.0	B		7	& 5	7	&0.3		SAD
2002 03 06.73	xa	B	4.8	TT	6.0	B		20	& 7	7	&1.2	60	SCI
2002 03 06.74	x	B	5.8	TJ	11	L	7	32	4	D5	0.33	80	SAD
2002 03 07.73	x&	B	4.4:	TT	5.0	B		10	3	6	0.6	77	MAK02
2002 03 07.74	x&	B	4.5:	TJ	5.0	B		10	1	s6	0.5	70	MAR12
2002 03 07.74	x&	M	5.1	TJ	8.0	L	7	21	5	D6	0.6	77	KOS01
2002 03 07.75		B	4.4	S	5.0	B	4	7	12	7	1.67	75	KOU
2002 03 07.76		B	4.6	S	5.0	B	4	7	10	6	1.25	70	WOL03
2002 03 07.76		B	4.6	S	6	R	6	25	8	6/	1.17	80	KOU
2002 03 07.76	x&	B	5.1	HK	5.0	B		15	& 4	7	&0.58	71	GOL05
2002 03 07.77		B	4.3	S	5.0	B	4	7	15	7	1.08	80	GOR06
2002 03 07.77		S	4.8	AA	8.0	B		20	6	8			BAR
2002 03 07.83		S	4.2	TJ	5.0	B		7	6	7	1.2	70	VET
2002 03 08.71	x&	B	4.3	TJ	5.0	B		10	0.9	d6	0.45	70	MAR13
2002 03 08.74	x	B	4.3	TJ	25	L	6	54	2.5	7	&1		SWI
2002 03 08.74	x	B	4.8	TT	20	L	5	30	5.5	D8	0.9	76	POW01
2002 03 08.74	x	B	5.2	TJ	35	L	6	105	& 4	S7	&1.0		CHR
2002 03 08.74	x&	B	4.5	TJ	5.0	B		10	1	s6	0.5	70	MAR12
2002 03 08.74	x&	M	4.9	TJ	8.0	L	7	21	6	D6/	0.8	75	KOS01
2002 03 08.75	x	B	4.2	TJ	6.0	B		20	3	8	1.3		ADA02
2002 03 08.75	x	B	4.6	TT	6.0	B		30	5	D8	0.7	75	POW01
2002 03 08.75	x	B	5.1	TJ	6.0	B		20	& 8	D6	&0.5		WL0
2002 03 08.75		S	4.8	AA	5.0	B		7	5	s9	3.6	72	KOS
2002 03 08.75	x&	B	4.5	TT	5.0	B		10	4	6	0.6	73	MAK02
2002 03 08.75	xa	B	4.8	TT	6.0	B		20	& 4	7	&0.8	70	SCI
2002 03 08.76	x	B	4.5	TT	5.0	B		10	5	6/	0.7	68	KEZ
2002 03 08.76	x	B	5.2	TJ	11	L	7	32	2.9	6/	0.7	70	SAD
2002 03 08.76	x$	B	5.1	SC	6.0	B		20	5	7	&0.83	80	KID01
2002 03 08.76	x&	B	5.0	HK	5.0	B		15	& 5	7	&0.75	71	GOL05
2002 03 08.76	x&	B	5.2	TJ	5.0	B		12	4	S6/	0.5	68	SMY
2002 03 08.76	x&	B	5.3	TJ	5.0	B		7	4	S6/	0.5	68	SMY
2002 03 08.77		M	5.0	AA	6.0	B		20	5	S7		75	CSU
2002 03 08.77	x$	B	4.6	TT	4.0	B		8	3.5	7/	1.1	70	GRA09
2002 03 08.77	x&	B	4.8	TT	5.0	B		7	& 3	7	&0.75	69	FIL04
2002 03 08.77	x&	B	5.2	TJ	13	L	5	65	4	S6/	&20 m	68	SMY
2002 03 08.78	x!	B	4.8	TJ	5.0	B		10	4	d6	&0.2	70	TRE03
2002 03 09.70	x&	B	4.2	TJ	4.0	B		8	1	d6	0.4		MAR13
2002 03 09.71		S	4.5	AA	5.0	B		10	4	8	1.5	65	PRI04
2002 03 09.72	x	B	5.0	TJ	35	L	6	105	& 4	S7	&1.0		CHR
2002 03 09.74	x&	B	4.8	TJ	6.0	B		10	& 7	8	&0.9	60	TOB
2002 03 09.74	xa	B	4.5	TT	6.0	B		20	& 3	7	&1.2	67	SCI
2002 03 09.74	xa	M	5.3	TJ	8	R	7	35	3	S5	1.0	83	KWI
2002 03 09.75	x	B	4.8	TJ	11	L	7	32	3.5	6	0.9	68	SAD
2002 03 09.76		B	4.3	S	5.0	B	4	7	12	6/	1.58	80	KOU
2002 03 09.77	x!	B	4.7	TJ	5.0	B		10	5	d7	&0.4	70	TRE03
2002 03 10.70		S	4.2:	AA	5.0	B		10	5	8	2.0	75	PRI04
2002 03 10.71	x&	B	4.1	TJ	4.0	B		8	1	d6			MAR13
2002 03 10.72		S	4.1	AA	5.0	B		7	3	8	3.8	73	BEG01
2002 03 10.74	x	B	4.2	TJ	6.5	R	6	28	2	7			SWI

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 10.74	x&	B	4.4	TJ	5.0	B		10	1	s6/	0.5	70	MAR12
2002 03 10.74	x&	B	4.7	TT	5.0	B		10	4	7	&1	70	MAK02
2002 03 10.74	x&	M	4.7	TJ	8.0	L	7	21	5	7	0.9	70	KOS01
2002 03 10.74	xa	M	4.8	TJ	8	R	7	35	3	S5/	1.2	76	KWI
2002 03 10.75	x	B	4.3	TJ	6.0	B		20	6	8	3	80	PAR03
2002 03 10.75	x	B	4.5:	TJ	11	L	7	32	3.9	6	0.75	65	SAD
2002 03 10.75	x	B	4.7	TT	15	L	6	45	5	D8	0.9	76	SIE01
2002 03 10.75	xw	B	4.3	TT	6.0	B		20	& 4	7	&1.6	66	SCI
2002 03 10.75	xw	B	4.7	TT	5.0	B		7	& 5	7	&1.5	71	FIL04
2002 03 10.76	x	B	4.5:	TI	6.0	B		20	& 3.5	D6			BAL05
2002 03 10.76		M	4.6	AA	6.0	B		20	4	S7		72	CSU
2002 03 10.76		S	4.2	AA	5.0	B		7	5	s9	4.2	73	KOS
2002 03 10.76		S	4.6	AA	8.0	B		20	6	8			BAR
2002 03 10.76	x&	B	4.8	TJ	5.0	B		7	3	S7	1.3	67	SMY
2002 03 10.76	x&	B	4.9	TJ	5.0	B		12	3	S7	1.1	67	SMY
2002 03 10.77	x	B	4.5	TT	4.0	B		8	3	7/	2.3	65	GRA09
2002 03 10.77	x	I	4.6	TT	0.0	E		1	1	9			GRA09
2002 03 10.77	x$	B	4.9	SC	6.0	B		20	6	7/	&1.32	78	KID01
2002 03 10.78	x	B	4.8	TJ	6.0	B		20	& 8	D6	&1.0		WL0
2002 03 10.78	x&	B	4.7	TJ	6.0	B		10	7	S6	0.6	60	KIS03
2002 03 10.80	x	B	4.7	HS	5.0	B		10	10	S6	&2	50	TUR01
2002 03 11.70		S	4.0:	AA	5.0	B		10	5	8	2.5	75	PRI04
2002 03 11.72	x	B	4.8	TJ	35	L	6	105	& 4	S7	1.0		CHR
2002 03 11.72		M	4.6	TI	8.0	B		12	3	S8	2		BAR06
2002 03 11.72	x&	B	4.1	TJ	5.0	B		10	1.0	D7	3.5	68	MAR13
2002 03 11.73		S	3.8	AA	5.0	B		7	3	8	6.1	72	BEG01
2002 03 11.74	x	B	4.8:	TT	5.0	B		10	3.5	7	&1	70	MAK02
2002 03 11.74	x&	B	4.4	TJ	5.0	B		10	1	S7	3.5	68	MAR12
2002 03 11.74	x&	B	4.4	TJ	6.0	B		10	& 7	7/	&1.0	60	TOB
2002 03 11.74	x&	M	4.7	TJ	8.0	L	7	21	6	S7	1.0	70	KOS01
2002 03 11.74	xa	M	4.5	TJ	8	R	7	35	3	S6	1.1	74	KWI
2002 03 11.75	x	B	4.1	TJ	25	L	6	54	3	7			SWI
2002 03 11.75	x	B	4.6:	TT	6.0	B		20	& 3	6	&1.0	65	SCI
2002 03 11.75	x	B	4.8	TT	20	L	6	29	3	S7	1.1	68	WAL03
2002 03 11.75		S	4.0	AA	5.0	B		7	5	s9	5.0	71	KOS
2002 03 11.75	x!	B	4.1	TJ	5.0	B		10	4	d8	&1.5	70	TRE03
2002 03 11.76		B	4.1	S	5.0	B	4	7	10	6/	2.17	75	KOU
2002 03 11.76	x	B	5.1	TJ	3	R	5	6	4.4	5/	1.9	65	SAD
2002 03 11.76	x&	B	4.5	TJ	5.0	B		12	3	S7	1.5	66	SMY
2002 03 11.76	x&	B	4.6	TJ	5.0	B		7	3	S7	&2	66	SMY
2002 03 11.76	xa	B	4.8	TJ	11	L	7	32	4.1	D7	1.4	66	SAD
2002 03 11.76	xw	B	4.5	TT	5.0	B		7	& 5	7	&2.0	70	FIL04
2002 03 11.77	x	B	5.0	TJ	6.0	B		20	& 7	D5	&1.0		WL0
2002 03 11.77		S	4.4	AA	8.0	B		20	6	8	1	45	BAR
2002 03 11.77	x&	B	4.3	TJ	13	L	5	22	4	S7	1.8	66	SMY
2002 03 11.78	x&	B	5.9:	TJ	6.0	B		12	& 3	S6/	&2	320	JAR01
2002 03 11.79		S	6.0	TJ	7.0	B		15	5	8			MER05
2002 03 11.83		S	5.0	TJ	8.0	B		20		7	2.7	66	STO03
2002 03 11.83	x&	B	4.6	TJ	6.0	B		10	8	D6	&3	60	KIS03
2002 03 12.73	x	B	4.8	TJ	35	L	6	105	& 4	S7	&1.0		CHR
2002 03 12.73	x	B	4.8	TT	5.0	B		10	& 3	6	&1	64	MAK02
2002 03 12.75	x	B	4.0	TJ	5.0	B		10	3	7			SWI
2002 03 12.75	x&	M	4.6	TJ	8.0	L	7	21	6	S7	1.0	68	KOS01
2002 03 12.76		B	4.0	S	5.0	B	4	7	12	7	2.67	70	KOU
2002 03 12.76		M	4.6	AA	6.0	B		20	4	S7		72	CSU
2002 03 12.76		S	3.9	AA	5.0	B		7	5	s9	5.2	65	KOS
2002 03 13.71	x&	B	4.1:	TJ	8.0	B		10	1.0	D7	3		MAR13
2002 03 13.72		M	4.2	TI	8.0	B		12	4	S8	2		BAR06
2002 03 13.73	x&	B	3.9	TJ	6.0	B		10	& 7	7	&1	65	TOB
2002 03 13.75	x	B	3.9	TJ	5.0	B		10	3	7	&2.5		SWI
2002 03 13.75	x&	B	4.0	TJ	6	R	12	53	& 7	6	&1	65	TOB
2002 03 13.75	xa	B	4.0	TT	6.0	B		20	& 2	6/	&2.0	64	SCI
2002 03 13.76		B	3.5	S	5.0	B	4	7	13	7	3.67	70	WOL03
2002 03 13.76		B	3.6	S	5.0	B	4	7	15	7	4.17	70	KOU
2002 03 13.76	x	B	4.0	TT	5.0	B		10	6	8	1.5	76	KEZ

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 13.76	x&	B	4.0	HK	5.0	B		15	5	7	&1.5	68	GOL05
2002 03 13.77		B	3.8	S	5.0	B	4	7	15	6	3.33	75	GOR06
2002 03 13.77		B	3.8	S	6	R	6	25	10	6/	2.83	65	KOU
2002 03 13.77	x	B	3.8	TJ	6.0	B		20	& 5	7	&1.2		WLO
2002 03 13.77	x	B	4.9	TT	20	L	6	29	3	S7	1.2	62	WAL03
2002 03 13.77		M	4.3	AA	6.0	B		20	4	S7		72	CSU
2002 03 13.77	x!	B	3.9	TJ	5.0	B		10	4	d8	&2	70	TRE03
2002 03 13.77	x&	B	4.5	TJ	5.0	B		7	3	7	1.3	66	SMY
2002 03 13.77	x&	B	4.5	TJ	5.0	B		12	4	7	1.0	66	SMY
2002 03 13.77	xw	B	4.0	TT	5.0	B		7	& 7	7	&2.5	71	FIL04
2002 03 13.80		S	5.0	SC	8.0	B		11					GAI
2002 03 13.80	x&	B	4.2	TJ	6.0	B		10	6	D6	3.0	60	KIS03
2002 03 13.80	x&	B	4.4	TJ	8.0	B		10	5	D7	1.5	73	SIK01
2002 03 13.81		S	4.0:	TJ	7.0	B		15	&10	8	1.5	85	MER05
2002 03 13.84		S	3.6	TJ	5.0	B		7	8	6	3	60	VET
2002 03 13.84		S	4.1	TJ	8.0	B		20		7	2.3	63	STO03
2002 03 14.73		M	4.3	TI	8.0	B		12	3	S8	3		BAR06
2002 03 14.74		B	3.7	TJ	5.0	B		7	2	7	3.5	65	CHE03
2002 03 14.76		S	3.7	AA	5.0	B		7	5	s9	5.2	61	KOS
2002 03 14.84		B	3.9	TJ	0.7	E		1		8			CHE03
2002 03 14.84		S	4.0:	HI	4.0	B		8		9	1.0	60	MAC04
2002 03 14.85		S	3.2	TJ	5.0	B		7	8	6	3.5	55	VET
2002 03 15.73	x	B	4.4:	TT	5.0	B		10	4	6	&1.5	66	MAK02
2002 03 15.74		B	3.6	TJ	5.0	B		7	2	7	3.4	70	CHE03
2002 03 15.75	xa	B	3.5	TT	6.0	B		30	6	D9	2.6	65	POW01
2002 03 15.76	x	B	4.4:	TT	15	L	6	45	5.2	D7	&0.7	63	SIE01
2002 03 15.76	x&	M	4.5	TJ	8.0	L	7	21	5	7	1.2	66	KOS01
2002 03 15.77	x&	B	3.9	SC	6.0	B		20	3	8	&1.83	65	KID01
2002 03 15.78	x	B	3.5	TT	6.0	B		30	6	D7	&1	65	BAR10
2002 03 15.85		S	3.2	TJ	5.0	B		7	8	6	4	50	VET
2002 03 16.70		S	3.9:	AA	3.5	B		7	7	7	1.5	75	PRI04
2002 03 16.71	!	S	3.6	AA	5.0	B		7	3	8	5.1	64	BEG01
2002 03 16.73	x	B	4.4	TT	5.0	B		10	3	6	0.9	66	MAK02
2002 03 16.74	x	B	3.5	TJ	5.0	B		7	6	8	5	60	PAR03
2002 03 16.74	x&	B	3.3:	TJ	6.0	B		10	& 7	6	&2.0	70	TOB
2002 03 16.75		B	3.5	TJ	5.0	B		7	2	7	4.0	70	CHE03
2002 03 16.75	x	B	3.5	TJ	6.0	B		20	5	7	4	60	PAR03
2002 03 16.75		B	3.9	TJ	6.0	B		20	6	8	1	35	SIE
2002 03 16.75	x&	B	3.5	TJ	6	R	12	53	& 9	6	&1	70	TOB
2002 03 16.75	xa	B	3.2	TT	6.0	B		30	5	D9	2.5	65	POW01
2002 03 16.76	x	B	3.5	TJ	0.0	E		1	6	8	5	60	PAR03
2002 03 16.76	x&	M	4.5	TJ	8.0	L	7	21	6	7	1.1	65	KOS01
2002 03 16.77	x	I	3.9	TT	0.0	E		1	1	8/	2.5	60	GRA09
2002 03 16.77	x&	B	3.6	SC	6.0	B		20	4	8	2.32	67	KID01
2002 03 16.78	x	B	3.8	TT	4.0	B		8	3	S8	3.3	62	GRA09
2002 03 17.72	x&	B	4.0:	TJ	4.0	B		8	& 1	D7	&0.3		MAR13
2002 03 17.74	x	B	4.0	TT	5.0	B		10	3.3	6/	&1.5	60	MAK02
2002 03 17.74	x&	B	3.3	TJ	6.0	B		10	& 9	6	&2	63	TOB
2002 03 17.75		M	3.6	TI	8.0	B		12	6	S8	5		BAR06
2002 03 17.75		S	3.3	AA	5.0	B		7	5	s9	3.5	60	KOS
2002 03 17.75	x!	B	3.4	TJ	5.0	B		10	4	d8	&1.2	70	TRE03
2002 03 17.75	xa	B	3.7	TT	6.0	B		20	& 2	6	&1.1	55	SCI
2002 03 17.75	xa	M	4.2	TJ	8	R	7	35	3	6	1.2	47	KWI
2002 03 17.76	x	B	3.6	TJ	6.5	R	6	28	3	7			SWI
2002 03 17.76	x	B	3.7	TJ	6.0	B		20	3	7	&2	60	SIW
2002 03 17.76		M	3.4	AA	6.0	B		20	4	S7	10.5	78	CSU
2002 03 17.76	x&	B	4.0	TJ	5.0	B		12	4	S7	0.6	65	SMY
2002 03 17.76	x&	B	4.1	TJ	5.0	B		7	4	7	&1.0	66	SMY
2002 03 17.76	xa	B	3.9	TJ	3	R	5	6	& 5	7	1.7	55	SAD
2002 03 17.76	xa	B	4.1	TJ	11	L	7	32	3.7	7/	0.75	55	SAD
2002 03 17.79	x	B	3.9	S	5.0	B		10	6	S7	&2	62	TUR01
2002 03 18.71	x&	B	3.9:	TJ	4.0	B		8	& 1	D7	&0.35		MAR13
2002 03 18.72	x	B	4.3	TJ	35	L	6	105	& 4	S7	&50 m		CHR
2002 03 18.74		M	3.4	TI	8.0	B		12	6	S7	4		BAR06
2002 03 18.75		S	3.1	AA	5.0	B		7	5	s9	6.8	58	KOS

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 18.75	x!	B	3.3	TJ	5.0	B		10	4	d8	&0.7	65	TRE03
2002 03 18.75	x&	B	3.9	TJ	5.0	B		10	1.5	S7	&0.5	65	MAR12
2002 03 18.75	x&	B	3.9:	TJ	5.0	B		10	1.5	S7	&0.5	65	MAR12
2002 03 18.75	x&	B	4.4:	TJ	6.0	B		12	& 9	S6/	&2	310	JAR01
2002 03 18.76	x&	M	4.3	TJ	8.0	L	7	21	5	S7	1.1	65	KOS01
2002 03 18.76	xa	B	3.6:	TT	6.0	B		20	& 3	6	&0.2	55	SCI
2002 03 18.77		M	3.4	AA	6.0	B		20	4	S7	1	60	CSU
2002 03 18.77	x&	B	3.6:	YG	6.0	B		20	&12	S6/	&1.97	45	BAN01
2002 03 18.77	x&	B	3.7	HK	5.0	B		15	4.5	7	&1.5	56	GOL05
2002 03 18.77	x&	B	4.0	TJ	5.0	B		7	4	S7	1.0	65	SMY
2002 03 18.77	xa	B	3.9	TT	5.0	B		7	& 7	7	&2.1	67	FIL04
2002 03 18.78	x	B	3.6	TJ	6.0	B		20	3	7/	&1	60	SIW
2002 03 18.78	x	B	3.8	TJ	6.0	B		20	& 5	6	&0.8		WLO
2002 03 18.78	x	M	3.6:	TJ	6.0	B		20	& 3	8	&1.3		ADA02
2002 03 18.78	x&	B	3.4	SC	6.0	B		20	4	8	2.20	58	KID01
2002 03 18.78	x&	B	4.0	TJ	5.0	B		12	4	S7	0.6	65	SMY
2002 03 18.78	x&	B	4.1	TJ	13	L	5	22	4	S7	1.1	65	SMY
2002 03 19.77		S	3.6	AA	5.0	B		7	6	8	2	45	BAR
2002 03 19.79		B	3.5:	TJ	5.0	B		7	3	7	1		CHE03
2002 03 19.86		S	3.2	TJ	5.0	B		7	8	5	4.5	45	VET
2002 03 20.76	xa	B	3.3	TJ	6.0	B		30	4.5	8	2.1	52	POW01
2002 03 20.78	x	B	3.4	TJ	6.0	B		20	4	8	2.5	60	SIW
2002 03 20.78		S	3.4	AA	5.0	B		7	8	8	3	45	BAR
2002 03 20.80		S	3.6	TJ	5.0	B		10	5	8	4	50	MOE
2002 03 20.82		S	4.5:	HI	8	R	11	18		9	0.3		MAC04
2002 03 20.87		S	3.2	TJ	5.0	B		7	8	5	5	40	VET
2002 03 21.69		B	3.3	SP	5.0	B		7					GOL04
2002 03 21.74	x	B	3.6	TT	15	L	6	45	3	D7/	1.4	49	SIE01
2002 03 21.75	x	B	3.6:	TJ	4.0	B		8	1.2	D7	&2.4		MAR13
2002 03 21.75	x	B	3.7	TJ	5.0	B		10	1.5	S7/	2.0	53	MAR12
2002 03 21.75	xa	B	3.5	TT	6.0	B		30	4.2	8	2.4	52	POW01
2002 03 21.76	x	B	3.5	TT	3.5	B		7	3	D7/	1.9	48	SIE01
2002 03 21.77		M	3.2	TI	8.0	B		12	5	S7	4		BAR06
2002 03 21.77		M	3.2	TI	8.0	B		12	5	S7	4		BAR06
2002 03 21.78		S	3.3	AA	5.0	B		7	7	7	3	45	BAR
2002 03 21.80		S	4.1	SC	8.0	B		11	> 2		>40 m		GAI
2002 03 21.82		S	3.9	SC	8.0	B		11			1.7	47	GAI
2002 03 21.88		S	3.3	TJ	5.0	B		7	8	5	5	40	VET
2002 03 22.74	x	B	3.6:	TJ	4.0	B		8	& 1	D7			MAR13
2002 03 22.75	x	B	4.1	TJ	6.8	R	12	40	& 6	S8	&70 m		CHR
2002 03 22.75		S	2.8	AA	5.0	B		7	5	s9	7.1	55	KOS
2002 03 22.75	x!	B	3.7	TJ	5.0	B		10	6	d7	&1.2	60	TRE03
2002 03 22.75	xw	B	3.2	TT	6.0	B		20	& 7	7	&2.7	47	SCI
2002 03 22.76	x	B	3.2	TJ	6.5	R	6	28	3	8	&1.8		SWI
2002 03 22.76	x	I	3.7:	TJ	0.0	E		1		9	&0.3		ADA02
2002 03 22.78		S	3.3	AA	5.0	B		7	7	6	3	45	BAR
2002 03 22.79		S	3.8	TJ	5.0	B		10	5	8	3.5	45	MOE
2002 03 22.90		S	3.4	TJ	5.0	B		7	7	4	6	35	VET
2002 03 23.75	x	B	3.5:	TJ	4.0	B		8	3	D6	2.5		MAR13
2002 03 23.76	x	B	3.6:	TJ	5.0	B		10	1.5	S7/	&2	40	MAR12
2002 03 23.76		M	3.6	AA	6.0	B		20	4	S7		59	CSU
2002 03 23.76		S	2.8	AA	5.0	B		7	5	s9	7.2	50	KOS
2002 03 23.76	x&	M	3.8	TJ	8.0	L	7	21	5	S7	1.5	55	KOS01
2002 03 23.76	xa	B	3.5	TT	6.0	B		30	4	8	2.4	50	POW01
2002 03 23.78		S	3.3	AA	5.0	B		7	7	8	3	45	BAR
2002 03 23.85		B	3.3	S	7.0	B		10	25	6	2	45	TRI
2002 03 24.78		S	3.3	AA	5.0	B		7	7	7	3	40	BAR
2002 03 24.78		S	3.9	TJ	5.0	B		10	5	8	2.5	45	MOE
2002 03 25.71		B	3.0	SP	5.0	B		7					GOL04
2002 03 25.71		B	4.1	TJ	6.0	B		20	5	8/	1.8	35	SIE
2002 03 25.75	x&	B	4.3:	TJ	5.0	B		10	& 8	S4/	&0.8	48	TOB
2002 03 25.76	xa	B	2.9	TT	6.0	B		30	4	8	1.9	45	POW01
2002 03 25.78		S	3.3	AA	5.0	B		7	7	8	3	38	BAR
2002 03 25.85		B	3.3	SP	5.0	B		10					SER03
2002 03 25.90		S	3.4	TJ	5.0	B		7	7	4	3.5	30	VET

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 26.73		S	2.8	AA	5.0	B		7	5	s9	6.0	28	KOS
2002 03 26.75	x&	B	3.8	TJ	6.0	B		10	& 7	6	&1	40	TOB
2002 03 26.76	x	B	3.6	TJ	5.0	B		10	& 5	D6	2.5	35	MAR13
2002 03 26.76	x&	B	3.4:	TT	5.0	B		10	3	S8	2.8	38	MAK02
2002 03 26.76	x&	M	3.7	TJ	8.0	L	7	21	5	S7	1.7	51	KOS01
2002 03 26.76	xa	B	3.0	TT	6.0	B		30	4.2	8	2.0	42	POW01
2002 03 26.77		B	3.2	SP	5.0	B		7					GOL04
2002 03 26.77	x	B	3.5	TJ	5.0	B		10	2	S7	2.5	38	MAR12
2002 03 26.77		M	3.6	AA	6.0	B		20	4	S7	10	39	CSU
2002 03 26.77	x&	B	3.6	TJ	5.0	B		7	3	S7	2.0	30	SMY
2002 03 26.77	x&	B	3.6	TJ	5.0	B		12	4	S7	2.0	30	SMY
2002 03 26.77	x&	B	3.6	TJ	13	L	5	22	4	S7	1.9	30	SMY
2002 03 26.77	x&	B	3.7	TJ	6.0	R	11	28	4	S7	0.6	31	SMY
2002 03 26.77	xa	B	3.5	TT	5.0	B		7	& 7	7	&1.3	40	FIL04
2002 03 26.78	xa	I	3.3	TT	0.0	E		1		9	2.2	33	GRA09
2002 03 26.79		S	3.9	TJ	5.0	B		10	4	8	2	40	MOE
2002 03 26.79	xa	B	3.3	TT	4.0	B		8	4	S8	&3	35	GRA09
2002 03 26.81		M	3.2	TI	8.0	B		12	5	S7	4		BAR06
2002 03 26.81	x&	M	3.5	TJ	6.0	B		10	5	D6	2.5	40	KIS03
2002 03 26.82		S	3.4	SC	8.0	B		11					GAI
2002 03 26.83		S	3.4	AA	5.0	B		10	10	6	1.50		BEA
2002 03 26.86		M	3.8	TI	8.0	B		12	6	S7	3	50	BAR06
2002 03 27.73	xa	B	4.0:	S	6.0	B		30	& 5	5			SZC01
2002 03 27.74		B	2.8	SP	5.0	B		7					GOL04
2002 03 27.75	x&	B	3.7	TJ	6.0	B		10	& 5	s5	&1.1	40	TOB
2002 03 27.76	x	B	3.4	TJ	5.0	B		10	2.0	S7/	3.5	35	MAR12
2002 03 27.76	x&	B	3.5	TJ	6.0	B		10	& 5	6	2.5	37	KIS03
2002 03 27.76	x&	M	3.6	TJ	8.0	L	7	21	5	S7	1.6	46	KOS01
2002 03 27.76	xa	B	3.3:	TT	6.0	B		20	& 6	6	&1.3	35	SCI
2002 03 27.76	xa	M	3.7	TJ	8	R	7	35	3	6	1.0	35	KWI
2002 03 27.77	x&	B	3.4	TT	5.0	B		10	3.5	S7/	&2.5	33	MAK02
2002 03 27.77	x&	B	3.5	TJ	5.0	B		7	4	S7	2.5	34	SMY
2002 03 27.77	x&	B	3.5	TJ	5.0	B		10	3	S5	&3	35	MAR13
2002 03 27.77	x&	B	3.6	TJ	5.0	B		12	4	S7	2.5	34	SMY
2002 03 27.77	x&	B	3.6	TJ	13	L	5	22	4	S7	1.9	35	SMY
2002 03 27.77	x&	B	3.7	TJ	6.0	R	11	28	4	S7	0.65	35	SMY
2002 03 27.79	x	B	3.4	TJ	6.0	B		20	4	7	&2.5	35	SIW
2002 03 27.79		S	3.9	TJ	5.0	B		10	4.5	8	1.5	40	MOE
2002 03 27.85		B	2.8	SP	5.0	B		10					SER03
2002 03 28.74	x	B	4.2	TJ	35	L	6	105	& 6	S8	1.0		CHR
2002 03 28.75		B	2.9	SP	5.0	B		7					GOL04
2002 03 28.76		S	2.6	AA	5.0	B		7	5	s9	6.5	20	KOS
2002 03 28.76	xa	B	3.4:	TT	6.0	B		20	& 6	6	&1.0	25	SCI
2002 03 28.76	xa	M	3.9	TJ	8	R	7	35	2	6	0.9	30	KWI
2002 03 28.77		M	3.4	AA	6.0	B		20	4	S7	3	36	CSU
2002 03 28.77	x&	B	3.5	TJ	5.0	B		7	4	S7	2.5	31	SMY
2002 03 28.77	x&	B	3.5:	TJ	12	L	8	50	& 3	7			SZC
2002 03 28.78	x	B	3.4	TJ	6.0	B		20	4	6/	&2	30	SIW
2002 03 28.80		B	3.8	TJ	5.0	B		10	5	8			MOE
2002 03 28.90		S	3.5	TJ	5.0	B		7	7	4	3.5	25	VET
2002 03 29.74	x	B	3.7	S	0.0	E		1					SZC01
2002 03 29.75		B	2.9	SP	5.0	B		7					GOL04
2002 03 29.75	xa	S	4.0	TJ	0.0	E		1	4	7			KWI
2002 03 29.76		B	3.7	AA	3	0		8	9	7	1.9		SER
2002 03 29.76	x&	B	3.3	TJ	6.0	B		10	& 5	6	3.0	30	KIS03
2002 03 29.76	x&	B	3.8	TJ	6.0	B		10	& 6	6	&1.5	55	TOB
2002 03 29.76	xa	B	2.9	TT	6.0	B		20	& 4	6	&1.6	25	SCI
2002 03 29.76	xa	B	3.8	TT	6.0	B		30	4.2	8	2.1	33	POW01
2002 03 29.76	xa	M	4.2	TJ	8	R	7	35	4	6/	1.7	28	KWI
2002 03 29.77	x	B	3.4	TJ	5.0	B		7	& 5	6/	&3	20	SAD
2002 03 29.77	x	I	3.4:	TJ	0.0	E		1	& 2	7/			SAD
2002 03 29.77		M	3.4	AA	6.0	B		20	4	S7	8	34	CSU
2002 03 29.77	x&	B	3.3	TJ	5.0	B		10	& 3	S7/	2.3	27	MAR12
2002 03 29.77	x&	B	3.4	TJ	5.0	B		10	& 3	S6/	3.8	20	MAR13
2002 03 29.77	x&	B	3.5:	TJ	12	L	8	50	& 3	7	0.90	38	SZC

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 29.77	x&	B	3.8:	TJ	6.0	B		12	20	S6/	&4.5		JAR01
2002 03 29.77	x&	M	3.5	TJ	8.0	L	7	21	4	6/	1.9	40	KOS01
2002 03 29.77	xa	B	2.8	TT	5.0	B		7	& 7	7	&2.5	28	FIL04
2002 03 29.78		B	2.7	S	5.0	B	4	7	15	5/	6.5	30	KOU
2002 03 29.78	x	B	3.6	TJ	11	L	7	32	4.3	D7	1.75	20	SAD
2002 03 29.78	x&	B	3.9	TJ	20	L	4	32	& 7	5	&1.5	55	TOB
2002 03 29.78	xa	B	3.5	TT	0.0	E		1	8	8	2.6	25	GRA09
2002 03 29.79	x	B	2.6:	TT	5.0	B		10	7	7/	2.7	30	KEZ
2002 03 29.79	x	B	3.0:	TJ	6.0	B		20	& 7.0	6	&1.5		WLO
2002 03 29.80	xa	B	3.3	TT	4.0	B		8	3	S7/	2.8	25	GRA09
2002 03 29.81	x!	B	3.3	TJ	5.0	B		10	8	d6	&0.8	20	TRE03
2002 03 29.82		S	3.5	AA	5.0	B		10		8	1.8	27	ABB
2002 03 29.83		M	3.4	TI	8.0	B		12	5	S7	4		BAR06
2002 03 29.85		B	2.9	SP	5.0	B		10					SER03
2002 03 30.73		B	3.1	SP	5.0	B		7					GOL04
2002 03 30.75	xa	B	3.7	S	6.0	B		30	8	s4	2.70	27	SZC01
2002 03 30.75	xa	S	4.0	TJ	0.0	E		1	4	7			KWI
2002 03 30.76		B	3.7	AA	5	R		10	8	7	4.2	55	BRU
2002 03 30.76		B	3.9	AA	3	O		8	10	8	1.9		SER
2002 03 30.76		S	2.4	AA	5.0	B		7	6	s8	15.5	14	KOS
2002 03 30.76	xa	M	4.1	TJ	8	R	7	35	4	6/	1.8	27	KWI
2002 03 30.77	x	B	3.0	TJ	5.0	B		7	5	8	5	20	PAR03
2002 03 30.77	x	B	3.4	TJ	12	L	8	50	4	7	2.2	23	SZC
2002 03 30.77		M	3.3	AA	6.0	B		20	4	S7	7	25	CSU
2002 03 30.77	x!	B	3.2	TJ	5.0	B		10	8	d7	2.8	20	TRE03
2002 03 30.77	x&	B	3.3	TJ	5.0	B		10	& 3	7	4.5	22	MAR12
2002 03 30.77	x&	B	3.4:	TJ	4.0	B		8	& 3	S6	&3	20	MAR13
2002 03 30.77	x&	B	3.5:	TJ	5.0	B		7	& 3	6	1.5	25	SZC
2002 03 30.77	xa	B	2.9	TT	6.0	B		20	& 4	6	&2.2	17	SCI
2002 03 30.78	x	B	3.0	TT	5.0	B		10	7.5	6	2.9	25	KEZ
2002 03 30.78		B	3.4	TJ	5.0	B		7	5	6	2.5	20	CHE03
2002 03 30.78	x	B	3.6	TT	4.0	B		8	4	S7/	3.4	19	GRA09
2002 03 30.79	x	B	3.4	TT	5.0	B		10	3.5	D6/	3.5	22	MAK02
2002 03 30.79	x	B	3.5:	TJ	6.0	B		20	& 6.0	6	&1.2		WLO
2002 03 30.79	x	B	3.7	TJ	5.0	B		7	& 6	6	&2.5	20	SAD
2002 03 30.80	x&	B	3.9	TJ	6.0	B		12	22	S7	&5		JAR01
2002 03 30.80	x&	M	3.5	TJ	8.0	L	7	21	4	7	2.2	34	KOS01
2002 03 30.81	xa	B	3.3	TT	6.0	B		30	6	7/	1.8	26	POW01
2002 03 30.82	xa	B	3.4	TT	5.0	B		7	5.5	7	1.7	25	POW01
2002 03 30.83		S	3.5	AA	5.0	B		10		8	1.1	21	ABB
2002 03 30.85		B	3.1	SP	5.0	B		10					SER03
2002 03 30.85		M	3.7	TI	8.0	B		12	5	S7	3		BAR06
2002 03 31.74	x	B	4.2	TJ	35	L	6	105	& 6	S8	&70 m		CHR
2002 03 31.76		S	2.4	AA	5.0	B		7	6	s7	16	10	KOS
2002 03 31.76	x&	B	4.0	TJ	6.0	B		10	& 4	6	&3	0	TOB
2002 03 31.77	x	B	3.0	TJ	5.0	B		7	5	8	5	20	PAR03
2002 03 31.77		M	3.3	AA	6.0	B		20	4	S7	4.3	25	CSU
2002 03 31.77	x&	B	2.9	TJ	6.0	B		10	& 5	D6	4.0	25	KIS03
2002 03 31.77	x&	B	3.7	TJ	8.0	B		10	7	D7	&2	24	SIK01
2002 03 31.78	x	B	3.2	TJ	5.0	B		10	4	7			SWI
2002 03 31.78	x!	B	3.2	TJ	5.0	B		10	8	d7	1.5	15	TRE03
2002 03 31.78	x&	B	3.9	TJ	6.0	B		12	21	S7	&6.5		JAR01
2002 03 31.79	x&	B	3.0	TJ	5.0	B		10	& 6	S7	&1.67	26	BAN01
2002 03 31.80		S	3.3	AA	5.0	B		7	7	8	3	18	BAR
2002 04 01.74	x	B	4.3	TJ	6.0	B		20	& 6	S8	2.0		CHR
2002 04 01.75		B	3.9	AA	5.0	B		7					GOL04
2002 04 01.76		B	4.0	TJ	6.0	B		20	7	7	2.5	20	SIE
2002 04 01.76		S	3.7:	AA	5.0	B		10	9	8	10	10	SAJ
2002 04 01.79	x	B	3.8	TJ	6.0	B		20	4	6/	&2	5	SIW
2002 04 01.80	x&	M	3.5	TJ	8.0	L	7	21	4	7	2.0	28	KOS01
2002 04 01.83		S	2.6	AA	20	T	10	64	12	6	1.33		BEA
2002 04 01.85		B	2.8	SP	5.0	B		10					SER03
2002 04 01.85		S	3.8	HS	7.0	B		15	3	4	2	30	MER05
2002 04 01.92		S	3.4	TJ	5.0	B		7	8	4	4	20	VET
2002 04 02.77	x	B	3.8	TJ	5.0	B		7	& 5	D6	&2.5	10	SAD

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 02.77	x&	B	3.3:	TJ	5.0	B		10	3	S5	2.6	15	MAR13
2002 04 02.77	x&	B	3.4	TJ	5.0	B		10	3	S6	&3	15	MAR12
2002 04 02.77	x&	B	3.6	TJ	6.0	B		10	& 8	6	&1.7	18	TOB
2002 04 02.78	x	B	3.5	TJ	8.0	B		10	7	D6	2.3	20	SIK01
2002 04 02.79	x	B	3.3	TT	5.0	B		10	8	5	2.0	14	KEZ
2002 04 02.79	x	B	3.4:	TT	5.0	B		10	4.5	D6/	2.5	21	MAK02
2002 04 02.79	x&	B	3.4	TJ	20	L	4	32	& 6	4	&1.8	23	TOB
2002 04 02.79	x&	B	3.7	TJ	5.0	B		7	4	6/	&1.0		SMY
2002 04 02.79	x&	M	3.5	TJ	8.0	L	7	21	5	6/	2.0	25	KOS01
2002 04 02.80	x	B	3.5	YG	5.0	B		7	& 6	S7	2.2	10	SPE01
2002 04 02.80	x	B	3.7	TJ	6.0	B		20	5	6	1.5	10	SIW
2002 04 02.80		B	4.0	TJ	6.0	B		20	7	7	2	20	SIE
2002 04 02.81		B	3.8	TJ	5.0	B		10	5	7	3.5	10	MOE
2002 04 02.81		B	4.0	TJ	10.0	B		20	5.7	S7	2.5	18	MEY
2002 04 03.12	x!	B	3.3	TJ	5.0	B		10	6	d7	0.2		TRE03
2002 04 03.74	x	B	4.0	TJ	6.0	B		20	& 6	S8	3.0		CHR
2002 04 03.75		S	3.7	AA	5.0	B		10	8	s6		5	SAJ
2002 04 03.76		B	2.7	AA	5.0	B		7					GOL04
2002 04 03.76		B	3.5:	AA	5	R		10	7	7	6	40	BRU
2002 04 03.76	x	B	3.7	TT	15	L	6	45	4.5	D7	1.9	13	SIE01
2002 04 03.76	xa	M	4.3	TJ	8	R	7	35	3	5	1.6	14	KWI
2002 04 03.78	x	B	3.2	TJ	5.0	B		10	6	7			SWI
2002 04 03.78		B	3.6	TJ	5.0	B		7	5	6	3.6	15	CHE03
2002 04 03.78	x	B	3.7	TJ	11	L	7	32	& 5.3	D6	0.8		SAD
2002 04 03.78	x	I	3.5	TJ	0.0	E		1	& 5	5			SAD
2002 04 03.78	x!	B	3.2	TJ	5.0	B		10	6	d7	2.5	10	TRE03
2002 04 03.78	x&	B	2.9	TJ	20	L	4	32	&10	6	&2.5	12	TOB
2002 04 03.78	x&	B	3.2	TJ	8.0	B		10	5	S5	&5	14	MAR13
2002 04 03.79		B	2.6	S	5.0	B	4	7	15	6	7.5	15	KOU
2002 04 03.79	x	B	3.1	TT	5.0	B		10	10	6	4.0	10	KEZ
2002 04 03.79	x	B	3.3	TT	6.7	B		20	& 5	6	&5.5	11	SCI
2002 04 03.79	x	B	3.6	TJ	6.0	B		20	5	6	2	10	SIW
2002 04 03.79	x	I	3.3	TT	0.0	E		1	& 5	6	&2	10	SCI
2002 04 03.79		S	3.6	AA	8.0	B		20	8	6	2	15	BAR
2002 04 03.79	x&	B	3.0	TJ	6.0	B		10	7	S6	4.0	20	KIS03
2002 04 03.79	x&	B	3.2	TJ	6.0	B		10	& 4	6	&2.4	13	TOB
2002 04 03.79	x&	B	3.3	TJ	5.0	B		10	4	S6	3.7	13	MAR12
2002 04 03.79	x&	M	3.6	TJ	8.0	L	7	21	4	6/	1.7	22	KOS01
2002 04 03.79	xa	B	3.0	TT	0.0	E		1	12	S7/	5.0	5	GRA09
2002 04 03.79	xa	B	3.3	TT	6.0	B		30	6.2	7	2.3	8	POW01
2002 04 03.80	x	B	3.3	YG	5.0	B		7	& 6	S7	4.0	13	SPE01
2002 04 03.80		B	3.9	TJ	6.0	B		20	7	7	2	15	SIE
2002 04 03.80	x&	B	3.5	TT	5.0	B		10	4.4	7/	2.3	21	MAK02
2002 04 03.80	x&	I	3.3	TT	0.0	E		1		S9			MAK02
2002 04 03.81	x	B	3.7	TJ	5.0	B		7	5	S6/	2.0	5	SMY
2002 04 03.81	xa	B	3.3	TT	4.0	B		8	7	S7/	3.6	6	GRA09
2002 04 03.81	xa	B	3.9	TT	20	L	6	29	6	6	3.3	15	WAL03
2002 04 03.82		B	3.6	TJ	5.0	B		10	7	7	4	0	MOE
2002 04 03.82		S	4.1	SC	8.0	B		11					GAI
2002 04 03.82	x&	B	3.7	TJ	13	L	5	22	6	S6/	1.5	4	SMY
2002 04 03.83	x	B	4.2	S	6.0	B		30	9	4	2.51	13	SZC01
2002 04 03.83		S	3.8	AA	5.0	B		10		8	2.6	0	ABB
2002 04 03.83	x&	B	3.8	TJ	5.0	B		7	5	S6/	1.8	4	SMY
2002 04 03.85		B	2.7	SP	5.0	B		10					SER03
2002 04 03.87	x	B	3.3	TJ	8.0	B		10	6	D6	2.5	13	SIK01
2002 04 03.93		S	3.5	TJ	5.0	B		7	8	4	3.5	15	VET
2002 04 04.07	xa	B	3.4	TT	6.0	B		30	6.5	7	2.3	7	POW01
2002 04 04.11	x!	B	3.3	TJ	5.0	B		10	5	d7	2.9	12	TRE03
2002 04 04.77	x&	M	4.1	AA	6	R	5	16	2	6	&2	10	SKR
2002 04 04.78	x	B	3.6	TJ	5.0	B		7	& 6	D7	3.7		SAD
2002 04 04.78	x	B	3.6	TT	6.0	B		20	& 5	6	&2.0	10	SCI
2002 04 04.78	x	I	3.4	TJ	0.0	E		1	& 7	d6	0.75		SAD
2002 04 04.79		B	2.6	S	5.0	B	4	7	12	6	8	10	KOU
2002 04 04.79	x	B	3.3	TJ	5.0	B		10	6	d7	2.5	5	TRE03
2002 04 04.79	x	B	3.5	TT	5.0	B		10	& 6.5	6	&2.6	3	KEZ

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 04.79		B	3.5:	TJ	5.0	B		7	5				CHE03
2002 04 04.79	x	B	3.6	TJ	6.0	B		20	5	6	&2	5	SIW
2002 04 04.80		B	2.5	S	5.0	B	4	7	15	5/	7.5	15	WOL03
2002 04 04.80	x	B	3.3	YG	5.0	B		7	& 5	S7/	3.0	5	SPE01
2002 04 04.80	x	B	3.7:	TJ	6.0	B		20	& 8.0	6	&1.0		WL0
2002 04 04.82		B	3.7	TJ	5.0	B		10	6	7	3	355	MOE
2002 04 04.83	x	B	3.8	TJ	5.0	B		7	5	6/	1.7	1	SMY
2002 04 04.83		B	3.9	TJ	6.0	B		20	7	7	2	12	SIE
2002 04 04.83		S	3.5	SC	8.0	B		11					GAI
2002 04 04.83	x&	B	3.8	TJ	5.0	B		12	5	6/	1.5	1	SMY
2002 04 04.85		B	3.5	SP	5.0	B		10					SER03
2002 04 04.94		S	3.6	TJ	5.0	B		7	8	3/	3		VET
2002 04 05.11	x	S	3.8:	TJ	5.0	B		7	& 5	D6	2.3		SAD
2002 04 05.76		B	3.4	AA	5.0	B		7					GOL04
2002 04 05.76		B	4.3	AA	3	0		8	12	6	1.3		SER
2002 04 05.77	x	B	3.6:	TT	6.0	B		20	& 4	6	&1.7	10	SCI
2002 04 05.77	x&	B	3.3:	TJ	4.0	B		8	& 3	S6	&1.8	8	MAR13
2002 04 05.79		B	3.9	TJ	6.0	B		20	7	7	0.8	355	SIE
2002 04 05.79	xa	B	3.4	TT	5.0	B		7	6	7	3.5	3	POW01
2002 04 05.80		B	2.8	S	5.0	B	4	7	10	5/	6.5	5	KOU
2002 04 05.82		S	3.8	TJ	5.0	B		10	5	7	2.5	350	MOE
2002 04 05.84		S	3.2	AA	20	T	10	64	10	5	0.83		BEA
2002 04 05.84		S	3.5	AA	5.0	B		10	4	8	1.9	4	ABB
2002 04 05.85		B	3.5	SP	5.0	B		10					SER03
2002 04 05.85		S	3.4	SC	8.0	B		11		4	1.3	322	GAI
2002 04 06.74	x	B	4.1	TJ	6.0	B		20	& 5	S7	&2.5		CHR
2002 04 06.80		B	4.0	TJ	6.0	B		20	7	7	0.6	350	SIE
2002 04 06.83		S	3.6	SC	8.0	B		11			1.5		GAI
2002 04 06.83		S	4.0	TJ	5.0	B		10	6	7	2	350	MOE
2002 04 06.84		I	3.6	AA	0.7	E		1		8	2.0	2	ABB
2002 04 06.84		S	3.6	AA	5.0	B		10	5	8	3.0	2	ABB
2002 04 06.84		S	4.5	HS	7.0	B		15	3	4			MER05
2002 04 06.95		S	4.5:	HI	4.0	B		8		7	2.1	15	MAC04
2002 04 06.96		S	3.5	TJ	5.0	B		7	9	4	5	12	VET
2002 04 07.80	x	B	3.5	TJ	6.0	B		20	6	5/	&3	3	SIW
2002 04 07.80	x	B	4.0:	YG	5.0	B		7	& 6	S7	1.7	0	SPE01
2002 04 07.80	x&	M	3.5	TJ	8.0	L	7	21	4	6	1.9	12	KOS01
2002 04 07.83		S	4.7	SC	8.0	B		11					GAI
2002 04 07.84	x	M	4.4:	S	6.0	B		30	& 7	3			SZC01
2002 04 07.85		S	3.0	AA	20	T	10	64	12	6	2		BEA
2002 04 07.85		S	4.6	SC	8.0	B		11			2	5	GAI
2002 04 07.87		S	5.0	HS	7.0	B		15	3	3	1	10	MER05
2002 04 07.90		S	3.6	TJ	5.0	B		7	9	4	4.5	9	VET
2002 04 08.44		S	4.2	AA	5.0	B		10	5	7	1.9	358	ABB
2002 04 08.79		B	4.1	TJ	6.0	B		20	7	6/	2	340	SIE
2002 04 08.80		B	2.9	S	5.0	B	4	7	12	5	7	0	KOU
2002 04 08.80	xa	B	3.7	TT	5.0	B		10	9	6	&1.5	355	KEZ
2002 04 08.81		S	3.5	AA	5.0	B		20	6	7			DIE02
2002 04 08.83		S	4.2	TJ	5.0	B		10	7	6	3	350	MOE
2002 04 08.84		S	4.3	SC	8.0	B		11					GAI
2002 04 08.85		B	4.1	SP	5.0	B		10					SER03
2002 04 09.06	a	B	3.5	TT	0.8	E		1	17	6	3	0	HOR02
2002 04 09.07	a	M	3.9	TT	8.0	B		10	11	7	6	357	HOR02
2002 04 09.09		B	3.3	TI	0.8	E		1	15		5	356	NED
2002 04 09.10	x&	M	3.6	TJ	8.0	L	7	21	4	6	1.8	5	KOS01
2002 04 09.78	x	B	4.4:	TT	6.0	B		20	& 3	5	&0.5	3	SCI
2002 04 09.79		S	4.5:	AA	5.0	B		10	13	6	2.5	343	SAJ
2002 04 09.80	x	B	3.8	TJ	6.0	B		20	& 8	6	&2.0		WL0
2002 04 09.80	x&	B	4.4	AA	6	R	5	16	& 2	6	&1.8	350	SKR
2002 04 09.82		S	4.3	TJ	5.0	B		10	6	6	1	345	MOE
2002 04 09.85		B	4.4	SP	5.0	B		10					SER03
2002 04 10.08	x	B	4.0:	TJ	18	L	7	58	&10	D5			WL0
2002 04 10.09		I	3.9	YG	0.7	E		1					GRA04
2002 04 10.09		M	4.0	YG	5.0	B		7	6	7	3.5	348	GRA04
2002 04 10.10	x	B	4.2	TT	6.7	B		20	& 4	5/	&1.2	342	SCI

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 10.10		S	3.5	AA	5.0	B		20	6	7	1	358	DIE02
2002 04 10.79		B	4.5	AA	5.0	B		7					GOL04
2002 04 10.80	xa	B	3.9	TT	5.0	B		7	7	6	0.7	343	POW01
2002 04 10.82		B	4.3	TJ	6.0	B		20	7	6/	1.5	335	SIE
2002 04 10.83		S	4.3	SC	8.0	B		11					GAI
2002 04 10.83		S	4.3	TJ	5.0	B		10	7	6	2.5	345	MOE
2002 04 10.85		B	4.6	SP	5.0	B		10					SER03
2002 04 10.87		S	4.5	SC	8.0	B		11			1	346	GAI
2002 04 10.95		S	3.7	TJ	5.0	B		7	10	4	4	6	VET
2002 04 11.06		M	4.0	TI	8.0	B		12	6	S7	3		BAR06
2002 04 11.14		S	3.6	AA	5.0	B		20	6	8	1	358	DIE02
2002 04 11.76	x	B	4.2	TJ	6.0	B		20	& 7	S6	&2		CHR
2002 04 11.78		B	4.6	AA	5.0	B		7					GOL04
2002 04 11.78	x&	B	4.8:	TJ	6.0	B		10	&15	4	&1	334	TOB
2002 04 11.78	xa	M	4.2	AA	6	R	5	16	& 3	D5	&2.3	340	SKR
2002 04 11.79	x	B	4.2	TJ	6.5	R	6	28	5	5			SWI
2002 04 11.79	x!	B	4.1	TJ	5.0	B		10	9	d6	1.2	347	TRE03
2002 04 11.79	xa	B	3.6	TT	6.0	B		30	9	5/	1.2	341	POW01
2002 04 11.79	xa	B	4.5:	TT	6.7	B		20	& 4	5/	&0.5	355	SCI
2002 04 11.80	x&	M	3.7	TJ	8.0	L	7	21	4	d6	1.5	348	KOS01
2002 04 11.82		B	4.4	TJ	6.0	B		20	8	6/	1.8	325	SIE
2002 04 11.83	x	B	3.9	HS	5.0	B		10	5.3				SRE
2002 04 11.83		B	4.0	TJ	5.0	B		7	5	6	2.2	330	CHE03
2002 04 11.83	x&	B	4.7:	YG	6.0	B		20	& 6	S6	&0.38	351	BAN01
2002 04 11.85		B	4.6	SP	5.0	B		10					SER03
2002 04 11.88		M	4.1	TI	8.0	B		12	5	6	2		BAR06
2002 04 11.93		S	3.8	TJ	5.0	B		7	10	4	2.5	5	VET
2002 04 11.98	x	B	4.7	TJ	6.0	B		20	4	4	2	340	SIK01
2002 04 11.99	xa	B	3.6	TT	5.0	B		7	&12	7	&1.9	340	FIL04
2002 04 12.03		B	4.4	TJ	6.0	B		20	8	6/	2	325	SIE
2002 04 12.04	x	B	3.8	TJ	6.0	B		10	7	S5	4.0	330	KIS03
2002 04 12.04	x	B	4.0	TT	15	L	6	45	6.6	D6	1.4	335	SIE01
2002 04 12.04	x	B	4.2	TJ	6.8	R	12	40	& 7	S6	&2		CHR
2002 04 12.05	x	B	3.9	TJ	5.0	B		10	5	S6/	&5.5	350	MAR13
2002 04 12.07	x	B	4.0:	TJ	6.0	B		20	& 7	D5	&1.0		WLO
2002 04 12.08	x	B	3.6	TT	0.0	E		1	& 4	5	&1.0	330	SCI
2002 04 12.09	x	B	3.5	TT	6.0	B		20	& 8	6	&2.3	330	SCI
2002 04 12.11	x	B	3.8	TJ	5.0	B		10	5	s5	&8	340	MAR12
2002 04 12.73		B	4.4	AA	5.0	B		7					GOL04
2002 04 12.80		B	4.4	TJ	6.0	B		20	8	6/	2	325	SIE
2002 04 12.83		M	4.2	TI	8.0	B		12	6	D6	3	329	BAR06
2002 04 12.84		B	4.2	TJ	5.0	B		7	5				CHE03
2002 04 12.85		B	4.4	SP	5.0	B		10					SER03
2002 04 12.87		S	4.0	AA	5.0	B		10	7	6	3.9	338	ABB
2002 04 12.88		S	3.0	AA	5.0	B		10	12	6	1.5		BEA
2002 04 12.88		S	4.7	SC	8.0	B		11			2	340	GAI
2002 04 13.06		M	4.1	TI	8.0	B		12	7	D6	4.5	337	BAR06
2002 04 13.76	x	B	4.3	TJ	6.0	B		20	& 7	S6	&1.5		CHR
2002 04 13.89		M	4.2	YG	5.0	B		7	8	6	2.6	341	GRA04
2002 04 14.06		S	3.7	AA	5.0	B		20	7	8			DIE02
2002 04 14.11	x	B	3.6	TT	5.0	B		7	&11	6/	&1.8	324	FIL04
2002 04 14.78	x	B	4.3	TJ	6.0	B		20	& 7	S5	&1		CHR
2002 04 14.80	x&	B	4.1:	YG	6.0	B		20	& 6	s6	&0.64	338	BAN01
2002 04 14.80	xa	B	4.4	AA	6	R	5	16	& 3	D5	&2.1	325	SKR
2002 04 14.81	x	B	3.9:	TT	5.0	B		10	&14	5	&0.9	324	KEZ
2002 04 14.89	xa	B	4.0	TT	5.0	B		7	& 9	6	&2.0	315	FIL04
2002 04 14.94		S	3.8	TJ	5.0	B		7	10	4	2		VET
2002 04 14.95	xa	B	4.0	TT	6.0	B		30	7	5/	1.7	332	POW01
2002 04 14.97	xa	B	4.2	TT	6.0	B		20	& 6	5/	&1.8	330	SCI
2002 04 15.04	x	B	4.3	TJ	35	L	6	105	& 7	S5	&1		CHR
2002 04 15.06	x	B	4.6	TJ	6.0	B		10	&12	s3/	&2.5	328	TOB
2002 04 15.79		M	4.5	AA	6.0	B		20	7	7	2	32	CSU
2002 04 15.80	x&	B	4.4	TJ	6.0	B		10	& 7	4		325	TOB
2002 04 15.81	x	M	4.0	TJ	8.0	L	7	21	4	5/	1.5	325	KOS01
2002 04 15.85		M	4.1	YG	5.0	B		7	7	5/			GRA04

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 15.85	x&	B	4.0	TJ	6.0	B		10	6	S5	3.2	304	MAR13
2002 04 15.85	x&	B	4.0	TJ	6.0	B		10	8	S5	&3	315	KIS03
2002 04 15.88		S	4.8	SC	8.0	B		11				8	GAI
2002 04 15.90		S	2.9	AA	20	T	10	64	15	5	1		BEA
2002 04 15.95		S	3.9	TJ	5.0	B		7	10	4	2	0	VET
2002 04 16.05	x	B	4.2	TJ	6.0	B		20	& 6	D5/	&1.0		WL0
2002 04 16.05	a	M	4.1	TT	8.0	B		10	14	6	5	320	HOR02
2002 04 16.06	x	B	4.0:	TJ	15	L	6	45	&10	5	&1.2		WL0
2002 04 16.09	x	B	4.2	TT	6.0	B		20	& 7	5/	&1.9	322	SCI
2002 04 16.16	a	B	3.8	TT	0.8	E		1	20	5/	2	320	HOR02
2002 04 16.80		M	4.5	AA	6.0	B		20	7	7	2	32	CSU
2002 04 16.81	x	M	4.1	TJ	8.0	L	7	21	4	5/	1.4	322	KOS01
2002 04 16.87		M	4.1	YG	5.0	B		7	9	5	2.0	330	GRA04
2002 04 16.88		S	4.3	AA	5.0	B		10	15	7	3	330	SAJ
2002 04 16.88		S	4.8	SC	8.0	B		11					GAI
2002 04 17.00		B	4.0	VF	3.5	B		8	20	5	3.5	325	MOR04
2002 04 17.00	x	B	4.2	TJ	6.0	B		20	& 6	5			WL0
2002 04 17.01	a	B	3.8	TT	0.8	E		1	22	5/			HOR02
2002 04 17.09	x	B	4.3	TT	6.0	B		20	& 9	5/	&1.8	316	SCI
2002 04 17.78		B	3.9	AA	5.0	B		10					GOL04
2002 04 17.78		B	4.3	AA	5	R		10		6			BRU
2002 04 17.79	x&	B	4.9:	TJ	5.0	B		10	6	s5			MAR12
2002 04 17.81	x	M	4.1	TJ	8.0	L	7	21	5	S5/	1.2	315	KOS01
2002 04 17.83		B	4.5	TJ	6.0	B		20	9	6/	0.7	310	SIE
2002 04 17.85		B	3.9	SP	5.0	B		10					SER03
2002 04 17.87	x	B	4.3:	TJ	6.0	B		20	&10	s5	&0.77	314	BAN01
2002 04 17.89	x	B	4.2	TT	5.0	B		7	&10	6	&1.4	305	FIL04
2002 04 17.95		B	4.3	TJ	0.7	E		1	8	5	1.5	305	CHE03
2002 04 17.99		I	4.0	YG	0.7	E		1					GRA04
2002 04 17.99		M	4.0	YG	5.0	B		7	9	6	1.2	313	GRA04
2002 04 18.04	x	B	4.2	TJ	6.0	B		20	& 7	5	&0.5		WL0
2002 04 18.07	x	B	4.4	TT	6.0	B		20	&14	5/	&3.0	312	SCI
2002 04 18.07	x	M	4.5	TJ	6.0	B		30	14	D3	1.32	313	SZC01
2002 04 18.09	x!	B	4.3	TJ	5.0	B		10	10	d5	0.5	315	TRE03
2002 04 18.78	x	M	4.0	TT	3.5	B		7					TSU02
2002 04 18.81		B	4.3	AA	5.0	B		7					GOL04
2002 04 18.81	x	B	4.4	HS	5.0	B		10	8	S6			SRE
2002 04 18.81	x	M	4.2	TJ	8.0	L	7	21	6	S5/	1.2	310	KOS01
2002 04 18.81	xa	B	4.3	TT	6.0	B		30	9	4/	0.5	305	POW01
2002 04 18.82		B	4.6	TJ	6.0	B		20	9	6	0.5	310	SIE
2002 04 18.85	x	B	3.8	TT	5.0	B		10	&12	5			KEZ
2002 04 18.85		B	4.1	SP	5.0	B		10					SER03
2002 04 18.90	x&	S	5.0	TT	20.0	L	4	32	6	D6			CH001
2002 04 18.94	x	B	4.6:	YG	6.0	B		20	&11	s6	&0.43	312	BAN01
2002 04 18.98	xa	B	4.1	TT	6.0	B		30	9	5	1.4	307	POW01
2002 04 19.03		M	3.9	TI	8.0	B		12	7	s5	3		BAR06
2002 04 19.04	x	B	4.5	TJ	6.0	B		20	& 7	4/	&0.5		WL0
2002 04 19.06		B	4.2	VF	6.0	B		20	19	5	3	312	MOR08
2002 04 19.09	x	B	4.1	TT	6.0	B		20	& 8	5	&1.0	300	SCI
2002 04 19.10	x	B	4.0	TT	5.0	B		7	&10	6			FIL04
2002 04 19.80		B	4.3	AA	5.0	B		7					GOL04
2002 04 19.81	x	B	4.6	HS	5.0	B		10	9	5/			SRE
2002 04 19.81	xa	B	4.0	TT	6.0	B		30	8	5	1.2	304	POW01
2002 04 19.85		B	4.4	SP	5.0	B		10					SER03
2002 04 19.90		S	4.9	TT	8.0	B		15	&10	6	&1	305	SCH04
2002 04 19.92		S	4.0	HV	5.0	B		7	15	5	2.5	310	BIV
2002 04 19.92		S	4.3	TJ	5.0	B		7	11	4			VET
2002 04 19.93		S	3.9	HV	0.0	E		1	15	5			BIV
2002 04 20.00		B	4.2	VF	6.0	B		20	18	5	3	310	MOR04
2002 04 20.08	x	B	5.0	TJ	6.8	R	12	40	& 7	D5	0.5		CHR
2002 04 20.13		B	4.1	HV	5.0	B		7	15	5	3.0	310	BIV
2002 04 20.14		B	4.0	HV	0.0	E		1	15	5	1.0	320	BIV
2002 04 20.81	x	M	4.4	TJ	8.0	L	7	21	8	5/	1.1	303	KOS01
2002 04 20.85		B	4.7	TJ	6.0	B		20	10	5/	0.5	300	SIE
2002 04 20.95		S	4.5	TT	4.0	B		8	&13	6/			SCH04

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 21.02	x!	B	4.3	TJ	5.0	B		10	10	d5	0.5	280	TRE03
2002 04 21.05		B	4.3	VF	6.0	B		20	18	5	3	300	MOR04
2002 04 21.08	x	B	5.0	TJ	35	L	6	105	& 6	D5	0.5		CHR
2002 04 21.09	x	B	4.6	TT	6.0	B		20	& 7	5	&1.0	285	SCI
2002 04 21.10		S	4.1	HV	0.0	E		1	15	5			BIV
2002 04 21.10		S	4.1	HV	5.0	B		7	15	5	2.5	300	BIV
2002 04 21.77		B	5.2	SP	4.0	B		4					GOL04
2002 04 21.80		B	4.8	TJ	6.0	B		20	10	5/	0.5	300	SIE
2002 04 21.85		B	4.5	TJ	5.0	B		10	9	5	3.5	290	MOE
2002 04 21.85	x	B	4.5	TJ	6.0	B		20	12	6			KID01
2002 04 21.85		B	4.8	SP	5.0	B		10					SER03
2002 04 22.00		B	4.3	VF	6.0	B		20	17	5	3	295	MOR08
2002 04 22.02		B	3.9	TT	0.8	E		1	21	4			HOR02
2002 04 22.04		M	4.1	TT	8.0	B		10	18	5	3	300	HOR02
2002 04 22.05		S	4.1	AA	8.0	B		20	10	5	2	290	BAR
2002 04 22.09		S	4.1	AA	5.0	B		20	7	8	1	325	DIE02
2002 04 22.78		B	4.9	AA	5.0	B		7					GOL04
2002 04 22.80	x	M	4.6	TT	4.0	B		8	9	5/			GRA09
2002 04 22.80	x&	B	4.8	TJ	6.0	B		10	&13	3		315	TOB
2002 04 22.81	x	M	4.5	TJ	8.0	L	7	21	9	s5	1.0	295	KOS01
2002 04 22.83	x	B	4.5	TT	6.0	B		30	12	5	0.5	291	POW01
2002 04 22.83		B	4.8	TJ	6.0	B		20	10	5/	0.3	300	SIE
2002 04 22.83	x	B	4.9	TJ	6.0	B		20	10	6			KID01
2002 04 22.85		B	4.7	SP	5.0	B		10					SER03
2002 04 22.85		S	4.5	TJ	5.0	B		10	8	5	2.5	290	MOE
2002 04 22.86	x	B	4.6	TJ	5.0	B		10	7	s4/	&0.30	280	MAR12
2002 04 22.86	x	B	4.8	TJ	6.0	B		20	26	D5			MAR11
2002 04 22.86	x&	S	4.3	TT	6.0	R	5	10	8	D6			CHO01
2002 04 22.87	x	B	4.4	TJ	6.0	B		10	&10	s5	&0.5	270	KIS03
2002 04 22.87	x	B	4.6:	TJ	6.0	B		10	&10	d5			MAR13
2002 04 22.92		M	4.5	AA	6.0	B		20	8	7	0.8	299	CSU
2002 04 23.02	x	B	4.5	TJ	6.0	B		20	&10	4/	&0.5		WLO
2002 04 23.04		B	4.4	VF	6.0	B		20	17	5	2.5	288	MOR04
2002 04 23.77	x	B	4.6	TJ	5.0	B		10	7	s4/	&0.3		MAR12
2002 04 23.80	x	B	4.8	TT	6.0	B		20	& 7	4/			SCI
2002 04 23.80	x&	B	5.2:	TJ	6.0	B		10	& 5	3			TOB
2002 04 23.81	x	B	4.6	TJ	5.0	B		10	& 8	s4/			MAR13
2002 04 23.83	x	B	4.5	TJ	6.0	B		10	& 8	s5			KIS03
2002 04 23.86		B	5.0	TJ	6.0	B		20	10	5/	0.2		SIE
2002 04 23.87	x	B	4.9	TJ	6.0	B		20	26	D5			MAR11
2002 04 23.89	x	B	4.6	TT	6.0	B		30	10	5	0.3	300	POW01
2002 04 24.03		B	4.4	VF	6.0	B		20	17	5	2	280	MOR04
2002 04 24.04	x	B	5.2	TJ	6.0	B		10	&13	4	&1	320	TOB
2002 04 24.81	x	M	4.7	TJ	8.0	L	7	21	&10	s5	0.6	293	KOS01
2002 04 24.83	x	B	4.6:	TJ	6.0	B		10	& 7	s4			KIS03
2002 04 24.83		S	5.2	AA	5.0	B		10	12	7	1.5	312	SAJ
2002 04 24.84	x	B	4.8	TT	5.0	B		10	8	S5	0.4	311	MAK02
2002 04 24.84	x&	B	4.6:	TJ	6.0	B		10	& 5	2/			TOB
2002 04 24.88	x	B	4.9:	TJ	11	L	7	30	20	5			OSS
2002 04 24.88		M	4.5	TT	5.0	B		10	15	4/			HOR02
2002 04 24.89		B	4.2	TT	0.8	E		1	19	3/			HOR02
2002 04 24.89	x	B	5.0	TJ	6.0	B		20	23	D5/			MAR11
2002 04 24.89		M	4.7	AA	6.0	B		20	8	7	0.8	280	CSU
2002 04 24.89		S	4.4	HV	5.0	B		7	15	5	1.0	280	BIV
2002 04 24.92	x	B	4.8	TJ	6.7	R	12	32	28	D6			MAR11
2002 04 24.98	x	B	4.6	TJ	11.0	L	7	30	29	D6			MAR11
2002 04 25.00	x	B	4.8	TJ	6.0	B		20	&10	4/	&0.7		WLO
2002 04 25.02		B	4.5	VF	6.0	B		20	12	5	1	280	MOR04
2002 04 25.06	x	B	4.7	TJ	5.0	B		10	8	4			MAR12
2002 04 25.91		S	4.3	HV	0.0	E		1	15	5			BIV
2002 04 25.92		S	4.4	HV	5.0	B		7	16	5	0.8	275	BIV
2002 04 26.03	x&	B	5.0:	TJ	6.0	B		10	& 6	3			TOB
2002 04 26.12		S	4.3	AA	5.0	B		7	10	7	50 m	270	BEG01
2002 04 26.82		B	5.0	AA	3	0		8	20	3			SER
2002 04 26.88	x&	S	5.1	TT	3.0	B		7	3	d6			CHO01

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 26.89		S	4.5	HV	5.0	B		7	15	5			BIV
2002 04 26.90	x	B	5.1	TT	6.0	B		30	15	4/			POW01
2002 04 26.92		B	5.2	AA	5	R		10		6			BRU
2002 04 27.04	x	B	4.9	TJ	5.0	B		10	7.5	s4			MAR12
2002 04 27.12		B	4.6:	AA	5.0	B		7	6	7			BEG01
2002 04 27.82	x	M	4.8	TJ	8.0	L	7	21	10	4/	0.7	285	KOS01
2002 04 27.85	x	B	4.9	TT	6.0	B		20	&12	4	&1.0	288	SCI
2002 04 27.88		S	4.3	AA	8.0	B		20	12	4	1.5	270	BAR
2002 04 27.91		M	4.5	TT	5.0	B		10	17	4			HOR02
2002 04 27.92		B	4.3	TT	0.8	E		1	20	3/			HOR02
2002 04 27.96		S	5.0	TJ	5.0	B		7	12	3			VET
2002 04 28.04	x	B	4.8:	TJ	6.0	B		20	& 8	4			WLO
2002 04 28.05		S	5.2	TJ	5.0	B		7	12	3			VET
2002 04 28.30		S	5.2	TK	5.0	B		10	15	0			ARA
2002 04 28.77		B	4.8	VF	6.0	B		20	11	5	1.5	247	MOR08
2002 04 28.81	x	B	4.8	TT	6.0	B		30	11	4	&1	262	POW01
2002 04 28.82		S	4.5:	AA	5.0	B		10	15	s7	1.5	280	SAJ
2002 04 28.83		M	4.7	AA	6.0	B		20	8	7/	1	265	CSU
2002 04 28.84		S	4.6	TT	4.0	B		8	11	6			SCH04
2002 04 28.85		B	4.4	TT	5.0	B		10	16.1	3	1.2	257	HAS02
2002 04 28.85	x	B	4.7	TJ	5.0	B		10	15	d4	0.8	264	TRE03
2002 04 28.86	x	B	4.8	TT	6.0	B		20	&11	4	&0.8	277	SCI
2002 04 28.89	x	B	5.2:	TJ	6.0	B		20	&18	4			BAN01
2002 04 28.92		S	4.2	AA	5.0	B		10	14	5	44 m	265	ABB
2002 04 29.11		S	4.8	AA	5.0	B		7	6	7			BEG01
2002 04 29.30		S	5.2	TK	5.0	B		10	11	0			ARA
2002 04 29.80	x	B	5.5	TJ	35	L	6	105	&10	D5	&1		CHR
2002 04 29.82		B	4.5	TT	5.0	B		10	8.4	3	0.47	250	HAS02
2002 04 29.82	x	B	4.9	TJ	4.0	B		8	12	S4	2.7	258	MAR13
2002 04 29.83	x	B	4.8	TJ	6.0	B		10	8	s4	&2	260	KIS03
2002 04 29.83	x	M	4.9	TJ	8.0	L	7	21	12	s4/	0.7	283	KOS01
2002 04 29.84	x	B	4.8	TJ	5.0	B		10	13	4	2.5	285	MAR12
2002 04 29.86	x	B	5.2	TJ	6.0	B		10	&15	s4/	&0.5	280	TOB
2002 04 29.88	x	B	5.1	TJ	6.0	B		20	&16	4			BAN01
2002 04 29.90		B	4.5	HV	0.0	E		1	15	5			BIV
2002 04 29.91		S	4.5	HV	5.0	B		7	15	5	2.0	255	BIV
2002 04 29.94		S	4.6	S	3.0	B		8	&14	5/	>2		BUS01
2002 04 29.99		I	4.6	YG	0.7	E		1					GRA04
2002 04 29.99	x	M	4.7	TJ	6.5	R	6	28	11	4	&1.4		SWI
2002 04 29.99		M	4.7	YG	5.0	B		7	12	4/			GRA04
2002 04 30.06		M	4.6	TT	8.0	B		10	19	4/	5	255	HOR02
2002 04 30.08		B	4.4	TT	0.8	E		1	30	4/	1	250	HOR02
2002 04 30.30		S	5.2	TK	5.0	B		10	11	0			ARA
2002 04 30.83		B	4.5	TT	5.0	B		10	17.1	3	0.65	242	HAS02
2002 04 30.83	x	M	4.9	TJ	8.0	L	7	21	12	4/	0.6	280	KOS01
2002 04 30.84	x	B	4.6	TT	6.0	B		30	12	4	1.2	247	POW01
2002 04 30.84	x	B	4.8	TJ	5.0	B		10	&12	S4	2.5	265	MAR13
2002 04 30.84	x	B	5.7	TJ	35	L	6	105	&10	D5	&1		CHR
2002 04 30.85	x	B	4.8	TJ	6.0	B		10	12	S4	&2.5	260	KIS03
2002 04 30.86	x	B	5.1	TT	6.0	B		20	&11	4	&1.5	262	SCI
2002 04 30.87	x	B	4.7	TJ	5.0	B		10	13	4	2.0	265	MAR12
2002 04 30.88		B	4.4	TT	0.8	E		1	28	4/			HOR02
2002 04 30.88	x	B	4.5	TT	5.0	B		10	18	S5	&2	257	MAK02
2002 04 30.88		M	4.8	AA	6.0	B		20	8	7/	1	248	CSU
2002 04 30.88		S	4.8	TT	8.0	B		20	14	6	0.5	260	AND01
2002 04 30.90		B	4.5	TI	0.8	E		1	20	5			CER01
2002 04 30.90	x	B	5.1	TJ	6.0	B		10	&18	s5	&1	285	TOB
2002 04 30.90		M	4.6	TT	5.0	B		10	21	4/	5	250	HOR02
2002 04 30.90		M	4.7	TI	5.0	B		10	21	5	4	245	CER01
2002 04 30.91	x	B	4.7:	TJ	6.0	B		20	&23	4			BAN01
2002 04 30.91		S	4.7	SC	8.0	B		11	11	4		270	GAI
2002 04 30.91		S	4.9	HI	8.0	B		20	8	5	0.9	255	SHA02
2002 04 30.95	x	B	4.8	YG	5.0	B		7	15	S5/			SPE01
2002 04 30.95		S	4.7	HI	0.7	E		1	10	6			SHA02
2002 04 30.98	x	B	4.6	TJ	5.0	B		10	17	d4	1.2	255	TRE03

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 30.98		S	5.0	TJ	5.0	B		7	12	3			VET
2002 05 01.00	x	B	4.8	TJ	6.0	B		20	&12	4/			WL0
2002 05 01.01	x	S	4.8	TJ	6.0	B		10	10	S5/			RZE
2002 05 01.11		S	5.0	AA	5.0	B		7	8	7	1.4	238	BEG01
2002 05 01.32		S	5.3	TK	5.0	B		10	11	0			ARA
2002 05 01.43		M	4.9	TK	5.0	B		10	14	3			LIN04
2002 05 01.56	x	S	4.7	TJ	5.0	B		12	13	6	0.5	250	NAG08
2002 05 01.59		S	5.0	AA	3.0	R		6	15	5			MOM
2002 05 01.80		B	4.5	VF	6.0	B		20	15	5	1	245	MOR08
2002 05 01.81	x	B	5.0	TJ	6.0	B		10	&10	4			TOB
2002 05 01.81		M	4.6	TI	6	R		10	14	5			BAR06
2002 05 01.85		M	4.6	TT	0.8	E		1	20	7/			LEH
2002 05 01.85		M	4.7	TT	5.0	B		10	15	7	2	250	LEH
2002 05 01.86	x	B	4.8	TJ	5.0	B		10	&13	4/	&1	240	MAR13
2002 05 01.86	x	B	5.4	TJ	20	L	4	32	&12	s4	&0.3	280	TOB
2002 05 01.86	x	B	5.7	TJ	35	L	6	105	&10	D5	&50 m		CHR
2002 05 01.86		S	4.8	AA	5.0	B		20	10	8			DIE02
2002 05 01.86		S	4.8	TJ	5.0	B		10	12	4			MOE
2002 05 01.87	x	B	4.6	TT	5.0	B		10	13	S4/	2	255	MAK02
2002 05 01.87	x	B	4.7	TJ	6.0	B		10	14	S3/	&2	255	KIS03
2002 05 01.87	x	M	5.7	TT	4.0	B		12	13	5			PIL
2002 05 01.88		B	4.4	TT	0.8	E		1	32	4/	1	245	HOR02
2002 05 01.88	x	B	4.8	TJ	5.0	B		10	15	4	0.8	250	TRE03
2002 05 01.88	x	B	5.1	TT	6.0	B		20	&12	4	&1.1	250	SCI
2002 05 01.88	x	M	4.9	TT	5	R	6	30	10	5			WAL03
2002 05 01.88	x	M	5.7	TT	4.0	B		12	21	7	0.52	233	LEG
2002 05 01.88		S	4.7	AA	5.0	B		10	25	6	1	255	SAJ
2002 05 01.88		S	4.8	TT	0.7	E		1	12	3/			RES
2002 05 01.89		B	4.5	HV	0.0	E		1	15	5			BIV
2002 05 01.89		S	4.7	HI	0.7	E		1	15	5			SHA02
2002 05 01.89		S	4.9	HI	8.0	B		20	9	5	0.9	250	SHA02
2002 05 01.90	x	B	4.7:	TT	5.0	B		10	16	5	&1	270	KEZ
2002 05 01.90		M	4.6	TT	5.0	B		10	22	5	4.5	245	HOR02
2002 05 01.90		S	4.6	AA	6.0	B		20	8	6	1.3	237	CSU
2002 05 01.90		S	4.6	HV	5.0	B		7	17	5	1.2	240	BIV
2002 05 01.91	x	B	4.7	TJ	5.0	B		10	15	4	0.7	240	MAR12
2002 05 01.92		M	4.8	TT	5.0	B		7	13	5/			BOU
2002 05 01.92		S	4.9	SC	5.0	B		7	14	4			GAI
2002 05 01.93	x	B	4.3	TT	15	L	6	45	20	5	1	243	KEZ
2002 05 01.93	x	S	5.1	TJ	6.0	B		10	17	D3			RZE
2002 05 01.94	x	B	5.5:	TJ	6.0	B		20	&10	s4	&0.41	232	BAN01
2002 05 01.94		S	5.0	A	20	T	10	64	10	5			BEA
2002 05 01.95	x	M	5.1	TJ	6.0	B		30	21	d2/			SZC01
2002 05 01.97	x	B	5.3	TJ	20	L	4	32	&15	s4	&0.6	280	TOB
2002 05 01.98	x	B	4.5	TT	5.0	B		7	&18	5	&1.0	243	FIL04
2002 05 01.99		B	4.6	TI	0.8	E		1	20	5			CER01
2002 05 01.99		M	4.7	TI	5.0	B		10	22	5			CER01
2002 05 01.99		S	4.7	AA	5.0	B		10	25	3			ZAN01
2002 05 01.99		S	4.9	TT	6.0	B		20	10	4/	1.2	240	RES
2002 05 02.01		S	4.6	TJ	5.0	B		10	&13	6/	&1.5		COM
2002 05 02.63	x	S	4.7	TJ	3.5	B		7	15	6			NAG08
2002 05 02.78	x	B	4.9	TJ	5.0	B		7	12	6	?		WAT01
2002 05 02.79		B	4.8	VF	6.0	B		20	20	5	1.5	240	MOR04
2002 05 02.81	x	B	4.9:	TJ	6.0	B		10	& 8	6			TOB
2002 05 02.81		S	4.7	AA	5.0	B		7	15	4			GOL
2002 05 02.83	x	B	4.7	TT	4.0	B		7	9.5	4/	1.3	225	SIE01
2002 05 02.83		M	4.9	S	15	L	5	30	20	6	&1		SHU
2002 05 02.83	x	M	5.0	TJ	8.0	L	7	21	13	4/	0.9	260	KOS01
2002 05 02.84	x	B	4.6	TJ	6.5	R	6	28	10	4			SWI
2002 05 02.84	x	B	5.3:	TJ	6.0	B		20	& 7	3/	&0.22	244	BAN01
2002 05 02.84		S	4.8	AA	5.0	B		10	20	6	1	240	SAJ
2002 05 02.85		B	4.5	TT	0.8	E		1	26	4/			HOR02
2002 05 02.85		M	4.7	TT	0.8	E		1	20	7/			LEH
2002 05 02.85		M	4.8	TT	5.0	B		10	15	6/	1		LEH
2002 05 02.86		B	5.3	AA	5	R		10		6		245	BRU

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 02.86	x	B	5.8	TJ	35	L	6	105	&10	D5	&50 m		CHR
2002 05 02.86		M	4.8	TT	5.0	B		10	19	4	3.5	245	HOR02
2002 05 02.86	x&	B	4.9	TJ	6.0	B		12	20	s4/	&1.5		JAR01
2002 05 02.87	x	B	4.8	TJ	5.0	B		7	12	D5	3	240	PAR03
2002 05 02.88	x	B	4.6	TT	5.0	B		10	14	S5	2	255	MAK02
2002 05 02.88	x	B	5.0	TT	6.0	B		20	&10	4	&1.2	260	SCI
2002 05 02.88	x	M	5.3	TT	4.0	B		12	15	7	0.52	273	LEG
2002 05 02.89	x	B	4.6	TT	6.0	B		30	11	4/	1.1	243	POW01
2002 05 02.89		S	5.1	HI	8.0	B		20	9	5			SHA02
2002 05 02.89		S	5.1	HI	8.0	B		20	9	5			SHA02
2002 05 02.90	x	B	4.8	TT	15	L	6	45	8	4/	1.4	227	SIE01
2002 05 02.90	x	B	4.9:	TJ	5.0	B		10	&14	S4/	&1.6	240	MAR13
2002 05 02.90		S	4.6	AA	6.0	B		20	9	6	1.5	249	CSU
2002 05 02.91		B	5.2	AA	3	0		8	14	4			SER
2002 05 02.91	x	M	5.0	TJ	6.0	B		10	12	2			RZE
2002 05 02.91		S	4.8	AA	5.0	B		20	10	8		240	DIE02
2002 05 02.91		S	5.0	TT	6.0	B		20	12	4	0.8	235	RES
2002 05 02.91	x	S	5.5	TJ	8	R	7	35	10	3	0.3	244	KWI
2002 05 02.92	x	B	4.7	TJ	5.0	B		10	15	4	1.6	240	MAR12
2002 05 02.92	x	B	5.4	TJ	6.0	B		10	&16	5	&0.4	273	TOB
2002 05 02.92		M	4.8	TT	6.0	B		7	14	6	2.5	245	BOU
2002 05 02.92		S	4.5	HS	7.0	B		15	20	1			MER05
2002 05 02.93	x	B	4.9	TT	5.0	B		7	&18	5	&1.0	242	FIL04
2002 05 02.93		S	4.6	S	3.0	B		8	&15	5/	>1		BUS01
2002 05 02.94		S	4.9	TJ	5.0	B		7	14	5/	2	240	DIJ
2002 05 02.96	x	B	4.7	TJ	6.0	B		10	15	S3/	&2	240	KIS03
2002 05 02.96	x&	S	4.8	TT	11.0	L	7	32	8	D6			CHO01
2002 05 02.99	x	B	5.4	TJ	20	L	4	32	&16	s5/	&2.1	270	TOB
2002 05 02.99	x	B	5.4	TT	5.0	B		10	26	5	1.8	242	KEZ
2002 05 03.00		B	4.6	TI	0.8	E		1	20	5			CER01
2002 05 03.00	x	B	5.0	TJ	5.0	B		7	16	S5			SPE01
2002 05 03.00		M	5.0	TI	5.0	B		10	18	5	3	250	CER01
2002 05 03.01	x	B	5.0	TJ	6.0	B		20	&12	4/			WLO
2002 05 03.02	x	B	4.8	TJ	5.0	B		10	18	d4	1.2	240	TRE03
2002 05 03.02	x	M	5.0	TT	4.0	B		8	20	4			GRA09
2002 05 03.82		M	4.8	TI	5.0	B		20	16	5	2		BAR06
2002 05 03.82		S	4.8	AA	5.0	B		7	17	3			GOL
2002 05 03.83		B	4.9	VF	6.0	B		20	20	5	1.5	233	MOR08
2002 05 03.83		B	5.1	AA	3	0		8	17	4	0.6m	216	SER
2002 05 03.83	x	B	5.2	TJ	6.0	B		10	&12	6	&0.5	250	TOB
2002 05 03.84		I	4.9	S	0.0	E		1	&13	5			SHU
2002 05 03.84	x	M	5.0	TJ	8.0	L	7	21	12	4/	0.9	256	KOS01
2002 05 03.85	x	B	4.8	TT	6.0	B		30	14	4	0.9	240	POW01
2002 05 03.85		B	5.0	TJ	6.0	B		20	12	4/	0.3	245	SIE
2002 05 03.85	x	B	5.6:	TJ	6.0	B		20	& 9	s3/	&0.58	237	BAN01
2002 05 03.85		M	4.7	TT	0.8	E		1	20	6/			LEH
2002 05 03.85		M	4.8	TT	5.0	B		10	15	7	1		LEH
2002 05 03.85		M	5.0	TI	5.0	B		7	19	5	1		KYS
2002 05 03.86		B	4.7	TT	0.8	E		1	25	5			HOR02
2002 05 03.86	x	B	4.9	TT	5.0	B		7	&17	4/			FIL04
2002 05 03.86		B	4.9:	AA	5	R		10		6			BRU
2002 05 03.87		M	4.9	TT	5.0	B		10	19	4/	3.5	245	HOR02
2002 05 03.87		S	4.8	TJ	5.0	B		7	18	5			GIA01
2002 05 03.88	x	B	5.1:	TT	6.0	B		20	& 8	4			SCI
2002 05 03.89	x	B	4.8:	TT	5.0	B		10	&16	s4	&1	250	MAK02
2002 05 03.90	x	B	4.8	TJ	5.0	B		7	12	D5	3	240	PAR03
2002 05 03.90	x	B	4.9	TJ	5.0	B		10	18	d4	1.3	243	TRE03
2002 05 03.90		S	4.6	AA	6.0	B		20	10	6	2.2	236	CSU
2002 05 03.90	x	S	5.0	TJ	6.0	B		10	13	d2			RZE
2002 05 03.90		S	5.2	HI	8.0	B		20	8	5	0.2	260	SHA02
2002 05 03.90	x&	S	4.7	TT	5.0	B		7	8	D6			CHO01
2002 05 03.91	x	B	5.2	TJ	20	L	4	32	&11	s5	&2.1	275	TOB
2002 05 03.92	x	B	4.9	TJ	5.0	B		10	15	4/	0.5	240	MAR12
2002 05 03.92	x	B	4.9	TJ	5.0	B		10	&14	S5	&1.3	238	MAR13
2002 05 03.93	x	B	4.8	TT	5.0	B		10	25	5	&2.5	245	KEZ

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 03.93	x	M	5.2	TJ	6.0	B		30	19	d2			SZC01
2002 05 03.97	x	B	4.7	TJ	6.0	B		10	14	S3/	&1.5	240	KIS03
2002 05 03.97		E	5.6	AA	6.0	B		20	10	4	0.6m		ROM
2002 05 03.97		S	5.8:	SC	8.0	B		11				243	GAI
2002 05 03.98		B	4.5	S	7.0	B		10	15	6	1	240	MAR02
2002 05 03.98		S	5.0	TJ	5.0	B		7	14	3			VET
2002 05 03.99		I	4.9	YG	0.7	E		1					GRA04
2002 05 03.99		M	5.0	YG	5.0	B		7	13	5	1.8	230	GRA04
2002 05 03.99		S	5.1	TT	6.0	B		20	12	4	0.6	230	RES
2002 05 04.00	x	B	5.5	TJ	6.0	B		20	&12	4			WLO
2002 05 04.01	x	B	5.1	TJ	5.0	B		7	16	S5/	&0.5	250	SPE01
2002 05 04.07		S	4.7	HV	5.0	B		7	18	5	2.0	230	BIV
2002 05 04.09		B	4.7	HV	0.0	E		1	15	5			BIV
2002 05 04.19		S	5.7	TK	5.0	B		10	11	0			ARA
2002 05 04.20		B	5.2	Y	3.5	B		7	&18	5/			GRE
2002 05 04.23		S	4.7	Y	3.5	B		7	&18	5/			GRE
2002 05 04.71	x	B	5.5:	TJ	5.0	B		7	25	4			MIY01
2002 05 04.71	x	M	5.3	HV	8.0	B		11	13	5	0.4	235	MIT
2002 05 04.81		B	4.9	VF	6.0	B		20	20	5	1.5	231	MOR08
2002 05 04.81		B	5.0	AA	5	R		10		6			BRU
2002 05 04.82		M	4.9	TI	5.0	B		20	17	4	2		BAR06
2002 05 04.83		B	5.2	AA	3	O		8	19	3	0.6m	211	SER
2002 05 04.84	x	M	5.1	TJ	8.0	L	7	21	12	s4/	0.9	250	KOS01
2002 05 04.85	x	B	5.0	TT	6.0	B		30	12	4			POW01
2002 05 04.85	x	B	5.5	TJ	6.0	B		10	& 8	6	&0.3	270	TOB
2002 05 04.85		M	4.8	TT	5.0	B		10	20	7	2		LEH
2002 05 04.86	x	B	5.9	TJ	35	L	6	105	&10	D4	&30 m		CHR
2002 05 04.86		M	4.7	TT	0.8	E		1	25	6/			LEH
2002 05 04.86		S	4.6	AA	6.0	B		20	10	6	2.2	232	CSU
2002 05 04.86		S	5.2	AA	5.0	B		7	14	3			GOL
2002 05 04.87	x	B	5.0	TJ	5.0	B		10	14	4	&2.0	230	MAR12
2002 05 04.87		B	5.1	TJ	6.0	B		20	12	4/	0.3	240	SIE
2002 05 04.88	x	B	5.5	TT	6.0	B		20	&12	3/	&0.6	243	SCI
2002 05 04.88		M	4.8	S	15	L	5	42	18	6/	2.5	231	SHU
2002 05 04.88		S	4.8	AA	5.0	B		10	18	6	1	220	SAJ
2002 05 04.88		S	4.9	HI	0.7	E		1	15	4			SHA02
2002 05 04.88		S	5.2	HI	8.0	B		20	11	5	0.2	265	SHA02
2002 05 04.89		B	4.3	AA	11	B		20	20	7	4	230	NEV
2002 05 04.89	x	B	4.9	TT	5.0	B		10	12	s4	1	243	MAK02
2002 05 04.89	x	B	5.1	TT	5.0	B		7	&17	4/	&0.5	242	FIL04
2002 05 04.89	x	B	5.8	TT	4.0	B		12	16	7/	0.46	233	LEG
2002 05 04.89		I	5.1	S	0.0	E		1	&15	5			SHU
2002 05 04.90	x	B	5.7:	TJ	6.0	B		20	&14	3/	&0.55	245	BAN01
2002 05 04.90	x	S	5.1	TJ	6.0	B		10	13	d3			RZE
2002 05 04.91	x	B	5.0	TJ	6.0	B		12	20	s4/	&2		JAR01
2002 05 04.93	x	B	4.8	TJ	6.0	B		20	12	D5	3	240	PAR03
2002 05 04.94		S	5.1	TT	6.0	B		20	12	4	1	230	RES
2002 05 04.96	x	B	5.0:	TJ	5.0	B		10	&13	5	&1.5	230	MAR13
2002 05 04.96		E	5.5	AA	6.0	B		20	11	d4	0.6m		ROM
2002 05 04.96	x	I	5.0:	TJ	0.0	E		1	&10	D3			WIR01
2002 05 04.97	x	M	4.8	TJ	6.0	B		10	14	S3	&1	235	KIS03
2002 05 04.98		S	5.1	TJ	5.0	B		7	12	3			VET
2002 05 05.01	x	B	5.1	TJ	5.0	B		7	14	S5			SPE01
2002 05 05.01	x	B	5.4	TJ	6.0	B		10	&13	6			TOB
2002 05 05.01	x	B	5.4	TT	5.0	B		10	19	5/			KEZ
2002 05 05.01		I	5.0	YG	0.7	E		1					GRA04
2002 05 05.01		M	5.1	YG	5.0	B		7	13	5			GRA04
2002 05 05.04	x	B	5.1	TJ	6.0	B		10	20	s3	2.2	230	TRE03
2002 05 05.28		S	6.0	TK	5.0	B		10	7	0			ARA
2002 05 05.63	x	S	5.0	TJ	4.0	B		10	15	6			NAG08
2002 05 05.81		B	5.4	AA	3.0	B		7	11	7			GOL04
2002 05 05.84	x	M	5.1	TJ	8.0	L	7	35	12	4	1.0	245	KOS01
2002 05 05.85	x	B	4.7	TT	6.0	B		30	14	4	1.2	231	POW01
2002 05 05.85		M	4.9	TI	5.0	B		20	16	5			BAR06
2002 05 05.85		S	5.0	AA	5.0	B		7	15	3			GOL

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 05.86	x	B	5.5:	TJ	6.0	B		20	&11	3	&0.34	243	BAN01
2002 05 05.86	x	B	6.1	TJ	35	L	6	105	&10	D4	&30 m		CHR
2002 05 05.87		M	5.2	S	7	R	4	12	12	6			SHU
2002 05 05.87	x	S	5.0	TJ	25	L	6	108	12	4	&0.4		SWI
2002 05 05.88		B	4.6	AA	11	B		20	15	7	2.5	227	NEV
2002 05 05.88		B	5.1	HV	6.3	B		9	16	6	0.9	240	KAM01
2002 05 05.88	x	B	5.1	TJ	5.0	B		10	18	d4	&0.5	245	TRE03
2002 05 05.88		B	5.1	TJ	6.0	B		20	12	4/	0.4	240	SIE
2002 05 05.88	x	B	5.5	TT	6.0	B		20	& 9	3/			SCI
2002 05 05.88	x	B	5.6	TJ	6.0	B		10	&15	7	&0.5	248	TOB
2002 05 05.88	x	S	5.2	TJ	6.0	B		10	12	d3			RZE
2002 05 05.89	x	B	4.9	TT	5.0	B		10	12	s4	1	233	MAK02
2002 05 05.90	x	B	5.0	TT	5.0	B		7	&17	4/	&0.6	235	FIL04
2002 05 05.90		S	5.3	TT	6.0	B		20	15	4	1	230	RES
2002 05 05.90		S	5.4	TJ	5.0	B		7	14	5	2	238	DIJ
2002 05 05.90	x&	S	5.0	TT	5.0	B		7	10	D6			CHO01
2002 05 05.91	x	B	4.9	TJ	5.0	B		7	12	D5	3	240	PAR03
2002 05 05.91		M	5.0	TT	5.0	B		7	13	5			BOU
2002 05 05.92	x	B	4.9	TJ	6.0	B		20	12	D5	3	240	PAR03
2002 05 05.93		B	5.1	AA	3	0		8	23	3	0.6m	225	SER
2002 05 05.93		E	5.6	AA	6.0	B		20	10	4	0.6m		ROM
2002 05 05.94		I	5.2	S	0.0	E		1	&10	5			SHU
2002 05 05.95		B	4.8	TJ	0.7	E		1	15	5	2	230	CHE03
2002 05 05.96	x	B	5.0	TJ	5.0	B		10	&13	S4/	1.0	230	MAR13
2002 05 05.97		B	5.6	AA	3	0		8	23	3	0.5m		SER
2002 05 05.97	x	M	4.9	TJ	6.0	B		10	13	S3	&1.5	230	KIS03
2002 05 05.98		I	5.2	YG	0.7	E		1					GRA04
2002 05 05.98		M	5.2	YG	5.0	B		7	12	5	1.4	230	GRA04
2002 05 05.99	x	B	5.2	TJ	5.0	B		10	14	4	&1.0	230	MAR12
2002 05 05.99		S	5.2	TJ	5.0	B		7	11	2			VET
2002 05 06.03	x	B	5.4	TT	5.0	B		7	16	4/			DUS
2002 05 06.18		S	4.6	Y	3.5	B		7	&18	5			GRE
2002 05 06.19		S	4.8	Y	8.0	B		20	&12	4			GRE
2002 05 06.20		B	4.4	Y	0.0	E		1					GRE
2002 05 06.81		B	5.0	VF	6.0	B		20	18	5	1.5	237	MOR04
2002 05 06.83	x	B	5.3	TJ	6.0	B		10	&10	5			TOB
2002 05 06.83		S	5.1	AA	8.0	B		20	15	3			BAR
2002 05 06.84	x	B	4.8	TT	6.0	B		30	12	4	1	228	POW01
2002 05 06.84	x	M	5.1	TJ	8.0	L	7	35	12	4	1.1	242	KOS01
2002 05 06.84		S	5.2	TT	6.0	B		20	13	4	1	225	RES
2002 05 06.85	x&	S	4.9	TT	3.0	B		6	6	D6			CHO01
2002 05 06.86	x	M	5.0	TJ	6.0	B		10	12	s3/			KIS03
2002 05 06.86		S	5.2	AA	5.0	B		7	14	3			GOL
2002 05 06.86	x	S	5.3	TJ	6.0	B		10	12	d4			RZE01
2002 05 06.87	x	B	5.5	TJ	20	L	4	32	&15	s6			TOB
2002 05 06.88	x	B	4.8	TT	5.0	B		10	14	s4/	1	235	MAK02
2002 05 06.88	x	B	5.2	TT	5.0	B		7	&17	4/	&0.6	240	FIL04
2002 05 06.88	x	B	5.3:	TJ	5.0	B		10	13	s4			MAR12
2002 05 06.88	x	B	5.5	TT	6.0	B		20	&12	4/	&1.3	265	SCI
2002 05 06.88		M	4.9	TI	5.0	B		20	17	5			BAR06
2002 05 06.90	x	B	5.2	TT	5.0	B		10	16	5	&1.5	250	KEZ
2002 05 06.90		E	5.6	AA	6.0	B		20	9	4	0.5m		ROM
2002 05 06.91	x	B	5.2	TJ	5.0	B		10	20	d4	0.7	240	TRE03
2002 05 06.92		B	4.8	TT	0.8	E		1	22	5/			HOR02
2002 05 06.92		S	5.5	TT	8.0	B		20	12	5	0.5	225	AND01
2002 05 06.93		M	5.1	TT	5.0	B		10	18	5	2	240	HOR02
2002 05 06.94	x	B	5.5:	TJ	6.0	B		20	& 7	s3/			BAN01
2002 05 06.96		S	4.8	A	20	T	10	64	12	5			BEA
2002 05 06.98		B	5.0	HV	6.3	B		9	18	6	0.7	250	KAM01
2002 05 06.98		S	5.4	TJ	5.0	B		7	10	2			VET
2002 05 07.01	x	B	5.4	TT	5.0	B		7	18	4			DUS
2002 05 07.02		I	5.2	YG	0.7	E		1					GRA04
2002 05 07.02		M	5.2	YG	5.0	B		7	13	5			GRA04
2002 05 07.08		S	5.0	HV	0.0	E		1	20	5			BIV
2002 05 07.08		S	5.1	HV	5.0	B		7	20	4	1.2	225	BIV

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 07.83		B	5.0	SP	3.0	B		7	13	3			GOL04
2002 05 07.83		M	5.7	HD	15	L	5	30	12	6/			SHU
2002 05 07.84		B	5.0	VF	6.0	B		20	18	5	1		MOR04
2002 05 07.84	x	M	5.2	TJ	8.0	L	7	35	12	4	0.9	240	KOS01
2002 05 07.84		S	5.4	TJ	5.0	B		10	13	5	2	230	MOE
2002 05 07.85	x	B	5.2	TJ	5.0	B		7	13	4			MAR12
2002 05 07.85		M	5.4	TT	5.0	B		10	15	6/	1		LEH
2002 05 07.85		S	5.2	AA	5.0	B		10	15	6	1	240	SAJ
2002 05 07.86		M	5.3	TT	0.8	E		1	20	7			LEH
2002 05 07.86		S	5.1	AA	5.0	B		20	10	6			DIE02
2002 05 07.86	x	S	5.4	TJ	6.0	B		10	11	s4			RZE
2002 05 07.87	x	B	5.1	TT	6.0	B		30	13	4			POW01
2002 05 07.87		B	5.2	TT	5.0	B		10	9.2	4			HAS02
2002 05 07.87	x	B	5.7	TT	5.0	B		7	&20	4	&0.7	235	FIL04
2002 05 07.88	x	B	5.5	TT	5.0	B		10	13	s4/	1.2	261	MAK02
2002 05 07.88	x	B	5.6	TT	6.0	B		20	&13	4	&1.6	267	SCI
2002 05 07.88	x	B	5.7	TJ	6.0	B		20	&20	D4			CHR
2002 05 07.88		S	5.0	AA	6.0	B		20	10	6	0.5	220	CSU
2002 05 07.89		E	5.7	AA	6.0	B		20	9	5	0.5m		ROM
2002 05 07.89		S	5.3	AA	5.0	B		7	13	4			GOL
2002 05 07.89		S	5.7	HI	8.0	B		20	7	4			SHA02
2002 05 07.90	x	B	5.4	TT	5.0	B		10	14	4			KEZ
2002 05 07.90	x	B	5.5	TJ	12	L	8	50	10	3			SZC
2002 05 07.90		I	5.5	HD	0.0	E		1	&15	5			SHU
2002 05 07.90		S	5.0	HS	7.0	B		15	20	1			MER05
2002 05 07.91	x	B	5.3	TJ	5.0	B		10	20	d4	1.5	225	TRE03
2002 05 07.91	x	B	5.8:	TJ	6.0	B		20	&11	S3/			BAN01
2002 05 07.92	x	B	5.2	TJ	6.0	B		10	&15	6			TOB
2002 05 07.93		M	5.2	TJ	5.0	B		7	10	5	1	224	DIJ
2002 05 07.93		M	5.2	TT	5.0	B		7	12	4/			BOU
2002 05 07.94		S	5.3	TT	5.0	B		10	&10	6			COM
2002 05 07.94	x	S	5.6	TJ	6.0	B		30	21	d2/			SZC01
2002 05 07.95	x	B	5.9:	TJ	3.0	B		8	&20	d3			WIR01
2002 05 07.96		B	4.8	TT	0.8	E		1	23	5			HOR02
2002 05 07.96		M	5.0	TI	5.0	B		20	14	5			BAR06
2002 05 07.97		S	5.2	TT	4.0	B		8	&13	5/			SCH04
2002 05 07.97		S	5.3	TT	6.0	B		20	14	4	1.2	225	RES
2002 05 07.97		S	5.4	TT	0.7	E		1	17	3/			RES
2002 05 07.98		B	4.9	TI	0.8	E		1	20	5			CER01
2002 05 07.98		B	5.5	TI	5.0	B		7	20				SER02
2002 05 07.98		M	5.1	TT	5.0	B		10	18	5/	2.5	240	HOR02
2002 05 07.98		M	5.2	TI	5.0	B		10	20	5	3	225	CER01
2002 05 07.98	x&	S	5.3	TT	5.0	B		7	6	D5			CHO01
2002 05 07.99		I	5.2	YG	0.7	E		1					GRA04
2002 05 07.99	x	M	5.0	TJ	6.0	B		10	13	s4	&1	260	KIS03
2002 05 07.99		M	5.3	YG	5.0	B		7	13	5			GRA04
2002 05 08.01	x	B	5.1	TJ	6.0	B		10	14	S4/	&1	260	MAR13
2002 05 08.02	x	B	5.5	TT	5.0	B		7	18	4			DUS
2002 05 08.03	x	B	5.5	TJ	6.0	B		20	&10	4			WLO
2002 05 08.04	x	B	5.2	TJ	12	L	8	50	15	4			SZC
2002 05 08.08		B	5.4	TI	5.0	B		10	20				NED
2002 05 08.23		S	5.9	TK	5.0	B		10	9	0			ARA
2002 05 08.39		M	5.3	TK	5.0	B		10	12	4			LIN04
2002 05 08.61	x	S	5.1	TJ	3.5	B		7	14	6			NAG08
2002 05 08.67	x	I	5.0	TJ	0.0	E		1		8			NAG08
2002 05 08.82		B	5.0	SP	3.0	B		7	17	2			GOL04
2002 05 08.84	x	B	5.3	TJ	5.0	B		10	15	4	0.5		MAR12
2002 05 08.84	x	B	5.7	TJ	6.0	B		20	&20	D4			CHR
2002 05 08.84		E	5.7	AA	6.0	B		20	9	D5	0.6m		ROM
2002 05 08.84	x	M	5.2	TJ	8.0	L	7	35	12	4	1.0	240	KOS01
2002 05 08.85	x	B	5.2	TJ	5.0	B		10	25	d4	0.6	235	TRE03
2002 05 08.85		B	5.2	VF	6.0	B		20	18	5	1.5		MOR04
2002 05 08.85		S	5.4	AA	5.0	B		10	13	5	0.7	245	SAJ
2002 05 08.86		M	5.4	HD	7	R	4	10	13	5			SHU
2002 05 08.86	x	S	5.7	TJ	8	R	7	35	10	3	0.5	250	KWI

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 08.87	x	B	5.2	TT	6.0	B		30	12	4			POW01
2002 05 08.87	x	B	5.5	TJ	6.0	B		10	&15	6	&0.3	245	TOB
2002 05 08.87		I	5.5	HD	0.0	E		1	7	4			SHU
2002 05 08.88	x	B	5.4	TT	5.0	B		10	14	S4/	1.1	263	MAK02
2002 05 08.88	x	B	5.7	TT	6.0	B		20	&14	4	&1.5	255	SCI
2002 05 08.88		M	5.6	TT	5.0	B		10	15	6	1		LEH
2002 05 08.88		S	5.0	AA	6.0	B		20	10	6	2.0	226	CSU
2002 05 08.88		S	5.4	TT	6.0	B		20	15	4	1.5	225	RES
2002 05 08.88	x	S	5.6	TJ	6.0	B		10	12	s4			RZE
2002 05 08.89	x	B	5.5	TT	5.0	B		7	&20	4	&0.9	235	FIL04
2002 05 08.89	x	B	5.7:	TJ	6.0	B		20	&11	3			BAN01
2002 05 08.89		M	5.4	TT	0.8	E		1	20	7			LEH
2002 05 08.89		S	5.4	AA	5.0	B		7	16	3			GOL
2002 05 08.92		S	5.4	TT	6.3	B		9	13	6	1.0	225	AND01
2002 05 08.94	x	B	5.5	TJ	20	L	4	32	&18	6	&0.7	245	TOB
2002 05 08.94	x&	S	5.3	TT	5.0	B		7	6	D5			CHO01
2002 05 08.95		S	5.3	TT	5.0	B		7	16	6			KAR02
2002 05 08.96	x	B	5.2:	TJ	12	L	8	50	10	4			SZC
2002 05 08.96	x	B	5.4	TJ	5.0	B		7	14	S4/	&0.3	270	SPE01
2002 05 08.99		M	5.0	TI	4	R		8	14	4			BAR06
2002 05 09.01	x	B	5.1	TJ	6.0	B		10	13	s4	&1	255	KIS03
2002 05 09.01	x	B	5.5	TT	5.0	B		7	12	4	&1	255	DUS
2002 05 09.02	x	B	5.1	TJ	6.0	B		10	&13	S4	&1	255	MAR13
2002 05 09.02		M	5.4	TJ	5.0	B		7	14	5			GRA04
2002 05 09.15		S	5.8	TK	5.0	B		10	9	0			ARA
2002 05 09.39		M	5.5	TK	5.0	B		10	13	4			LIN04
2002 05 09.81		M	5.1	TI	6	R		10	16	5	1		BAR06
2002 05 09.83		S	5.5	AA	8.0	B		20	12	2			BAR
2002 05 09.84	x	M	5.3	TJ	8.0	L	7	35	13	s4	0.8	240	KOS01
2002 05 09.85		B	5.2	VF	6.0	B		20	18	5	1.5		MOR08
2002 05 09.85		E	5.8	AA	6.0	B		20	8	5	0.4m		ROM
2002 05 09.85		S	5.6	TT	6.0	B		20	12	4	1	225	RES
2002 05 09.86	x	B	5.7:	TJ	6.0	B		10	&12	6	&0.7	252	TOB
2002 05 09.87	x	B	5.1	TJ	5.0	B		10	25	d4	0.7	245	TRE03
2002 05 09.87	x	B	5.7	TT	6.0	B		20	&13	4	&1.0	260	SCI
2002 05 09.87		M	5.6	TT	5.0	B		10	15	6	1		LEH
2002 05 09.88	x	B	5.7	TT	5.0	B		10	11	S4/	1.3	253	MAK02
2002 05 09.88	x	M	5.3	TJ	6.0	B		10	11	s3/			KIS03
2002 05 09.88		M	5.4	TT	0.8	E		1	20	7			LEH
2002 05 09.90	x	B	5.6	TJ	6.0	B		10	14	s5			RZE
2002 05 09.96	x	B	5.3	TJ	5.0	B		7	15	S4/			SPE01
2002 05 09.96	x	B	5.4	TJ	6.0	B		20	&10	4			WLO
2002 05 09.97	x	B	5.2	TJ	3.0	B		8	&15	S3			WIR01
2002 05 09.98	x&	S	5.4	TT	5.0	B		7	6	D5			CHO01
2002 05 10.01	x	B	5.5	TT	5.0	B		7	12	4			DUS
2002 05 10.02		B	5.0	TT	0.8	E		1	20	4/			HOR02
2002 05 10.03		B	5.0	TI	0.8	E		1	20	5			CER01
2002 05 10.03		M	5.2	TI	5.0	B		10	18	5	2.5	220	CER01
2002 05 10.03		M	5.3	TT	5.0	B		10	17	4/	2	235	HOR02
2002 05 10.15		S	5.6	TJ	5.0	B		7	12	1			AMO01
2002 05 10.17		S	5.8	TK	5.0	B		10	9	0			ARA
2002 05 10.75	x	M	5.2	TK	3.5	B		7	19	5	0.5	215	YOS02
2002 05 10.84	x	B	5.4	TT	5.0	B		10	16	4			KEZ
2002 05 10.85		B	5.0	SP	3.0	B		7	17	2			GOL04
2002 05 10.85		B	5.3	VF	6.0	B		20	16	5	1.5		MOR04
2002 05 10.85		M	5.5	S	15	L	5	42	16	5	35 m		SHU
2002 05 10.86	x	B	5.2	TJ	5.0	B		10	25	d4	1.2	240	TRE03
2002 05 10.86		I	5.8	S	0.0	E		1	&18	4			SHU
2002 05 10.86	x	M	5.4	TJ	8.0	L	7	35	13	4	0.9	237	KOS01
2002 05 10.87		E	5.5	AA	6.0	B		20	10	d4/	0.5m		ROM
2002 05 10.87		S	5.5	TT	6.0	B		20	14	4	1	225	RES
2002 05 10.88	x	B	5.4:	TJ	6.0	B		10	&17	6			TOB
2002 05 10.88	x	B	5.7	TT	6.0	B		20	&10	4	&0.8	222	SCI
2002 05 10.88		S	4.8	AA	5.0	B		7	20	3			GOL
2002 05 10.91		I	5.6	TJ	0.0	E		1	15	3			MOE

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 10.93	x	B	5.4	TJ	6.0	B		10	17	s4			RZE
2002 05 10.93		S	5.1	AA	5.0	B		20	10	6			DIE02
2002 05 10.97	x&	S	5.5	TT	5.0	B		7	6	D5			CHO01
2002 05 10.98		S	5.5	TT	5.0	B		7	18	5			KAR02
2002 05 11.01	x	B	5.4	TT	5.0	B		7	12	4			DUS
2002 05 11.16		B	5.7	S	8.0	B		11		5			SAL02
2002 05 11.21		S	4.8	Y	3.5	B		7	&19	6			GRE
2002 05 11.21		S	4.9:	Y	0.0	E		1					GRE
2002 05 11.23		B	5.6	Y	5.0	B		12					GRE
2002 05 11.23		S	4.8	Y	5.0	B		12	&16	5			GRE
2002 05 11.84	x	B	5.4	TT	6.0	B		30	18	4			POW01
2002 05 11.84	x	B	5.7	TJ	6.0	B		10	&11	6			TOB
2002 05 11.85		B	5.3	VF	6.0	B		20	15	5	1.5	210	MOR04
2002 05 11.86		E	5.6	AA	6.0	B		20	10	d5	0.5m		ROM
2002 05 11.86		S	5.6	TT	6.0	B		20	14	3/	1	225	RES
2002 05 11.87	x	B	5.2	TJ	5.0	B		10	20	3/	0.8	235	TRE03
2002 05 11.88	x	B	5.4	TT	6.0	B		30	17	3/			SIE01
2002 05 11.88	x	B	5.4	TT	6.0	B		30	17	3/			SIE01
2002 05 11.88	x	B	5.8	TT	6.0	B		20	&11	3/	&0.7	270	SCI
2002 05 11.88		M	5.6	TT	5.0	B		10	10	6	1		LEH
2002 05 11.88		S	4.8	AA	4.2	B		7	25	5			ZAN
2002 05 11.89		B	5.2	TJ	5.0	B		7	20	3			CHE03
2002 05 11.89	x	M	5.2	TJ	6.0	B		20	12	D5	&2	240	PAR03
2002 05 11.89	x	M	5.4	TJ	6.0	B		10	18	s3/			KIS03
2002 05 11.89		M	5.4	TT	0.8	E		1	15	7			LEH
2002 05 11.90	x	B	4.9	TJ	6.0	B		12	15	s4/	&1		JAR01
2002 05 11.90		B	5.7	AA	5	R		10		6		255	BRU
2002 05 11.90	x	B	5.7	TJ	6.0	B		10	16	s4			RZE
2002 05 11.90		M	5.5	S	7	R	4	12	16	5			SHU
2002 05 11.90		S	5.6	SC	8.0	B		11	11				GAI
2002 05 11.91	x	B	5.6:	TJ	5.0	B		10	&20	s4	0.5	220	MAR13
2002 05 11.91	x	M	5.2	TJ	0.0	E		1	10	5			PAR03
2002 05 11.91		S	5.2	HV	0.0	E		1	20	5			BIV
2002 05 11.92		S	4.9	HI	8.0	B		20	9	4			SHA02
2002 05 11.92		S	5.2	HV	5.0	B		7	25	5	2.0	215	BIV
2002 05 11.92		S	5.5	AA	5.0	B		7	11	7	1.5	232	BEG01
2002 05 11.93		B	5.6	AA	3	O		8	23	3	0.5m		SER
2002 05 11.96	x&	S	5.1	TT	5.0	B		7	5	D5			CHO01
2002 05 11.97	x	B	5.0	TJ	3.0	B		8	&10	s3			WIR01
2002 05 11.98	x	B	5.4	TJ	5.0	B		10	25	s4/	&0.5	220	MAR12
2002 05 11.99	x	B	5.4	TJ	5.0	B		7	14	S4/			SPE01
2002 05 12.01	x	B	5.4	TT	5.0	B		7	10	4			DUS
2002 05 12.15		B	5.8	S	8.0	B		11		5			SAL02
2002 05 12.15		S	6.0	YG	5.0	B		7	18	1			AMO01
2002 05 12.21		B	6.2	TJ	9	M		48	10	1			GRE04
2002 05 12.46		M	5.4	TK	5.0	B		10	12	4			LIN04
2002 05 12.54		S	5.5	AC	4.0	B		8	15	5			MOM
2002 05 12.56		B	5.1	AA	5.0	B		7	20	4			SOW
2002 05 12.57	x	M	5.2	TT	3.5	B		7					TSU02
2002 05 12.58	x	S	5.2	TJ	5.0	B		12	11	6			NAG08
2002 05 12.59	x	I	5.0	TJ	0.0	E		1		8			NAG08
2002 05 12.69	x	M	5.6	TK	3.5	B		7	20	5			YOS02
2002 05 12.79		B	5.3	VF	6.0	B		20	20	5	1		MOR04
2002 05 12.83		B	5.2	SP	3.0	B		7	13	0			GOL04
2002 05 12.84	x	B	5.7	TJ	6.0	B		10	&10	6	&0.2	242	TOB
2002 05 12.84		E	5.7	AA	6.0	B		20	9	4/	0.3m		ROM
2002 05 12.86		B	5.7	AA	5	R		10		6			BRU
2002 05 12.88	x	B	5.8	TJ	6.0	B		10	13	s4			RZE
2002 05 12.88	x	B	6.0:	TJ	6.0	B		20	& 7	2			BAN01
2002 05 12.88		S	5.3	AA	5.0	B		7					GOL
2002 05 12.89	x	M	5.6	TJ	8.0	L	7	35	13	4	0.6	235	KOS01
2002 05 12.90	x	B	5.4	TJ	5.0	B		10	20	s3/			TRE03
2002 05 12.90		S	5.1	HI	8.0	B		20	9	3			SHA02
2002 05 12.92	x	B	5.6	TJ	6.0	B		10	22	s4/			MAR13
2002 05 12.92		M	5.5	TT	5.0	B		7	13	5/			BOU

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.92		M	5.6	TT	5.0	B		7	16	4/			DIJ
2002 05 12.92		S	5.7	AA	5.0	B		7	12	7	35 m	230	BEG01
2002 05 12.93	x	M	5.3	TJ	5.0	B		7	12	D5	&1.5	240	PAR03
2002 05 12.93		S	5.2	AA	5.0	B		20	12	6			DIE02
2002 05 12.94		S	5.3	S	3.0	B		8	&13	4/			BUS01
2002 05 12.95		B	5.4	TJ	5.0	B		7	20	3			CHE03
2002 05 12.95	x	B	5.7	TT	6.0	B		20	&12	3/	0.5	225	SCI
2002 05 12.95	x	M	5.4	TJ	6.0	B		10	22	s3/			KIS03
2002 05 12.95		S	5.2	HV	0.0	E		1	30	5			BIV
2002 05 12.96		S	5.3	HV	5.0	B		7	28	5	0.5	215	BIV
2002 05 12.98		I	5.7	S	0.0	E		1	&10	3/			SHU
2002 05 12.99	x	B	5.7	TJ	5.0	B		10	17	s4			MAR12
2002 05 12.99		S	5.2	AA	5.0	B		10	16	5			ZAN01
2002 05 12.99		S	5.7	TT	6.0	B		20	12	3/			RES
2002 05 13.00		B	5.1	TI	0.8	E		1	20	5			CER01
2002 05 13.00		M	5.3	TI	5.0	B		10	21	5	1.5	220	CER01
2002 05 13.06		B	5.5	TI	5.0	B		10	20				NED
2002 05 13.10		S	5.8	YG	5.0	B		7	18	1			AMO01
2002 05 13.16		B	5.9	S	8.0	B		11		4			SAL02
2002 05 13.79		B	5.4	VF	6.0	B		20	20	5	1		MOR04
2002 05 13.83		E	5.7	AA	6.0	B		20	10	4/	0.4m		ROM
2002 05 13.83		M	5.6	TI	5.0	B		7	15	5			KYS
2002 05 13.83		S	5.8	AA	8.0	B		20	12	4			BAR
2002 05 13.84		M	6.3	S	41	L	4	88	15	4/	25 m	195	SHU
2002 05 13.85		B	5.3	SP	3.0	B		7	11	0			GOL04
2002 05 13.86		I	5.4	TT	0.8	E		1					HAS02
2002 05 13.86		S	5.3	TT	5.0	B		10	15.9	4			HAS02
2002 05 13.86		S	5.6	TJ	5.0	B		10	16	4	1.5	230	MOE
2002 05 13.87		S	5.5	AA	5.0	B		7					GOL
2002 05 13.88		M	5.7	TT	5.0	B		10	10	6	1		LEH
2002 05 13.88		S	5.8	TT	6.0	B		20	12	3/			RES
2002 05 13.89		M	5.6	TT	0.8	E		1	15	7			LEH
2002 05 13.90		B	5.1	TI	0.8	E		1	20	5			CER01
2002 05 13.90	x	B	5.5	TJ	6.0	B		10	&10	6	&0.2	283	TOB
2002 05 13.90	x	B	5.7	TT	6.0	B		30	14	4			POW01
2002 05 13.90	x	B	5.8:	TT	6.0	B		20	& 9	3/			SCI
2002 05 13.90	x	B	5.9:	TJ	6.0	B		10	11	d3			RZE
2002 05 13.90		M	5.3	TI	5.0	B		10	18	5	2.5	215	CER01
2002 05 13.92		I	5.1	TJ	0.0	E		1					GON05
2002 05 13.92		S	5.2	TJ	5.0	B		7	15	5	0.5	220	GON05
2002 05 13.94		S	5.6	SC	8.0	B		11	25	5	0.4	25	WAR02
2002 05 13.95	x	B	6.3	TJ	6.0	B		20	&12	4			WLO
2002 05 13.96	x	B	5.6	TJ	5.0	B		7	13	S4			SPE01
2002 05 14.01	x	B	5.7	TT	5.0	B		7	&16	4	&0.6	220	FIL04
2002 05 14.12		B	5.9	HV	5.0	B		12	12	5			YUM
2002 05 14.22		S	6.0	TK	5.0	B		10	15	0			ARA
2002 05 14.34		M	5.5	TK	5.0	B		10	14	4			LIN04
2002 05 14.82		S	5.6:	AA	5.0	B		10	12	4	1	260	SAJ
2002 05 14.83		B	5.5	VF	6.0	B		20	15	5	1		MOR08
2002 05 14.84		B	5.4	TT	5.0	B		10	15.9	4			HAS02
2002 05 14.84		S	5.9	AA	8.0	B		20	12	3			BAR
2002 05 14.86		B	5.2	TT	0.8	E		1	20	4			HOR02
2002 05 14.86		M	5.7	S	7	R	4	10	13	4			SHU
2002 05 14.87		S	5.8	TT	6.0	B		20	15	3/			RES
2002 05 14.88		M	5.5	TT	8.0	B		10	19	4/			HOR02
2002 05 14.89		S	5.3	AA	5.0	B		20	16	4			DIE02
2002 05 14.89		S	5.7	HI	8.0	B		20	9	3			SHA02
2002 05 14.90		S	5.7	TJ	5.0	B		7	11	6			DIJ
2002 05 14.91		S	5.7	TT	4.0	B		8	&18	6/	&1	225	SCH04
2002 05 14.92	x	B	6.0:	TT	6.0	B		20	&10	3			SCI
2002 05 14.93		S	5.7	SC	8.0	B		11		5			WAR02
2002 05 14.97		M	5.9:	TT	5.0	B		7	15	6			JAN03
2002 05 14.98		M	5.8	TJ	5.0	B		7	15	4			GRA04
2002 05 15.01		E	5.7	AA	6.0	B		20	10	4	0.3m		ROM
2002 05 15.12		S	5.8	HV	5.0	B		12	12	4/			YUM

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 15.14		B	6.0	S	8.0	B		11		4			SAL02
2002 05 15.20		B	4.8:	Y	0.0	E		1					GRE
2002 05 15.20		S	4.9	Y	5.0	B		12	&21	3/			GRE
2002 05 15.23		S	6.1	TK	5.0	B		10	12	0/			ARA
2002 05 15.76		B	5.5	VF	6.0	B		20	20	5	1		MOR04
2002 05 15.83		S	5.7	AA	5.0	B		7	15	6	50	m 255	BEG01
2002 05 15.86		B	5.5	TT	0.8	E		1	18	4			HOR02
2002 05 15.86	x	B	6.0	TJ	6.0	B		20	&20	D3			CHR
2002 05 15.87	x	B	5.7:	TJ	5.0	B		10	14	s3/			MAR13
2002 05 15.88		M	5.7	TT	8.0	B		10	17	4			HOR02
2002 05 15.88		M	6.0	TT	5.0	B		10	10	5/	0.5		LEH
2002 05 15.89		M	5.7	TT	0.8	E		1	15	7			LEH
2002 05 15.90	x	B	6.0	TT	6.0	B		30	12	4			POW01
2002 05 15.90	x	B	6.2:	TJ	6.0	B		10	11	s3			RZE
2002 05 15.90		S	5.3	AA	5.0	B		20	16	4			DIE02
2002 05 15.90		S	5.7	HI	8.0	B		20	9	3			SHA02
2002 05 15.91		I	5.6	TJ	0.0	E		1	15	2			MOE
2002 05 15.91		M	5.7	TT	5.0	B		7	14	4/			BOU
2002 05 15.91	x	M	6.0	TJ	6.0	B		10	&15	s3			KIS03
2002 05 15.91		S	5.8	TJ	5.0	B		7	15	6			DIJ
2002 05 15.91		S	5.9	TJ	5.0	B		10	11	5	&1		COM
2002 05 15.92	x	B	6.0	TJ	5.0	B		10	13	3/			MAR12
2002 05 15.92		S	5.4	TT	0.7	E		1	18	3			RES
2002 05 15.92		S	5.6	TT	5.0	B		15	15	3/			RES
2002 05 15.93		S	5.6	TT	8.0	B		20	12	5			AND01
2002 05 15.93		S	5.7	SC	8.0	B		11	18	5	0.6	290	WAR02
2002 05 15.93		S	6.3	SC	8.0	B		11	10	5		245	GAI
2002 05 15.96		B	6.1	HV	6.3	B		9	16	6			KAM01
2002 05 15.97	x	B	5.7	TJ	5.0	B		7	15	S3/			SPE01
2002 05 15.98		I	5.7	TT	0.8	E		1					HAS02
2002 05 15.98		S	5.8	TT	5.0	B		10	18.3	4			HAS02
2002 05 15.99		S	5.3	AA	5.0	B		10	16	5			ZAN01
2002 05 15.99		S	5.6	HV	5.0	B		7	23	4			BIV
2002 05 16.00	x	B	6.1	TJ	6.0	B		20	&15	3/			WLO
2002 05 16.00		S	5.4	HV	0.0	E		1	20	5			BIV
2002 05 16.01	x	B	5.9	TJ	6.0	B		10	& 8	5			TOB
2002 05 16.13		B	6.1	S	8.0	B		11		4			SAL02
2002 05 16.15		S	6.1	TK	5.0	B		10	10	0			ARA
2002 05 16.18		B	5.1	Y	0.0	E		1					GRE
2002 05 16.19		B	5.9	TT	8.0	B		20	&18	4/			GRE
2002 05 16.19		S	5.3	Y	5.0	B		12	&20	4/			GRE
2002 05 16.20		S	6.2	TJ	9	M	13	48	19	1			GRE04
2002 05 16.81		B	5.6	VF	6.0	B		20	18	5	1		MOR04
2002 05 16.84	x	B	6.3:	TJ	6.0	B		20	& 6	2			BAN01
2002 05 16.84		M	5.2	TT	5.0	B		7	25	2/	1.5		ZNO
2002 05 16.84		O	5.0	TT	0.8	E		1	30	3			ZNO
2002 05 16.86		S	5.7	AA	5.0	B		10	15	4	0.7	255	SAJ
2002 05 16.88		B	5.7	TT	5.0	B		10	21.4	4			HAS02
2002 05 16.88	x	B	6.1	TT	6.0	B		20	&14	3	&0.5	273	SCI
2002 05 16.88		S	5.6	AA	6.0	B		20	10	5			CSU
2002 05 16.88	x	S	6.4	TJ	8	R	7	35	9	3			KWI
2002 05 16.89		B	5.4	TT	0.8	E		1	21	3/			HOR02
2002 05 16.90	x	B	6.1	TT	5.0	B		10	17	3			KEZ
2002 05 16.90		S	5.7	HI	8.0	B		20	9	4			SHA02
2002 05 16.91	x	B	5.8	TJ	5.0	B		7	14	s3			SPE01
2002 05 16.91		M	5.7	TT	8.0	B		10	18	4			HOR02
2002 05 16.91		S	5.4	AA	5.0	B		10	16	4			ZAN01
2002 05 16.92		M	5.6	TT	0.8	E		1	15	7			LEH
2002 05 16.92		M	5.7	TT	5.0	B		7	15	5			BOU
2002 05 16.92		M	5.8	TT	5.0	B		10	10	6/	1		LEH
2002 05 16.92		S	5.8	TJ	5.0	B		7	14	5			DIJ
2002 05 16.93		S	5.8	TT	4.0	B		8	&18	6	&0.5	200	SCH04
2002 05 16.95		S	6.2	SC	8.0	B		11	10	3			GAI
2002 05 16.96		B	5.5	HV	0.0	E		1	20	5			BIV
2002 05 16.96		S	5.5	HV	5.0	B		7	20	5			BIV

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 16.97	x	B	5.7	TT	5.0	B		7	&17	3/	&0.6	275	FIL04
2002 05 16.97		B	6.2	HV	6.3	B		9	16	5			KAM01
2002 05 16.98		S	5.6	TT	5.0	B		15	14	4	0.3	200	RES
2002 05 17.00		M	5.8	TJ	5.0	B		7	15	4			GRA04
2002 05 17.00		S	5.4	AA	5.0	B		20	17	4			DIE02
2002 05 17.01	x	B	5.6	TJ	5.0	B		10	15	s3/			TRE03
2002 05 17.01	x	B	6.1	TJ	6.0	B		20	&12	3/			WLO
2002 05 17.09		S	6.3	TK	5.0	B		10	14	0/			ARA
2002 05 17.13		S	5.7	YG	5.0	B		7	25	2			AMO01
2002 05 17.39		M	5.8	TK	5.0	B		10	12	3			LIN04
2002 05 17.79		B	5.6	VF	6.0	B		20	18	4/	0.5		MOR08
2002 05 17.86		M	5.8	TT	5.0	B		10	10	6	0.5		LEH
2002 05 17.87		M	5.6	TT	0.8	E		1	15	7			LEH
2002 05 17.88		M	5.7	HD	8	M	6	28	15	4			SHU
2002 05 17.88		S	5.7	AA	5.0	B		10	15	s3	0.5	270	SAJ
2002 05 17.88		S	5.8	TT	5.0	B		15	14	4	0.2	200	RES
2002 05 17.92	x	B	5.4	TJ	3.0	B		8	&20	3			WIR01
2002 05 17.92		B	5.4	TT	0.8	E		1	20	4			HOR02
2002 05 17.92	x	B	5.9	TJ	6.0	B		20	15	3			SIW
2002 05 17.92	x	M	6.0	TJ	8.0	L	7	35	&12	4	0.5	240	KOS01
2002 05 17.94	x	B	6.1	TT	6.0	B		30	12	3/			POW01
2002 05 17.94		M	5.7	TT	8.0	B		10	18	4			HOR02
2002 05 17.94		S	5.8	TJ	5.0	B		7	13	4/			DIJ
2002 05 17.96		M	5.8	TT	5.0	B		7	15	4/			BOU
2002 05 17.97		M	5.8	TJ	5.0	B		7	14	4			GRA04
2002 05 18.04		S	6.0	TK	5.0	B		7	25	4			HOD01
2002 05 18.12		B	6.1	S	8.0	B		11		3			SAL02
2002 05 18.52	x	M	6.1	HV	8.0	B		11	13	4			MIT
2002 05 18.77		B	5.7	VF	6.0	B		20	15	4/	0.5		MOR04
2002 05 18.84	x	B	6.1	TJ	6.0	B		20	&20	D3			CHR
2002 05 18.84	x	B	6.2	TJ	6.0	B		10	&10	3			TOB
2002 05 18.84		M	5.4	TT	5.0	B		7	22	2/	1.2		ZNO
2002 05 18.85		B	5.5	TT	0.8	E		1	19	3/			HOR02
2002 05 18.85	x	B	6.3:	TJ	6.0	B		20	& 6	2			BAN01
2002 05 18.86		M	5.8	TT	5.0	B		10	10	6	0.5		LEH
2002 05 18.86		S	6.0	AA	5.0	B		10	12	s3	0.5	260	SAJ
2002 05 18.87		M	5.8	TT	8.0	B		10	17	4			HOR02
2002 05 18.87	x	M	6.0	TJ	6.0	B		10	12	s3			RZE
2002 05 18.87		S	5.7	TT	5.0	B		15	13	3			RES
2002 05 18.88	x	B	6.4	TT	6.0	B		20	&12	3/	&0.5	253	SCI
2002 05 18.88		M	5.6	TT	0.8	E		1	15	7			LEH
2002 05 18.90	x	B	6.3	TJ	5.0	B		12	10	3/			SMY
2002 05 18.90	x	M	5.8	TT	5.0	B		10	16	5			PIL
2002 05 18.91	x	B	5.8	TJ	5.0	B		10	14	s3			TRE03
2002 05 18.91	x	B	6.1	TT	4.0	B		12	9	3			LEG
2002 05 18.91	x	B	6.2	TT	6.0	B		30	11	3/			POW01
2002 05 18.91	x	M	5.7	TJ	25	L	6	54	14	5			SWI
2002 05 18.91	x	M	5.9	TJ	5.0	B		7	10	d4			PAR03
2002 05 18.92	x	B	5.8	TT	5.0	B		10	8	2/			KEZ
2002 05 18.92	x	M	6.1	TJ	8.0	L	7	35	12	4			KOS01
2002 05 18.94	x	M	6.1	TJ	5.0	B		15	&12	s3			KIS03
2002 05 18.97	x	B	5.9	TT	5.0	B		7	&14	4	&0.5	250	FIL04
2002 05 18.98	x	B	6.4	TJ	5.0	B		10	& 9	s3			MAR13
2002 05 18.98		M	5.9	TJ	5.0	B		7	13	4			GRA04
2002 05 18.99	x	B	6.1	TJ	5.0	B		10	10	3			MAR12
2002 05 19.00	x	B	6.0	TJ	5.0	B		7	9	s3			SPE01
2002 05 19.01	x	B	6.4	TJ	6.0	B		20	&10	3/			WLO
2002 05 19.01		M	5.6	TI	8.0	B		12	17	3/			BAR06
2002 05 19.02		S	5.6	HV	0.0	E		1	20	5			BIV
2002 05 19.03		S	5.6	HV	5.0	B		7	22	5			BIV
2002 05 19.12		B	6.1	S	8.0	B		11		3			SAL02
2002 05 19.12		S	5.9	TK	5.0	B		10	17	0			ARA
2002 05 19.24		S	5.2	Y	5.0	B		12	&18	4			GRE
2002 05 19.46		M	5.8	TK	5.0	B		10	13	3			LIN04
2002 05 19.58	x	S	5.9	TJ	5.0	B		12	10	5			NAG08

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 19.60		B	5.2	AA	5.0	B		7	10	4			SOW
2002 05 19.73	x	M	6.1	TK	3.5	B		7	18	4			YOS02
2002 05 19.83		B	5.7	VF	6.0	B		20	15	4	0.5		MOR04
2002 05 19.84	x	B	6.1	TJ	6.0	B		20	&20	D3			CHR
2002 05 19.85	x	B	6.7:	TJ	6.0	B		20	& 8	2			BAN01
2002 05 19.87		M	5.7	HD	7	R	4	17	14	4			SHU
2002 05 19.91		S	5.9	TJ	5.0	B		7	15	4			GON05
2002 05 19.93	x	M	6.2	TJ	8.0	L	7	35	12	3/			KOS01
2002 05 19.96		M	6.0	TT	5.0	B		7	15	4			BOU
2002 05 19.99		S	5.7	AA	6.0	B		20	11	5			CSU
2002 05 20.01		M	5.7	AC	6	R		10	15	4			BAR06
2002 05 20.02		S	6.0	TJ	5.0	B		7	14	4			DIJ
2002 05 20.13		B	6.2	S	8.0	B		11		3			SAL02
2002 05 20.41		M	5.8	TK	5.0	B		10	12	3			LIN04
2002 05 20.69	x	S	5.8	TJ	3.5	B		7	11	6			NAG08
2002 05 20.72	x	M	5.5	TT	3.5	B		7	20	4			TSU02
2002 05 20.81		B	5.8	VF	6.0	B		20	14	4	0.5		MOR04
2002 05 20.85		S	5.9	TT	5.0	B		10	14.7	4			HAS02
2002 05 20.86		S	6.2	AA	8.0	B		20	12	3			BAR
2002 05 20.88		S	5.9	TT	5.0	B		15	10	3/			RES
2002 05 20.90	x	S	6.3:	TJ	5.0	B		10	7	2/			MAR12
2002 05 20.91	x	B	6.2:	TT	6.0	B		30	10	3/			POW01
2002 05 20.93	x	M	6.3	TJ	8.0	L	7	35	11	s3/	&0.5	250	KOS01
2002 05 20.94	x	B	6.3	TJ	6.0	B		20	16	D6/			MAR11
2002 05 20.94		S	6.1	TJ	5.0	B		7	12	3/			DIJ
2002 05 20.96	x	B	6.0	TJ	6.0	B		20	15	6			OSS
2002 05 20.96	x	B	6.2	TJ	3.0	B		8	&15	3			WIR01
2002 05 20.96		B	6.2:	TJ	5.0	B		7	12	3			CHE03
2002 05 20.96		M	6.0	TT	5.0	B		7	15	3/			BOU
2002 05 20.99	x	B	6.0	TJ	11.0	L	7	30	19	D6/			MAR11
2002 05 21.01		M	6.0	AC	6	R		10	15	4			BAR06
2002 05 21.21		S	5.6	HV	5.0	B		12	&18	4			GRE
2002 05 21.41		M	5.9	TK	5.0	B		10	8	3			LIN04
2002 05 21.58	x	M	6.3	HV	8.0	B		11	12	4			MIT
2002 05 21.63	x	S	6.1	TJ	8.0	B		11	9	5			NAG08
2002 05 21.79		B	5.8	VF	6.0	B		20	12	4	0.5		MOR08
2002 05 21.87		S	6.0	TT	5.0	B		10	10.5	4			HAS02
2002 05 21.87		S	6.0	TT	5.0	B		15	11	3/			RES
2002 05 21.88	x	B	6.8	TT	6.0	B		20	& 7	3			SCI
2002 05 21.89	x	S	6.5:	TJ	5.0	B		10	7	2			MAR12
2002 05 21.93	x	M	6.5	TJ	8.0	L	7	35	10	3/			KOS01
2002 05 21.94		S	6.1	TT	5.0	B		7	14	3/			BOU
2002 05 21.96		M	5.7	HD	5	R	7	12	9	3/			SHU
2002 05 21.96		S	6.0	TJ	5.0	B		7	12	3/			DIJ
2002 05 21.98	x	B	6.3	TJ	5.0	B		7	10	s3			SPE01
2002 05 21.98	x	B	6.4:	TJ	6.0	B		20	& 8	3/			WLO
2002 05 21.98		S	6.1	TJ	5.0	B		7	11	3/			GRA04
2002 05 21.98		S	6.1	TJ	7.0	R	7	24	11	4			GRA04
2002 05 22.01	x	B	6.3	TT	5.0	B		7	&13	3			FIL04
2002 05 22.05		S	5.8	YG	5.0	B		7	17	1			AMO01
2002 05 22.31		S	5.3	Y	5.0	B		12	&16	4			GRE
2002 05 22.39		M	6.0	TK	5.0	B		10	9	3			LIN04
2002 05 22.79		B	5.9	VF	6.0	B		20	12	4	0.5		MOR04
2002 05 22.87		M	5.8	S	7	R	4	17	9	3			SHU
2002 05 22.87	x	S	6.2	TJ	25	L	6	54	& 6	4			SWI
2002 05 22.88	x	B	7.4:	TJ	6.0	B		20	& 6	1			BAN01
2002 05 22.88		S	6.4	TT	5.0	B		15	8	3			RES
2002 05 22.89	x	S	6.6	TT	6.0	B		20	&11	2/			SCI
2002 05 22.90	x	S	6.4:	TJ	5.0	B		10	7	2/			MAR12
2002 05 22.91		S	6.1	VB	8.0	B		20	9	3			SHA02
2002 05 22.95	x	B	6.5	TJ	6.0	B		10	& 8	s2/			KIS03
2002 05 22.96	x	B	6.7:	TJ	6.0	B		20	& 8	3/			WLO
2002 05 23.11		S	6.0	YG	5.0	B		7	15	3			AMO01
2002 05 23.12		S	5.5	Y	5.0	B		12	&15	3/			GRE
2002 05 23.46		S	6.1	TK	5.0	B		10	7	3			LIN04

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 23.77		B	6.0	VF	6.0	B		20	12	4	0.5		MOR04
2002 05 23.91		S	6.4	AA	5.0	B		20	12	3			DIE02
2002 05 23.94	x	M	6.6	TJ	8.0	L	7	35	9	3			KOS01
2002 05 23.98		S	6.3	TT	5.0	B		7	13	3			BOU
2002 05 23.99		S	6.0	HV	5.0	B		7	17	4			BIV
2002 05 24.00		S	6.1	TJ	5.0	B		7	14	3			DIJ
2002 05 24.06		S	6.0	YG	5.0	B		7	10	0/			AMO01
2002 05 24.58	x	S	6.2	TJ	8.0	B		11	9	5			NAG08
2002 05 24.61	x	M	6.2	HV	8.0	B		11	11	3/			MIT
2002 05 24.80		B	6.2	VF	6.0	B		20	12	4	0.5		MOR04
2002 05 24.85		S	6.3	AA	8.0	B		20	12	3			BAR
2002 05 24.89		S	6.3	TT	5.0	B		15	7	3			RES
2002 05 24.96		S	6.3	TJ	5.0	B		7	12	2/			DIJ
2002 05 24.96		S	6.3	TT	5.0	B		10	11.5	3			BOU
2002 05 24.99		M	6.3	S	7	R	4	17	& 6	4			SHU
2002 05 25.15		S	6.2	YG	8.0	B		20	8	0/			AMO01
2002 05 25.44		S	6.1	TK	5.0	B		10	7	3			LIN04
2002 05 25.50	x	S	6.4	TJ	8.0	B		11	8	4			NAG08
2002 05 25.96		S	6.4	TJ	5.0	B		7	12	2/			DIJ
2002 05 25.97		S	6.4	TT	8.0	B		15	10	2/			BOU
2002 05 26.03		S	6.4	YG	8.0	B		20	5	0/			AMO01
2002 05 26.93	x	M	6.8	TJ	8.0	L	7	35	9	2/			KOS01
2002 05 26.93		S	6.4	VB	8.0	B		20	8	3			SHA02
2002 05 26.94		S	6.5	TJ	5.0	B		7	10	2/			DIJ
2002 05 26.95		S	6.5	TT	5.0	B		10	10	3			BOU
2002 05 27.39		S	6.2	TK	5.0	B		10	8	3			LIN04
2002 05 27.86		S	6.2	AA	5.0	B		20	12	3			DIE02
2002 05 27.94		S	6.4	VB	8.0	B		20	6	4			SHA02
2002 05 28.49	x	S	6.6	TJ	8.0	B		11	9	5			NAG08
2002 05 28.75		M	6.2	TT	5.0	B		10	10	4			LEH
2002 05 28.81		B	6.4	VF	6.0	B		20	14	4	0.5		MOR08
2002 05 28.86		S	6.5	AA	8.0	B		20	10	4			BAR
2002 05 28.93	x	M	6.6	TJ	5.0	B		10	8	2/			KOS01
2002 05 28.93		S	6.3	VB	8.0	B		20	7	3			SHA02
2002 05 28.93		S	6.5	TT	5.0	B		7	11	3/			BOU
2002 05 29.28		S	6.3	TK	5.0	B		10	10	3			LIN04
2002 05 29.76		M	6.3	TT	5.0	B		10	10	4			LEH
2002 05 29.79		B	4.3	VF	6.0	B		20	15	5	2	255	MOR04
2002 05 29.81		B	6.5	VF	6.0	B		20	15	4	0.5		MOR04
2002 05 29.86		S	6.7	AA	8.0	B		20	9	3			BAR
2002 05 29.87	x&	S	6.7	TT	5.0	B		7	6	D3			CHO01
2002 05 29.88		M	6.2	TT	5.0	B		10	21	2/			HOR02
2002 05 29.93		S	6.3	AA	5.0	B		20	12	3			DIE02
2002 05 29.93		S	6.6	TJ	5.0	B		7	16	2/			DIJ
2002 05 29.94		S	6.5	TT	4.0	B		8	&15	6			SCH04
2002 05 29.95		S	6.6	TT	5.0	B		7	12	3			BOU
2002 05 29.96		S	6.2	AA	4.2	B		7	16	4			ZAN
2002 05 29.99		S	6.5	VB	8.0	B		20	9	3			SHA02
2002 05 30.32		S	6.1	TK	5.0	B		10	10	3			LIN04
2002 05 30.74		M	6.4	TT	5.0	B		10	10	4			LEH
2002 05 30.77		B	4.3	VF	6.0	B		20	15	5	1.5	250	MOR04
2002 05 30.86		M	6.1	TT	5.0	B		7	17	2	0.6		ZNO
2002 05 30.87		S	6.2:	AA	5.0	B		10	13	s3	0.3	290	SAJ
2002 05 30.88		S	6.2	AA	6.0	B		20	15	4			CSU
2002 05 30.89		M	6.5	S	7	R	4	17	8	4/			SHU
2002 05 30.92	x	B	6.8	TJ	5.0	B		7	14	s2/			SPE01
2002 05 30.92		S	6.3	TJ	5.0	B		7	13	3			GON05
2002 05 30.92		S	6.9	TT	6.0	B		20	10	3/			RES
2002 05 30.93	x	B	7.5	TJ	6.0	B		20	& 7	3			WLO
2002 05 30.93		S	6.6	TJ	5.0	B		7	13	2/			DIJ
2002 05 30.94	x	B	7.4	TJ	3.0	B		8	&20	3			WIR01
2002 05 30.94		S	6.3	VB	8.0	B		20	7	3			SHA02
2002 05 30.96	x	B	7.7	TT	6.6	B		20	& 9	D2/			FIL04
2002 05 30.96		S	6.6	TT	5.0	B		7	12	3			BOU
2002 05 31.40		S	6.3	TK	5.0	B		10	9	3			LIN04

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 31.63	x	S	6.7	TJ	8.0	B		11	9	5			NAG08
2002 05 31.78		M	6.4	TT	5.0	B		10	10	4			LEH
2002 05 31.81		B	6.7	VF	6.0	B		20	14	4			MOR04
2002 05 31.87	x	B	7.0	TJ	6.5	R	6	28	7	2			SWI
2002 05 31.87		M	6.8	S	7	R	4	17	10	3			SHU
2002 05 31.88	x	B	6.9	TJ	5.0	B		10	9	2/			MAR12
2002 05 31.88	x	B	7.4	TJ	6.0	B		20	&10	d3			CHR
2002 05 31.88	x	B	7.6:	TJ	5.0	B		10	9	2/			MAR13
2002 05 31.88		M	6.2	TT	5.0	B		10	20	2/			HOR02
2002 05 31.90		S	6.9	TT	6.0	B		20	10	3			RES
2002 05 31.91	x	S	7.7	TT	6.7	B		20	& 6	2			SCI
2002 05 31.92	x	M	7.1	TJ	8.0	L	7	35	6	2			KOS01
2002 05 31.94	x	B	7.3	TJ	6.0	B		20	& 6	3/			WLO
2002 05 31.94		S	6.4	VB	8.0	B		20	7	3			SHA02
2002 05 31.94		S	6.7	TJ	5.0	B		7	13	3			DIJ
2002 05 31.94		S	6.7	TT	5.0	B		7	11	3/			BOU
2002 05 31.95	x	B	7.2	TJ	6.0	B		10	& 5	s2			KIS03
2002 05 31.95		S	6.2	AA	5.0	B		20	12	3			DIE02
2002 05 31.96		S	5.9	AA	4.2	B		7	19	4			ZAN
2002 05 31.96		S	7.2	TT	5.0	B		10	7.4	3			HAS02
2002 05 31.99	x	B	7.5:	TJ	6.0	B		20	&10	1			BAN01
2002 06 01.13		S	5.7	Y	5.0	B		12	&17	1			GRE
2002 06 01.15		S	6.0	Y	8.0	B		20	&12	2/			GRE
2002 06 01.84	x	B	7.6	TJ	6.0	B		20	&10	d3			CHR
2002 06 01.87	x	M	7.3	TJ	25	L	6	108	6	3			SWI
2002 06 01.88		M	6.6	TT	5.0	B		10	10	3			LEH
2002 06 01.89		S	7.0	TT	6.0	B		20	9	3			RES
2002 06 01.96		S	7.2	HD	8.0	B		11	3	6	0.30		DES01
2002 06 01.97		S	7.2	TJ	8.0	B		11	10	2			SOU01
2002 06 01.99		M	6.3	TT	5.0	B		10	19	2			HOR02
2002 06 02.01		S	6.7	VB	8.0	B		20	7	4			SHA02
2002 06 02.02		S	6.6	VB	5.0	B		7	9	3			SHA02
2002 06 02.04		S	7.5	TK	5.0	B		7	9	1			AMO01
2002 06 02.13		S	6.6	HV	8.0	B		20	&10	1/			GRE
2002 06 02.15		S	6.1	Y	5.0	B		12	&13	0/			GRE
2002 06 02.37		S	6.6	TK	5.0	B		10	13	3	20	m 300	LIN04
2002 06 02.44		M	7.2	TJ	5.0	B		10	13	4/			RAE
2002 06 02.49	x	M	6.7	TJ	5.0	B		12	12	4/			NAG08
2002 06 02.52	x	S	7.1	HV	8.0	B		11	10	3			MIT
2002 06 02.79		M	6.6	TT	5.0	B		10	10	3			LEH
2002 06 02.83		B	6.8	VF	6.0	B		20	16	3/			MOR04
2002 06 02.88		M	6.3	TT	5.0	B		10	23	2			HOR02
2002 06 02.88		S	6.4	AA	6.0	B		20	15	4			CSU
2002 06 02.96	x	B	7.2:	TJ	6.0	B		10	& 4	s2			KIS03
2002 06 03.12		S	7.1	TK	5.0	B		7	20	3			HOD01
2002 06 03.13		S	6.2	HV	3.5	B		7	&18	2			GRE
2002 06 03.13		S	6.2	HV	5.0	B		12	&16	2/			GRE
2002 06 03.14		S	6.4	HV	8.0	B		20	&15	3/			GRE
2002 06 03.34		M	7.0	TJ	5.0	B		10	14	4			RAE
2002 06 03.79		M	6.8	TT	5.0	B		10	10	3			LEH
2002 06 03.81		B	6.8	VF	6.0	B		20	16	3/			MOR08
2002 06 03.88		M	6.3	TT	5.0	B		7	18	2			ZNO
2002 06 03.88	x	S	7.8	TT	6.7	B		20	& 7	2/			SCI
2002 06 03.89	x	B	7.3	TJ	5.0	B		10	5	2/			MAR12
2002 06 03.90		S	7.1	TT	6.0	B		20	8	3/			RES
2002 06 03.91	x	B	7.1	TJ	5.0	B		10	8	s2			TRE03
2002 06 03.91	x&	S	6.5	TT	5.0	B		7	5	d1			CHO01
2002 06 03.93		M	6.4	TT	5.0	B		10	22	2			HOR02
2002 06 03.94	x	B	7.0	TJ	8.0	B		20	11	d1/			SPE01
2002 06 03.94	x	B	7.5	TJ	6.0	B		20	& 6	3/			WLO
2002 06 03.95	x	B	7.2	TJ	6.0	B		10	6	s2			KIS03
2002 06 03.96		S	6.8	VB	8.0	B		20	8	2			SHA02
2002 06 04.01		S	7.4	TK	8.0	B		20	10	0/			AMO01
2002 06 04.12		S	6.5	HV	8.0	B		20	&10	4/			GRE
2002 06 04.38		M	7.2	TT	5.0	B		10	15	4			RAE

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 04.39		S	6.6	TK	5.0	B		10	10	3			LIN04
2002 06 04.54	x	M	6.9	TJ	5.0	B		12	10	4/			NAG08
2002 06 04.81		B	6.9	VF	6.0	B		20	16	3/			MOR04
2002 06 04.84	x	B	7.6	TJ	6.0	B		20	& 8	d3			CHR
2002 06 04.88		M	6.5	TT	5.0	B		10	19	2			HOR02
2002 06 04.88	x	S	7.9	TT	6.7	B		20	& 5	2			SCI
2002 06 04.89	x	M	7.8	TJ	25	L	6	108	6	4			SWI
2002 06 04.90		M	7.6	S	7	R	4	17	10	3			SHU
2002 06 04.92	x	B	7.6	TJ	5.0	B		10	5	2/			MAR12
2002 06 04.92	x	B	7.6	TJ	6.0	B		20	& 6	3			WL0
2002 06 04.92	x	B	7.8	TJ	5.0	B		10	5	2			MAR13
2002 06 04.92	x	M	7.5	TJ	8.0	L	7	35	5	2			KOS01
2002 06 04.92	x	S	7.1	TJ	15	L	6	100	7	2/			KEZ
2002 06 04.93		S	6.8	VB	8.0	B		20	8	2			SHA02
2002 06 04.94	x	B	6.9	TJ	8.0	B		20	11	d1/			SPE01
2002 06 04.95	x	B	7.4	TJ	5.0	B		15	& 5	s2			KIS03
2002 06 05.00		S	7.4	TK	8.0	B		20	10	1/			AMO01
2002 06 05.15		S	7.7	TK	5.0	B		7	15	2			HOD01
2002 06 05.82		B	7.1	VF	6.0	B		20	15	3/			MOR04
2002 06 05.88	x	B	7.7	TJ	6.0	B		20	& 8	d3			CHR
2002 06 05.88	x	S	8.0:	TT	6.7	B		20	& 6	1/			SCI
2002 06 05.89	x	B	8.3	TT	6.6	B		20	& 8	2/			FIL04
2002 06 05.89		S	7.2	TT	6.0	B		20	9	3			RES
2002 06 05.90		M	7.6	S	7	R	4	17	10	3			SHU
2002 06 05.90		S	6.6	AA	5.0	B		20	7	2			DIE02
2002 06 05.91	x	S	7.2	TJ	5.0	B		10	8	s2	0.8	285	TRE03
2002 06 05.92	x	B	7.8	TJ	5.0	B		10	5	2			MAR13
2002 06 05.92	x	M	7.6	TJ	8.0	L	7	35	5	2			KOS01
2002 06 05.92	x	S	7.7	TJ	5.0	B		10	5	2/			MAR12
2002 06 05.93	x	B	7.5	TJ	6.0	B		20	& 6	2/			WL0
2002 06 05.95	x	B	8.2:	TJ	6.5	R	6	26	& 8	3			WIR01
2002 06 05.97	x	B	7.5:	TJ	6.0	B		20	& 7	0			BAN01
2002 06 05.98	x	S	7.7	TJ	20	L	6	36	5	s2			KIS03
2002 06 06.46		M	7.1	TT	5.0	B		10	12	4	30 m		RAE
2002 06 06.57	x	M	6.8	TJ	5.0	B		12	12	4/			NAG08
2002 06 06.61	x	M	7.1	TT	3.5	B		7	11	4			TSU02
2002 06 06.81		B	7.2	VF	6.0	B		20	14	3/			MOR04
2002 06 06.87		S	6.9	TT	6.0	B		20	9	3			RES
2002 06 06.89		M	7.9	S	7	R	4	17	10	2/			SHU
2002 06 06.92	x&	S	7.3	TT	5.0	B		7	3.5	d1			CHO01
2002 06 07.12		B	8.0	S	8.0	B		11		3			SAL02
2002 06 07.15		S	8.5	TK	18	L	5	45	8	2			HOD01
2002 06 07.63		S	7.2	TJ	25.4	T	6	32	8.5	3			YOS04
2002 06 07.81		B	7.2	VF	6.0	B		20	14	3/			MOR08
2002 06 07.87		S	7.6	TJ	7.0	B		16	10	3			GIA01
2002 06 07.89		M	6.6	TT	5.0	B		10	17	2			HOR02
2002 06 07.90		M	7.7	S	7	R	4	17	10	2/			SHU
2002 06 08.12		B	8.2	S	8.0	B		11		3			SAL02
2002 06 08.90		M	7.7	S	7	R	4	17	10	3			SHU
2002 06 09.13		B	8.4	S	8.0	B		11		3			SAL02
2002 06 09.53	x	M	7.2	TJ	5.0	B		12	10	4			NAG08
2002 06 09.68	x	S	7.2	TK	10.0	B		20	11	3			YOS02
2002 06 09.69		S	7.0	AA	5.0	B		7	9	2			BEG01
2002 06 09.90		M	7.6	HD	7	R	4	17	7	3			SHU
2002 06 09.98		S	7.7	VB	8.0	B		20	6	3			SHA02
2002 06 10.12		B	8.6	S	8.0	B		11		3			SAL02
2002 06 10.87		S	6.9	AA	5.0	B		7	9	2			BEG01
2002 06 10.90		M	7.9	HD	7	R	4	17	7	3			SHU
2002 06 10.90		S	7.2	AA	5.0	B		20	7	2			DIE02
2002 06 10.94		S	7.7	VB	8.0	B		20	7	3			SHA02
2002 06 10.95		S	6.9	TJ	8.0	B		11	13	4	0.5	310	GON05
2002 06 11.87		M	6.9	TT	5.0	B		7	18	2			ZN0
2002 06 11.88	x	S	8.8	TT	7	R	6	30	6	2/			LEG
2002 06 11.89		M	8.2	HD	7	R	4	17	6	2			SHU
2002 06 11.92	x	M	8.1	TJ	8.0	L	7	35	5	2			KOS01

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 11.93		S	7.0	HV	6.3	B		9	16	3			KAM01
2002 06 11.93	x	S	8.0	TT	6.0	B		20	& 7	1			SCI
2002 06 11.94	x	B	8.2	TT	6.6	B		20	& 8	2/			FIL04
2002 06 11.94		S	7.0	AA	5.0	B		7	10	2			BEG01
2002 06 11.94		S	7.1	TT	6.0	B		20	7	3/			RES
2002 06 11.95	x	B	8.0	TJ	6.0	B		20	& 6	2			WLO
2002 06 11.95		M	6.7	TT	5.0	B		10	17	2			HOR02
2002 06 11.96		S	7.3	TT	8.0	B		15	9	1/			BOU
2002 06 11.96	x	S	8.5:	TJ	15.0	L	5	30	7	d2			SPE01
2002 06 11.97		S	7.4	AA	6.0	B		20	11	3			CSU
2002 06 12.12		B	8.8	S	8.0	B		11		3			SAL02
2002 06 12.13		S	9.0	TK	20	L	8	80	4	4			HOD01
2002 06 12.84	x	B	8.2	TJ	6.0	B		20	& 5	d2/			CHR
2002 06 12.89		S	7.4	AA	6.0	B		20	11	3			CSU
2002 06 12.89	x	S	8.0	TJ	5.0	B		10	5	2			MAR12
2002 06 12.89	x	S	8.3:	TJ	5.0	B		15	& 5	s1/			KIS03
2002 06 12.90		M	7.5	TT	5.0	B		10	8	3			LEH
2002 06 12.92		M	6.8	TT	5.0	B		10	18	2			HOR02
2002 06 12.93	x	S	8.3:	TT	6.0	B		20	& 6	1			SCI
2002 06 12.94	x	M	8.2	TJ	8.0	L	7	35	4	2			KOS01
2002 06 12.94		S	7.1	TJ	8.0	B		11	12	4	0.3	310	GON05
2002 06 12.95	x	B	8.3	TT	6.6	B		20	& 8	2			FIL04
2002 06 12.99	x	S	8.0:	TJ	6.0	B		20	& 6	0			BAN01
2002 06 13.75		B	7.5	VF	6.0	B		20	14	3/			MOR04
2002 06 13.89		M	6.9	TT	5.0	B		10	15	2			HOR02
2002 06 13.91		S	7.2	TT	6.0	B		20	7	3			RES
2002 06 14.09		S	9.2	TK	20	L	8	80	4				HOD01
2002 06 14.88		M	7.1	TT	5.0	B		7	16	2			ZNO
2002 06 14.88		S	7.7	AA	6.0	B		20	9	3			CSU
2002 06 14.91	x	B	7.7	TJ	5.0	B		10	5	2			MAR12
2002 06 14.92		S	7.2	TT	6.0	B		20	7	3			RES
2002 06 14.95	x	S	9.0:	TJ	20	L	6	37	& 5	1			KIS03
2002 06 14.97		M	7.0	TT	5.0	B		10	15	2/			HOR02
2002 06 14.98		S	7.4	TK	5.0	B		7	8	2/			GRA04
2002 06 14.99		S	7.1	HV	6.3	B		9	15	2			KAM01
2002 06 15.38		M	7.1	TT	5.0	B		10	11	3			RAE
2002 06 15.75		B	7.7	VF	6.0	B		20	15	3/			MOR04
2002 06 15.84	x	B	8.5	TJ	35	L	6	105	& 5	d2/			CHR
2002 06 15.92		S	7.7	AA	6.0	B		20	9	3			CSU
2002 06 15.93		S	7.3	TT	6.0	B		20	5	3			RES
2002 06 15.93	x	S	8.4:	TT	6.0	B		20	& 6	1			SCI
2002 06 15.96		M	7.9	TT	10	B	4	25	6	3			LEH
2002 06 15.98		M	8.1	S	7.0	B		10	12	3			MAR02
2002 06 15.99		M	7.8	S	7.0	B		10	15	4			SAN04
2002 06 16.02		S	7.5	TK	5.0	B		7	9	2			GRA04
2002 06 16.16		S	9.6	TK	20	L		100	5	2			HOD01
2002 06 16.35		M	7.1	TT	5.0	B		10	12	3			RAE
2002 06 16.61	x	S	7.4	TJ	8.0	B		11	11	3/			NAG08
2002 06 16.94	x	M	8.4:	TJ	8.0	L	7	35	4	2			KOS01
2002 06 16.95	x	S	9.1	TJ	20	L	6	37	& 5	1			KIS03
2002 06 16.96		S	7.4	TT	6.0	B		20	5	3			RES
2002 06 16.96	x	S	7.8	TJ	5.0	B		10	7	1/			MAR12
2002 06 16.97	x	S	8.5:	TT	6.0	B		20	& 6	1			SCI
2002 06 17.03		S	7.4	TJ	8.0	B		11	12	3	0.3	300	GON05
2002 06 17.88		M	8.0	TT	10	B	4	25	6	3			LEH
2002 06 17.92		S	7.7	TT	6.0	B		20	5	2/			RES
2002 06 17.96	x	S	8.6:	TT	6.0	B		20	& 4	1			SCI
2002 06 17.97		S	7.9	TT	15.6	L	5	29	7	1/			BOU
2002 06 17.97	x	S	8.0:	TJ	6.0	B		20	4	1			MAR12
2002 06 18.11		S	8.5	TK	25	L	4	45	5	2			LIN04
2002 06 18.14		S	9.1	TK	20	L		100	6	2			HOD01
2002 06 18.88		M	8.1	TT	10	B	4	25	6	2/			LEH
2002 06 18.90	x	B	8.0	TJ	25	L	6	54	3	3			SWI
2002 06 18.96	x	S	8.7:	TT	6.0	B		20	& 5	1			SCI
2002 06 18.98		S	7.4	TT	8.0	B		10	14	2			HOR02

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 18.98		S	8.1	TT	15.6	L	5	29	6	1/			BOU
2002 06 18.98	x	S	8.2:	TJ	5.0	B		10	3	1			MAR12
2002 06 18.99		S	8.2	AA	6.0	B		20	6	2/			CSU
2002 06 19.96	x	M	8.8:	TJ	8.0	L	7	35	3	2			KOS01
2002 06 19.96	x	S	8.9:	TT	6.0	B		20	& 4	1			SCI
2002 06 20.02		S	7.9	TT	10.0	B		25	6.4	3			HAS02
2002 06 20.96	x	S	9.1:	TT	6.7	B		20	& 3	1			SCI
2002 06 22.12		S	7.9	TJ	8.0	B		11	10	2			GON05
2002 06 23.00		S	8.8:	TK	10	B		14	2.5	2			SHA02
2002 06 23.98		S	9.1:	TK	33	L	5	75	2.0	2			SHA02
2002 06 24.89		M	8.4	TT	10	B	4	25	5	3			LEH
2002 06 25.88		M	8.5	TT	20	L	4	42	4	3/			LEH
2002 06 25.91		S	8.3	TT	8.0	B		10	10	1/			HOR02
2002 06 26.88		S	8.4	TT	8.0	B		10	10	2			HOR02
2002 06 26.89	x	B	8.5:	TJ	25	L	6	54	2	1			SWI
2002 06 26.92		M	8.5	TT	10	B	4	25	5	3			LEH
2002 06 28.88		M	8.7	TT	10	B	4	25	5	3			LEH
2002 06 28.94		S	8.4	TJ	8.0	B		11	10	2			GON05
2002 06 28.96		S	8.4	TK	8.0	B		20	7	1			SHA02
2002 06 28.96		S	8.6	TK	20	R	14	40	5.9	1			SHA02
2002 06 28.98	x	S	8.8	TT	30	L	4	47	& 6	1			GRA09
2002 06 29.87		S	8.5	TT	8.0	B		10	9	1/			HOR02
2002 06 29.88		M	8.8	TT	10	B	4	25	5	3			LEH
2002 06 30.90		S	8.5	TT	8.0	B		10	8	1/			HOR02
2002 07 01.88		S	8.6	TT	8.0	B		10	8	1/			HOR02
2002 07 01.94	x	S	9.5:	TT	10	M	10	40	& 1.5	2			SCI
2002 07 02.03		S	9.0	TT	8.0	B		11	11	2			WAR02
2002 07 02.98		S	8.4	TJ	8.0	B		11	10	2			GON05
2002 07 03.91	x	I[	10.0	TJ	20	L	6	36	! 1.5	1			KIS03
2002 07 04.87		S	8.9	TT	8.0	B		10	7.5	1/			HOR02
2002 07 04.88		M	8.5	TT	5.0	B		7	8	1/			ZN0
2002 07 04.93		B	9.0	TT	8.0	B		11	10	2			WAR02
2002 07 05.84	x	S	12.0	TJ	35	L	6	105	& 1	d1			CHR
2002 07 05.88		M	9.3	TT	10	B	4	25	5	3			LEH
2002 07 05.89		S	9.0	TT	10	B		25	8	1/			HOR02
2002 07 05.90	x	B	8.9:	TJ	6.5	R	6	28	& 3	1			SWI
2002 07 05.92	x	S	10.5:	TT	20	L	6	37	& 2	1			KIS03
2002 07 05.93	x	S	8.9	TT	30	L	4	47	& 6.5	1/			GRA09
2002 07 06.48	x	S	9.5:	TJ	32.0	L	5	58	& 3	1			NAG08
2002 07 06.51	x	S	9.8	TK	10.0	B		20	4	3/			YOS02
2002 07 06.54	x	B	9.2:	TJ	12.0	B		20	4	2/			MIY01
2002 07 06.97		S	8.6	TJ	8.0	B		11	9	1			GON05
2002 07 06.98		M	8.7	NP	7.0	B		10	10	4			MAR02
2002 07 06.98		S	8.9	NP	7.0	B		10	8	2			SAN04
2002 07 06.99		S	9.3	TJ	20.3	T	10	50	5	2			GON05
2002 07 07.87		S	9.1	TT	8.0	B		10	8	1/			HOR02
2002 07 08.87		S	9.2	TT	8.0	B		10	7	2			HOR02
2002 07 08.88		M	9.5	TT	10	B	4	25	4.5	3			LEH
2002 07 09.08		S	9.0	TJ	8.0	B		11	5	1			SOU01
2002 07 09.87		S	9.3	TT	8.0	B		10	8	1/			HOR02
2002 07 09.88		M	9.6	TT	10	B	4	25	4.5	3			LEH
2002 07 09.91		S	9.5	TT	25	L	5	60	7	1			SEG
2002 07 09.95	x	S	11.5:	TT	20	L	6	56	& 1.5	1			KIS03
2002 07 10.94		S	9.5	TJ	30.5	T	10	75	4.0	1			KAM01
2002 07 10.96		S	10.0:	TK	25.4	J	6	47	& 4	0/			BOU
2002 07 11.00		S	8.8	NP	10	R		25	12	2			MAR02
2002 07 11.02	x&	B	7.7	TJ	6.0	B		12	2	s			JAR01
2002 07 11.05		S	8.6	TJ	8.0	B		11	8	1			GON05
2002 07 11.52	x	S	9.8	TJ	32.0	L	5	58	6	2			NAG08
2002 07 11.62		S[	9.3	TJ	25.4	T	6	62	! 2.0				YOS04
2002 07 11.88		M	9.6	TT	10	B	4	25	5	3			LEH
2002 07 11.95		S	10.0	TK	25.4	J	6	47	4.3	0/			BOU
2002 07 11.96		S	10.5:	TJ	30.5	T	10	116	> 3	0			COM
2002 07 12.16	%	S	8.7	HV	8.0	B		20	& 8	0/			GRE
2002 07 12.57	x	S	9.5	TJ	45.7	L	4	68	3.2	2			MUR02

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 07 12.87	x	S	11.5	TT	20	L	5	50	2	2			POW01
2002 07 13.93		M	8.7	NP	10	R		25	13	3/			MAR02
2002 07 14.37		S	9.7	TK	37	L	3	50	7	2	10	m 320	LIN04
2002 07 14.88		M	9.8	TT	10	B	4	25	5	3			LEH
2002 07 15.01		S	8.8	TJ	8.0	B		11	7	1			GON05
2002 07 15.02		S	9.5	TJ	20.3	T	10	50	6	2			GON05
2002 07 15.95		S	10.2	TK	31.0	J	6	58	4	0/			BOU
2002 07 15.96		S	10.3	TK	31.0	J	6	58	2.7	0			DIJ
2002 07 26.26		S	10.6	TK	37	L	3	60	3	1	6	m 100	LIN04
2002 07 28.83		M	10.1	TT	42	L	5	81	3	3			LEH
2002 07 29.83		M	10.1	TT	42	L	5	81	3	3			LEH
2002 07 31.35		S	11.0	TK	37	L	3	172	2.5	1			LIN04

Comet C/1999 H1 (Lee)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1999 09 17.87		B	7.0	VF	5.0	B		7	8.5	3			DUB01

Comet C/1999 U4 (Catalina-Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 17.01		B	14.4	HS	42	L	5	162	0.7	4			LEH

Comet C/2000 SV_74 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 09.86		S	13.3	HS	36	L	6	80	1.2	3			BAR06
2002 05 02.99		S	12.8	AC	41	L	5	121	1.2	2/			RES
2002 05 02.99	x	S	13.3	HS	20	L	5	110	0.7	2			POW01
2002 05 02.99	x	S	13.4	TT	20	L	5	110	0.7	1/			SIE01
2002 05 03.96		S	12.5	HS	35	L	5	158	1.5	2/			HOR02
2002 05 05.99	x	S	12.9	HS	20	L	5	110	0.8	3			POW01
2002 05 06.99		S	12.7	HS	35	L	5	158	1.5	2/			HOR02
2002 05 07.95		S	13.1	AC	41	L	5	121	1.2	2/			RES
2002 05 08.04		S	12.8	HS	35	L	5	158	1.6	2/			HOR02
2002 05 09.98		S	13.2	AC	41	L	5	121	1.2	2/			RES
2002 05 10.00		S	12.9	HS	35	L	5	158	1.4	2/			HOR02
2002 05 11.98		S	13.2	AC	41	L	5	121	1.2	2			RES
2002 05 11.99	x	S	12.9	HS	20	L	5	110	1.2	3			POW01
2002 05 13.05		M	12.6	HS	11.4	L	9	75	1	4			CER01
2002 05 13.93		M	12.7	HS	11.4	L	9	75	1	4			CER01
2002 05 14.02		S	13.3	AC	41	L	5	121	1.0	2			RES
2002 05 16.02		S	13.2	AC	41	L	5	121	1.4	2/			RES
2002 05 16.98		M	13.2	HS	42	L	5	81	1.1	3			LEH
2002 05 17.04		S	13.2	AC	41	L	5	121	1.3	2/			RES
2002 05 18.04		S	13.1	AC	41	L	5	121	1.2	2/			RES
2002 06 01.01		S	13.3	GA	31.0	J	6	143	0.9	2			BOU
2002 06 01.01		S	13.5	GA	31.0	J	6	143	0.6	0			DIJ
2002 06 17.92		M	12.8	HS	42	L	5	81	1.2	3/			LEH
2002 06 18.94		M	12.8	HS	42	L	5	81	1.3	3/			LEH
2002 06 28.93		M	12.9	HS	42	L	5	81	1.5	3/			LEH
2002 06 29.89		S	13.5	HS	35	L	5	158	0.9	2/			HOR02
2002 06 29.98		M	12.9	HS	42	L	5	81	1.4	3			LEH
2002 07 04.89		S	13.4	HS	35	L	5	158	1.2	3			HOR02
2002 07 06.97		S	13.7	NP	45	L	5	91	2	2			MAR02
2002 07 06.98		S	14.2	NP	45	L	5	91	1	2			SAN04
2002 07 07.89		S	13.4	HS	35	L	5	237	1.1	2/			HOR02
2002 07 08.90		S	13.5	HS	35	L	5	158	1.2	2/			HOR02
2002 07 08.97		M	12.7	HS	42	L	5	81	1.5	3/			LEH
2002 07 09.97		M	12.7	HS	42	L	5	81	1.4	3			LEH

Comet C/2000 WM_1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 10.81	x	S	9.6	S	24.0	L	5	100	&10	3/			KRZ

Comet C/2000 WM_1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 10.90	x&	S	8.8	TT	20.0	L	4	53	7.0	s2			CHO01
2001 11 12.99	x	S	7.9	TJ	15	L	6	45	7	5/	&0.23	270	KEZ
2001 11 13.88	x&	S	7.9	TT	20.0	L	4	53	8.0	s2			CHO01
2001 11 16.77	x&	S	7.9	TT	11.0	L	4	32	13.0	s3			CHO01
2001 11 16.78	x	S	7.1:	TJ	15	L	6	45	7.5	6	&0.22	225	KEZ
2001 11 17.88	x	B	7.5	TJ	15	L	6	45	7	5			KEZ
2001 11 19.24	x	S	7.8	S	24.0	L	5	100	& 8	3			KRZ
2001 11 19.85	x&	S	6.9	TT	20.0	L	4	53	20.0	s5			CHO01
2001 11 25.72		S	6.0	TI	5.0	B		7	17	6			KYS
2001 12 03.69	x&	S	5.1	TT	6.0	R	4	10	18.0	s3			CHO01
2001 12 06.83		B	5.9:	TJ	5.0	B		7		4			CHE03
2001 12 07.73	x$	S	5.2	TT	6.0	R	4	10	22.0	s2			CHO01
2001 12 08.69	x$	S	5.4	TT	6.0	R	4	10	18.0	s2			CHO01
2001 12 14.80		S	6.5:	AA	5.0	B		10	20	2			SAJ
2001 12 27.02		S	5.8	YG	5.0	B		7	10	5			SOU01
2002 01 30.11		B	2.3	AA	5.0	B		7	1	9			BEG01
2002 01 31.11		B	2.4	AA	3.5	B		7	8	8	1.0	200	PRI04
2002 01 31.11		B	2.6	AA	0.0	E		1					PRI04
2002 01 31.11		B	2.6	AA	5.0	B		7	6.5	8	1.1	198	BEG01
2002 01 31.31		S	3.2	TT	0.0	E		1					DES01
2002 02 01.11		B	2.6	AA	5.0	B		7	6	8	1.8	200	BEG01
2002 02 02.10		S	3.0	S	20.0	C	10	120		7	3.0		JON07
2002 02 03.10		B	3.8	S	5.0	B		10		8			C0002
2002 02 03.11		B	3.0	AA	3.5	B		7	6	8	50 m	220	PRI04
2002 02 03.11		B	3.8	AA	5.0	B		7	4	8	2.1	206	BEG01
2002 02 03.30		S	3.4	TT	0.0	E		1					DES01
2002 02 04.11		B	3.9	S	5.0	B		10		7/	1.5		C0002
2002 02 04.11		B	4.3	AA	5.0	B		7	4	7	1.8	214	BEG01
2002 02 04.30		S	3.5	TT	0.0	E		1					DES01
2002 02 05.30		S	3.6	TT	0.0	E		1					DES01
2002 02 06.10		B	4.5	AA	0.0	E		1		9			BEG01
2002 02 06.11		B	4.5	AA	5.0	B		7	5.3	8	2.0	216	BEG01
2002 02 06.30		S	3.8	TT	0.0	E		1					DES01
2002 02 07.11		B	4.6	AA	3.5	B		7	4.6	7	2.0	245	PRI04
2002 02 07.11		B	4.7	AA	5.0	B		7	6.4	6	1.6	219	BEG01
2002 02 08.08		S	6.0	S	5.0	B		10		7	1.5	216	JON07
2002 02 09.08		S	6.1	S	5.0	B		10		7	1.0	215	JON07
2002 02 09.29		S	4.3	TT	0.0	E		1					DES01
2002 02 10.09		B	4.5	S	5.0	B		10	3	8	2.2	234	C0002
2002 02 10.10		B	4.6	AA	5.0	B		10	5	6	2.0	220	PRI04
2002 02 10.30		S	4.5	TT	0.0	E		1					DES01
2002 02 12.10		B	4.6	AA	5.0	B		10	5	6	2.0	220	PRI04
2002 02 12.10		S	5.2	S	5.0	B		10	3	8	1.5	226	C0002
2002 02 12.11	!	M	5.0:	AA	5.0	B		7	6.5	7	1.9	224	BEG01
2002 02 13.10		B	5.0:	AA	5.0	B		7	6.5	7	3.1	224	BEG01
2002 02 13.11		B	4.6	AA	5.0	B		10	3	6	1.5	230	PRI04
2002 02 14.11		M	4.9	AA	5.0	B		7	6.5	6	1.3	225	BEG01
2002 02 15.10		S	6.0	S	25.0	C	10	77	8	7	40 m		STR03
2002 02 16.11		B	5.3	AA	5.0	B		7	8	7	1.3	224	BEG01
2002 02 17.10		B	5.8	AA	5.0	B		7	8	5	1.0	227	BEG01
2002 02 17.10		B	5.9	AA	5.0	B		10		6	1.0		PRI04
2002 02 20.11		B	5.7	AA	5.0	B		10	4	5	35 m	230	PRI04
2002 02 20.11		B	5.8	AA	5.0	B		7	7.3	6	2.6	227	BEG01
2002 02 21.11		B	5.7	AA	5.0	B		10	4	6	1.2	230	PRI04
2002 02 22.11		B	6.0	AA	5.0	B		10	6	6	1.2	230	PRI04
2002 02 23.10		B	6.0	AA	5.0	B		7	4.4	5	1.5	227	BEG01
2002 02 23.11		B	6.2	AA	5.0	B		10	4	5	1.2	225	PRI04
2002 02 24.12		B	6.5	AA	5.0	B		10	4	4	70 m	225	PRI04
2002 02 25.10		B	6.8	AA	5.0	B		10	5	5	70 m	230	PRI04
2002 02 25.11		B	6.1	AA	5.0	B		7	6	6	1.4	231	BEG01
2002 02 26.11		B	6.1	AA	5.0	B		7	4.7	6	1.4	232	BEG01
2002 02 26.11		S	6.5	AA	5.0	B		10	5	5	1.0	235	PRI04
2002 02 27.10		B	6.4	AA	5.0	B		7	5	5	20 m	241	BEG01
2002 02 28.09		B	6.5	AA	5.0	B		7	5.3	6	30 m	237	BEG01
2002 03 01.11		B	6.5	AA	5.0	B		10	4	5	50 m	245	PRI04

Comet C/2000 WM_1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 02.10		B	6.3	AA	5.0	B		7	8.2	5	50 m	233	BEG01
2002 03 03.11		B	6.7	AA	5.0	B		7	5	5	45 m	233	BEG01
2002 03 03.11		B	6.9	AA	5.0	B		10		4	40 m	245	PRI04
2002 03 04.10		S	6.6	AA	5.0	B		7	5.1	4	42 m	234	BEG01
2002 03 06.10		S	7.0	AA	5.0	B		7	5.4	4	35 m	235	BEG01
2002 03 08.15	x&	B	7.6:	TJ	6.0	B	6	10	&15	2			TOB
2002 03 09.14	x	S	7.6	TJ	35	L	6	105	& 4	d4			CHR
2002 03 09.15	x	B	7.5	TJ	25	L	6	54	& 3	3			SWI
2002 03 09.15		S	7.9	AA	5.0	B		7	3	1			KOS
2002 03 09.16	x&	S	7.4	TT	33	L	6	100	& 3	4			FIL04
2002 03 11.10		B	7.4	AA	5.0	B		7	5.6	4	1.3	233	BEG01
2002 03 11.14	x	S	7.6	TJ	35	L	6	105	& 4	d4	& 8 m		CHR
2002 03 11.14	xw	B	6.8:	TT	33	L	6	100	& 9	4	0.3	280	FIL04
2002 03 12.09		B	7.7	AA	5.0	B		7	4.2	3	25 m	236	BEG01
2002 03 12.12	x	S	7.8	TJ	35	L	6	105	& 4	d4	& 8 m		CHR
2002 03 12.13	x&	B	7.9	TJ	6.0	B	6	10	& 8	2	&0.2	250	TOB
2002 03 12.14	x	B	7.6	TJ	25	L	6	54	& 3	4	0.4		SWI
2002 03 13.10		B	7.8	AA	5.0	B		7	3.5	4	40 m	242	BEG01
2002 03 13.11		M	7.4	HS	8.0	B		12	7	3			BAR06
2002 03 13.11		M	7.5	HS	20	L	5	60	6	3			BAR06
2002 03 14.11		M	7.4	HS	20	L	5	60	6	3			BAR06
2002 03 14.16	xw	B	9.1	TT	33	L	6	100	& 3	3/			FIL04
2002 03 15.11		B	7.9:	TJ	15.0	R	5	25	5	4	1.0		CHE03
2002 03 16.09	x	B	8.6	TT	20	L	5	50	3.5	d4	0.1	230	SRE
2002 03 16.09	x	B	8.8	TT	20	L	5	50	3.6	d5	0.1	233	BAR10
2002 03 16.10		S	8.2	AA	5.0	B		7	3.6	3	30 m	242	BEG01
2002 03 16.11		B	8.2	TJ	15.0	R	5	25	5	4	0.8		CHE03
2002 03 16.12	x	B	7.8	TT	20	L	5	50	4.8	4	0.16	236	POW01
2002 03 16.12	x&	B	7.7:	TJ	6.0	B	6	10	& 9	1/			TOB
2002 03 16.13	x	B	7.4	TT	6.0	B		30	4.0	4			POW01
2002 03 16.13		M	7.6	HS	20	L	5	60	7	3			BAR06
2002 03 17.11		S	8.2	S	25.0	C	10	77	4.0	5/	25 m	244	STR03
2002 03 17.11		S	8.4	S	20.0	C	10	77	3.5	5	22 m	244	C0002
2002 03 17.13	x	B	8.1	TT	20	L	5	50	4.2	4	0.15	233	POW01
2002 03 17.13		M	8.1	HS	20	L	5	60	6	3			BAR06
2002 03 18.11	x	B	8.3:	TT	15	L	6	30	& 3.9	5	&0.1	240	MAK02
2002 03 18.11		M	7.7	HS	20	L	5	60	7	3			BAR06
2002 03 18.16	x	B	8.5	TJ	25	L	6	54	& 3	3			SWI
2002 03 19.12	x&	B	9.6	TJ	6.0	B	6	10	& 6	2/			TOB
2002 03 19.18	x	S	8.4	TJ	35	L	6	105	3	d3			CHR
2002 03 24.13		S	10.0	AC	6.3	R	13	52	3	1			KOS
2002 03 26.07		S	8.8	S	40.0	L	4	72	3.5	3	15 m	242	C0002
2002 03 26.09	x	B	8.8:	TT	20	L	5	50	3.6	4			POW01
2002 03 26.13	x	B	8.8:	TT	20	L	5	50	& 3.6	d4			SIE01
2002 03 30.11	x	S	10.1	TT	33	L	6	100	& 2	1/			FIL04
2002 03 30.12	x	S	9.5:	TJ	18	L	7	58	& 2.0	3			WLO
2002 04 03.10	x	S	10.0	TT	33	L	6	100	& 1.5	1/			FIL04
2002 04 03.10	x	S	10.1:	TT	15	L	6	30	& 2	3			MAK02
2002 04 04.02	x	S	9.4:	TJ	11	L	7	54	& 3.6	d3/			SAD
2002 04 04.04	x	S	10.3	TT	20	L	5	50	2.7	3	0.09	270	POW01
2002 04 04.08	x	S	10.2	TT	33	L	6	72	& 1.5	1/			FIL04
2002 04 05.08	x	S	9.9	TJ	11	L	7	54	& 3.8	3/			SAD
2002 04 07.10		S	9.2	AC	40.0	L	4	72	1.7	3			C0002
2002 04 09.10		S	9.1	TT	8.0	B		10	6	2/			HOR02
2002 04 09.11		B	10.2	TI	11.4	L	8	36	3		0.10	260	NED
2002 04 10.08	x	S	10.1	TJ	18	L	7	75	& 2	3			WLO
2002 04 11.71		B	9.5	TJ	34.0	L	4	44	3	3			CHE03
2002 04 12.02	x	S	10.7	TT	15	L	6	45	2.5	3	0.05	259	SIE01
2002 04 12.08	x	S	9.3	TJ	35	L	6	105	& 3	d2			CHR
2002 04 12.14	x&	S	9.7	TT	20.0	L	4	32	3.0	d1			CHO01
2002 04 13.04		S	9.6:	HS	36	L	6	80	3	3			BAR06
2002 04 15.08	x	S	10.3	TJ	35	L	6	105	& 2.5	d2			CHR
2002 04 16.09		M	9.1	TT	13	L		69	2.5	3/			HOR02
2002 04 20.11		S	10.3	TK	25.6	L	5	42	2.0	3			BIV
2002 04 21.05	x	S	10.5	TJ	35	L	6	105	& 1.5	d1			CHR

Comet C/2000 WM_1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 30.95	x	S	10.9	TT	20	L	5	50	1.7	2			POW01
2002 04 30.96		M	10.2	TI	11.4	L	9	36	4	3			CER01
2002 04 30.99		S	11.3	TK	30	R	20	105	1.1	2			SHA02
2002 05 01.58	x	S	10.5	TJ	32.0	L	5	58	1.6	5			NAG08
2002 05 01.82	x	S	11.7	TJ	35	L	6	105	& 1	d1			CHR
2002 05 01.93		S	10.3	HS	36	L	6	80	3	2/	0.07	250	BAR06
2002 05 01.93		S	11.7	HS	30	R	20	185	0.8	3			SHA02
2002 05 01.95	x	S	11.4:	TJ	15	L	6	150	1.0	1/			KEZ
2002 05 02.84	x	S	11.7	TJ	35	L	6	105	& 1	d1			CHR
2002 05 02.89		S	10.7	AC	41	L	5	121	1.5	2/			RES
2002 05 02.92	x	S	10.5	TT	16.5	L	8	50	& 2	1			FIL04
2002 05 02.93	x	S	10.5	TT	20	L	5	50	1.7	2			POW01
2002 05 02.94	x	S	11.0	TT	15	L	6	45	1.7	1/			SIE01
2002 05 02.95		S	10.8	TK	25.4	J	6	72	2.2	2			BOU
2002 05 03.88		S	10.8	AC	41	L	5	121	1.5	2/			RES
2002 05 03.98		S	11.0	TK	20.3	T	10	100	1.5	3			GRA04
2002 05 04.84	x	S	11.8	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 04.88		M	11.3	AS	30	L	5	60	1.5	2			NEV
2002 05 04.94		M	10.8	GA	15	L	5	50	2	3			SHU
2002 05 04.94		S	12.1	TK	30	R	20	185	1.1	3			SHA02
2002 05 05.00		S	11.1	TK	20.3	T	10	100	1.5	3			GRA04
2002 05 05.06	x	S	11.3	TJ	15	L	6	150	1.0	2			KEZ
2002 05 05.88	x	S	11.8	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 05.93		M	10.8	GA	15	L	5	75	2	3			SHU
2002 05 05.93	x	S	10.6	TT	20	L	5	50	2.3	2			POW01
2002 05 06.90		S	10.7	AC	41	L	5	72	1.5	2/			RES
2002 05 06.94	x	S	9.8	TT	16.5	L	7	50	& 3	1			FIL04
2002 05 06.96		S	10.5	TK	35	L	5	68	3.2	2			HOR02
2002 05 07.84	x	S	11.6	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 07.93		S	10.8	AC	41	L	5	72	1.6	2/			RES
2002 05 07.94		M	11.3	TI	20	L	4	42	2	3			LEH
2002 05 07.97	x	S	10.3	TT	16.5	L	8	50	& 3	1/			FIL04
2002 05 08.00		M	10.5	TK	35	L	5	68	3.4	2/			HOR02
2002 05 08.06		M	10.8	TI	11.4	L	9	36	3	4			CER01
2002 05 08.07		B	11.2	TI	11.4	L	9	36	3				NED
2002 05 08.63	x	S	11.1	TJ	32.0	L	5	58	1.8	5			NAG08
2002 05 08.88	x	S	11.6	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 08.93	x	S	10.5	TT	16.5	L	8	50	& 3	1/			FIL04
2002 05 08.95		S	10.1	HS	20	L	5	70	3	4			BAR06
2002 05 09.89		M	11.0	TT	20	R	17	87	1.8	3			LEH
2002 05 09.89		S	11.1	AC	41	L	5	72	1.3	2/			RES
2002 05 09.93		S	10.4	HS	36	L	6	80	3	2			BAR06
2002 05 09.95		S	10.6	TK	35	L	5	68	3.5	2/			HOR02
2002 05 10.06		M	11.0	TI	11.4	L	9	36	3	2			CER01
2002 05 10.77	x	S	11.0	TK	25.4	L	4	46	2.0	3			YOS02
2002 05 11.89		S	11.3	AC	41	L	5	72	1.2	2/			RES
2002 05 11.90	x	S	10.9	TT	20	L	5	50	2.5	2/			POW01
2002 05 11.91		M	11.4	TI	20	R	17	87	1.5	3			LEH
2002 05 11.91	x	S	11.5	TT	20	L	5	50	2.7	2/			SIE01
2002 05 12.10		S	11.9	TK	20.3	T	10	67	2.0	4			BIV
2002 05 12.72	x	S	11.6	TK	25.4	L	4	46	1.5	3			YOS02
2002 05 12.93		S	11.3	TK	25.4	J	6	72	1.8	2			DIJ
2002 05 12.93		S	11.3	TK	25.4	J	6	72	2.2	3			BOU
2002 05 12.93		S	11.7	TK	20.3	T	10	67	2.0	5			BIV
2002 05 12.95		M	11.0:	CD	41	L	4	88	1	3/			SHU
2002 05 13.02		M	11.2	TI	11.4	L	9	36	3	2			CER01
2002 05 13.86		M	11.6	CD	41	L	4	88	1	4			SHU
2002 05 13.90		M	11.4	TI	20	L	4	42	2	3			LEH
2002 05 13.93		M	11.3	TI	11.4	L	9	36	2.5	3			CER01
2002 05 13.94		S	11.4	TI	11.4	L	9	36	2				NED
2002 05 14.01		S	11.5	AC	41	L	5	121	1.4	2/			RES
2002 05 14.89		S	11.4	AC	41	L	5	72	1.7	2/			RES
2002 05 15.84	x	S	11.6	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 15.90		M	11.7	TI	42	L	5	81	1.8	3			LEH
2002 05 15.93		M	10.8	TK	35	L	5	68	2.5	2/			HOR02

Comet C/2000 WM_1 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 15.99		S	11.5	AC	41	L	5	121	1.5	2/			RES
2002 05 16.89		S	11.6	AC	41	L	5	121	1.8	2/			RES
2002 05 16.93		M	11.7	HS	42	L	5	81	1.8	3/			LEH
2002 05 16.99		M	10.9	TK	35	L	5	68	2.6	3			HOR02
2002 05 16.99		S	11.8	TK	20.3	L	6	48	1.0	4			BIV
2002 05 17.90		M	11.0	TK	35	L	5	68	2.6	2/			HOR02
2002 05 17.92		M	11.7	HS	20	R	17	87	1.5	3/			LEH
2002 05 17.96		S	11.8	AC	41	L	5	72	1.5	2			RES
2002 05 18.89		M	11.8	TI	20	R	17	87	1.5	3/			LEH
2002 05 18.94	x	S	11.6	TJ	25	L	6	108	& 1	1			SWI
2002 05 19.06		S	11.7	TK	25.6	L	5	42	1.5	4			BIV
2002 05 19.75	x	S	12.4	HS	25.4	L	4	113	1.2	4			YOS02
2002 05 20.00		S	11.9	HS	36	L	6	80	3	2	0.06		BAR06
2002 05 20.72	x	S	12.7	HS	32.0	L	5	91	1.1	4			NAG08
2002 05 31.84	x	S	11.9	TJ	35	L	6	105	& 0.5	d1			CHR
2002 05 31.95		S	12.0	TK	31.0	J	6	72	1.8	2			BOU
2002 05 31.96		S	11.6	TK	31.0	J	6	72	2	1/			DIJ
2002 06 01.89	x	S	12.4	TJ	25	L	6	108	0.5				SWI
2002 06 01.90		S	12.9	HS	44.0	L	5	156	0.5	4			HAS02
2002 06 01.91		S	12.4	AC	41	L	5	121	1.4	2			RES
2002 06 04.91		S	12.5	AC	41	L	5	121	1.5	2			RES
2002 06 05.84	x	S	11.9	TJ	35	L	6	105	& 0.5	d1			CHR
2002 06 06.99		S	12.7	AC	41	L	5	121	1.4	2			RES
2002 06 12.88	x	S	12.2	TJ	35	L	6	150	& 0.5	d1			CHR
2002 06 12.99		S	12.3	HS	35	L	5	158	2.5	2			HOR02
2002 06 14.88		S	12.7	HS	35	L	5	158	2.0	2/			HOR02
2002 06 16.02		M	13.6	NP	45	L	5	100	1	3			MAR02
2002 06 17.89		M	12.7	HS	42	L	5	81	1.5	3			LEH
2002 06 17.98		S	12.9	AC	41	L	5	121	1.0	2			RES
2002 06 18.91		S	13.0	HS	35	L	5	158	1.4	2			HOR02
2002 06 18.92		M	12.7	HS	42	L	5	81	1.4	3			LEH
2002 06 26.88		B	13.3	HS	42	L	5	81	1	4			LEH
2002 06 28.90		B	13.7	HS	42	L	5	81	1	4			LEH
2002 06 29.90		B	13.7	HS	42	L	5	81	1.1	4/			LEH
2002 06 29.94		S	13.7	HS	35	L	5	158	1.1	2/			HOR02
2002 07 04.95		S	14.1	HS	35	L	5	158	0.9	2/			HOR02
2002 07 07.00		S	14.1	NP	45	L	5	91	1	2			MAR02
2002 07 07.01		M	14.2	NP	45	L	5	91	1	4			SAN04
2002 07 07.93		S	14.1	HS	35	L	5	237	0.7	2/			HOR02
2002 07 08.89		B	13.8	HS	42	L	5	162	1	4			LEH
2002 07 08.93		S	14.0	HS	35	L	5	237	0.8	2/			HOR02
2002 07 09.89		B	13.8	HS	42	L	5	162	1	4			LEH
2002 07 14.90		B	13.7	HS	42	L	5	162	1	4/			LEH

Comet C/2001 A2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 07 04.00	x	B	6.6	TK	5	R	7	11	7	3			KIT02
2001 07 04.94		B	5.3	VF	3.5	B		8	10	5			MOR04
2001 07 05.93		B	5.3	VF	3.5	B		8	10	5			MOR04
2001 07 05.98		B	6.9	TJ	4.0	B		12					GAR03
2001 07 06.93		B	5.3	VF	3.5	B		8	8	5			MOR04
2001 07 06.95		B	7.1	TJ	4.0	B		12					GAR03
2001 07 07.97		B	7.2	TJ	4.0	B		12					GAR03
2001 07 08.94		B	5.2	VF	3.5	B		8	10	5			MOR04
2001 07 09.83		B	5.2	VF	3.5	B		8	10	5			MOR04
2001 07 11.86		B	5.1	VF	3.5	B		8	13	5			MOR04
2001 07 12.87		B	5.0	VF	3.5	B		8	13	5			MOR04
2001 07 12.96		B	5.6	TJ	4.0	B		12	3	3			GAR03
2001 07 13.23		B	5.0	VF	3.5	B		8	13	5			MOR04
2001 07 13.25		B	5.0	VF	3.5	B		8	15	5			MOR08
2001 07 13.91	x	M	5.6	TK	5	R	7	11	5	d4			KIT02
2001 07 14.84		B	5.3	VF	3.5	B		8	14	5			MOR04
2001 07 14.88		B	5.4	VF	3.5	B		8	15	5			MOR08
2001 07 14.94		B	6.5	TJ	4.0	B		12	3	3			GAR03

Comet C/2001 A2 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 07 14.95	x	M	6.3	TK	5	R	7	11	5	D5/			KIT02
2001 07 15.84		B	5.5	VF	3.5	B		8	15	5			MOR04
2001 07 15.88		B	5.5	VF	3.5	B		8	17	5			MOR08
2001 07 15.91		B	5.5	VF	3.5	B		8	20	5			MOR04
2001 07 15.93	x	M	6.2	TK	5	R	7	11	6	d3			KIT02
2001 07 15.96		B	5.5	VF	3.5	B		8	20	5			MOR08
2001 07 16.83		B	5.7	VF	5.0	B		8	15	5			MOR04
2001 07 16.87		B	5.6	VF	5.0	B		8	16	5			MOR08
2001 07 16.92		B	6.7	TJ	4.0	B		12		5			GAR03
2001 07 16.93	x	M	6.5	TK	5	R	7	11	5	3			KIT02
2001 07 16.95		B	5.6	VF	5.0	B		8	18	5			MOR04
2001 07 17.91		B	5.7	VF	5.0	B		8	13	5	2.0	220	MOR04
2001 07 17.94	x	M	6.9	TK	5	R	7	11	6	2/			KIT02
2001 07 17.95		B	5.7	VF	3.5	B		8	15	5	2.5	220	MOR08
2001 07 18.91		B	6.0	VF	5.0	B		8	15	5	1.5		MOR08
2001 07 18.95		B	6.0	VF	5.0	B		8	13	5	1.5	230	MOR04
2001 07 19.79		B	6.1	VF	5.0	B		8	10	5	1	225	MOR08
2001 07 19.95		B	5.9	VF	5.0	B		8	15	5	2.5		MOR04
2001 07 20.91		B	6.0	VF	5.0	B		8	14	5	1		MOR04
2001 07 20.91	x	M	6.7	TK	5	R	7	11	6	2			KIT02
2001 07 21.91		B	6.0	VF	5.0	B		8	13	5	2.5	220	MOR08
2001 07 21.95		B	6.0	VF	5.0	B		8	13	5	3	220	MOR04
2001 07 22.79		B	6.1	VF	5.0	B		8	15	5	1		MOR08
2001 07 22.95		B	6.0	VF	5.0	B		8	17	5	2	220	MOR04
2001 07 23.91		B	6.2	VF	5.0	B		8	14	5	1.5	217	MOR08
2001 07 23.95		B	6.2	VF	5.0	B		8	14	5	2	218	MOR04
2001 07 24.83		B	6.3	VF	5.0	B		8	12	5	1	220	MOR04
2001 07 24.90	x	M	7.3	TK	5	R	7	11	6	2			KIT02
2001 07 24.91		B	6.2	VF	5.0	B		8	13	5	1.5	225	MOR08
2001 07 25.01		B	6.2	VF	5.0	B		8	13	5	1.5	225	MOR04
2001 07 25.95		B	6.2	VF	5.0	B		8	13	5	3	230	MOR04
2001 07 27.91		B	6.7	VF	5.0	B		8	8	5			MOR04
2001 07 27.95		B	6.8	VF	5.0	B		8	8	5			MOR08
2001 07 28.83		B	7.0	VF	5.0	B		8	8	5			MOR04
2001 07 29.95		B	7.0	VF	5.0	B		8	10	5	0.5		MOR04
2001 07 30.01		B	7.0	VF	5.0	B		8	8	5	0.5	210	MOR08
2001 07 30.95		B	6.9	VF	5.0	B		8	8	5	0.5		MOR04
2001 07 30.99		B	7.0	VF	5.0	B		8	8	5	0.5	200	MOR08
2001 08 02.84		B	7.2	VF	5.0	B		8	7	5			MOR04
2001 08 10.79		B	8.0	VF	8.0	B		28	7	4			MOR04
2001 08 11.78		B	8.2	VF	8.0	B		28	7	4			MOR04
2001 08 11.83		B	8.3	VF	8.0	B		28	7	4			MOR08
2001 08 12.79		B	8.5	VF	8.0	B		28	7	4			MOR04
2001 08 12.83		B	8.5	VF	8.0	B		28	7	4			MOR08
2001 08 13.83		B	8.6	VF	8.0	B		28	7	4			MOR04
2001 08 13.87		B	8.6	VF	8.0	B		28	7	4			MOR08
2001 08 15.83		B	8.6	VF	8.0	B		28	8	3	0.25	165	MOR04
2001 08 15.91		B	8.6	VF	8.0	B		28	8	3	0.25	165	MOR08
2001 08 17.83		B	8.7	VF	8.0	B		28	7	3	0.25	180	MOR04
2001 08 17.87		B	8.7	VF	8.0	B		28	7	3	0.25	180	MOR04

Comet C/2001 HT_50 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 03.85		S	13.2	AC	41	L	5	121	0.8	4			RES

Comet C/2001 K5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 02.87		S	13.1	AC	41	L	5	121	0.9	3			RES
2002 05 03.89		S	13.1	AC	41	L	5	121	0.9	3/			RES
2002 05 07.92		S	13.0	AC	41	L	5	121	1.0	3			RES
2002 05 09.98		S	13.0	AC	41	L	5	121	1.0	3			RES
2002 05 11.99		S	12.9	AC	41	L	5	121	1.0	3			RES
2002 05 14.03		S	12.8	AC	41	L	5	121	0.9	3			RES

Comet C/2001 K5 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 14.90		S	12.9	AC	41	L	5	72	0.9	3			RES
2002 05 15.97		S	12.9	AC	41	L	5	121	0.9	3			RES
2002 05 16.89		S	12.9	AC	41	L	5	121	0.8	3/			RES
2002 05 17.05		B	13.8	HS	42	L	5	162	1	4			LEH
2002 05 17.96		S	12.7	AC	41	L	5	72	1.1	3/			RES
2002 05 31.96		S	12.7	HS	31.0	J	6	109	1.2	3/			BOU
2002 05 31.97		S	12.6	HS	31.0	J	6	109	1.5	1/			DIJ
2002 06 01.91		S	12.5	AC	41	L	5	72	1.2	3/			RES
2002 06 01.91		S	14.3	HS	44.0	L	5	156	0.3	4			HAS02
2002 06 05.99		S	12.8	AC	41	L	5	121	1.2	3			RES
2002 06 12.94		S	13.1	HS	35	L	5	158	0.9	2/			HOR02
2002 06 15.00		S	13.0	HS	35	L	5	158	1.0	3			HOR02
2002 06 16.00		S	14.4	NP	45	L	5	100	1.5	2			MAR02
2002 06 16.01		S	14.0	NP	45	L	5	100	1	2			SAN04
2002 06 17.97		M	13.1	HS	42	L	5	81	1.3	4			LEH
2002 06 17.99		S	12.5	AC	41	L	5	121	1.5	4/			RES
2002 06 18.95		M	13.3	HS	35	L	5	158	0.8	4			HOR02
2002 06 29.92		M	13.3	HS	42	L	5	81	1.3	3/			LEH
2002 06 29.96		M	13.2	HS	35	L	5	158	1.0	3/			HOR02
2002 07 05.00		M	13.2	HS	35	L	5	158	0.9	4			HOR02
2002 07 06.99		S	13.9	NP	45	L	5	91	1	2			MAR02
2002 07 06.99		S	14.2	NP	45	L	5	91	1	2			SAN04
2002 07 07.97		M	13.2	HS	35	L	5	158	0.7	5			HOR02
2002 07 08.92		M	13.0	HS	42	L	5	81	1.5	3/			LEH
2002 07 08.96		M	13.3	HS	35	L	5	158	0.7	4			HOR02
2002 07 09.92		M	13.0	HS	42	L	5	81	1.4	3/			LEH
2002 07 10.88		S	14.0	HS	38	L	4	126	0.8	5/			SAR02
2002 07 11.97		S	12.9	GA	25.4	J	6	115	0.8	3			BOU
2002 07 14.94		M	13.1	HS	42	L	5	81	1.4	3			LEH
2002 07 15.97		S	12.8	HS	31.0	J	6	109	0.8	3			BOU
2002 07 15.99		S	12.5	HS	31.0	J	6	109	1	2/			DIJ
2002 07 28.87		S	12.7	AC	41	L	5	121	1.0	3/			RES
2002 07 28.90		B	13.3	HS	42	L	5	81	1.3	3/			LEH
2002 07 29.90		B	13.3	HS	42	L	5	81	1.3	3/			LEH

Comet P/2001 MD_7 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 05.95		S	12.0	TK	35	L	5	158	1.4	3			HOR02

Comet C/2001 N2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 03.02		S	13.4	AC	41	L	5	121	0.8	2/			RES
2002 05 07.96		S	13.2	AC	41	L	5	121	0.9	3			RES
2002 05 09.97		S	13.3	AC	41	L	5	121	0.9	3			RES
2002 05 11.97		S	13.2	AC	41	L	5	121	0.9	3			RES
2002 05 14.02		S	13.2	AC	41	L	5	121	0.8	3			RES
2002 05 15.98		S	13.6	AC	41	L	5	121	0.8	3			RES
2002 05 16.97		S	13.3	AC	41	L	5	121	0.8	3			RES
2002 05 17.98		S	13.4	AC	41	L	5	121	0.8	3			RES
2002 06 01.00		S	13.5	AC	31.0	J	6	143	0.8	2/			BOU
2002 06 01.00		S	13.6	AC	31.0	J	6	143	0.5	0/			DIJ
2002 06 01.90		S	13.3	AC	41	L	5	121	1.0	2/			RES
2002 06 16.05		S	14.6	NP	45	L	5	100	< 1	1			MAR02
2002 06 18.00		S	13.4	AC	41	L	5	121	1.0	2/			RES
2002 06 29.99		M	13.5	HS	35	L	5	158	0.8	3			HOR02
2002 07 04.98		S	13.5	HS	35	L	5	158	0.8	3			HOR02
2002 07 07.01		M	13.3	NP	45	L	5	91	1	3			SAN04
2002 07 07.01		S	13.5	NP	45	L	5	91	1.5	2			MAR02
2002 07 08.03		S	13.6	HS	35	L	5	158	0.9	3			HOR02
2002 07 09.00		S	13.6	HS	35	L	5	158	0.8	3			HOR02
2002 07 10.89		S	13.8	HS	38	L	4	126	0.9	4			SAR02
2002 07 14.96		M	12.9	HS	42	L	5	81	1.2	4/			LEH
2002 07 16.00		S	12.7	GA	31.0	J	6	109	1.2	2/			BOU

Comet C/2001 N2 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 07 16.00		S	12.8	GA	31.0	J	6	109	0.8	0/			DIJ
2002 07 28.86		M	12.8:	HS	42	L	5	81	1.5	3/			LEH
2002 07 29.86		M	12.9	HS	42	L	5	81	1.5	3/			LEH

Comet C/2001 OG_108 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 14.73	x	B	10.9	TJ	20	L	5	30	2.5	4			POW01
2002 02 14.73	x	S	11.1	TJ	20	L	5	50	2.2	3/			BUR04
2002 02 14.75	x	S	10.6	TT	30	L	4	96	& 2	s3/			GRA09
2002 02 15.16	x!	S	11.3	TJ	35	L	6	150	1	d2			CHR
2002 02 15.76		S	10.5	TI	7.6	L	9	18	1.5	3			CER01
2002 02 16.16	x!	S	11.4	TJ	35	L	6	150	1	d2			CHR
2002 02 17.14	x!	S	11.3	TJ	35	L	6	105	1	d2			CHR
2002 02 17.74	x	B	11.5	TJ	20	L	5	50	& 2	4			BAR10
2002 02 17.74	x	S	11.2	TJ	20	L	5	50	1.0	4			POW01
2002 03 04.15		I[	10.0	AA	6.0	B		20					CSU
2002 03 07.16		S	9.3	AC	6.3	R	13	52	4	1			KOS
2002 03 09.11	x!	S	10.9	TJ	35	L	6	105	& 1.5	d3			CHR
2002 03 09.13	x	B	11.0	TT	33	L	6	100	& 1	3/			FIL04
2002 03 09.13	x	B	12.0	TJ	25	L	6	54	1.0	2			SWI
2002 03 09.14		S	9.0	AC	6.3	R	13	52	5	2			KOS
2002 03 10.03		S	9.7	HS	36	L	6	80	3	3			BAR06
2002 03 10.81	x	S	10.0	TT	30	L	4	96	1.6	3/			GRA09
2002 03 11.12	x	B	11.3	TT	33	L	6	100	& 2	3			FIL04
2002 03 11.12	x!	S	11.0	TJ	35	L	6	105	1.5	d2			CHR
2002 03 12.11	x!	S	11.0	TJ	35	L	6	105	1.5	d2			CHR
2002 03 12.12	x	M	11.0:	TJ	31.7	L	5	150		4			ADA02
2002 03 12.13	x	S	10.3	TJ	25	L	6	54	1.5	2			SWI
2002 03 13.05		S	10.0	HS	36	L	6	80	2.5	3			BAR06
2002 03 14.06		S	10.1	HS	36	L	6	80	2.2	3			BAR06
2002 03 14.14		S	8.8	AC	6.3	R	13	52	8	1			KOS
2002 03 14.95		B	10.6	HS	15.0	R	5	25	1.3	4			CHE03
2002 03 15.97	x	S	10.5	TJ	20	L	5	50	2	d3			BAR10
2002 03 15.97	x	S	10.5	TJ	20	L	5	50	3	d4			SRE
2002 03 15.99	x	S	10.4	TT	20	L	5	50	2.3	3/			POW01
2002 03 16.03		S	10.0	HS	36	L	6	90	3	3			BAR06
2002 03 17.09		S	10.4	HS	36	L	6	90	2.7	3			BAR06
2002 03 17.10	x	M	10.2	TT	15	L	6	30	2.2	s3			MAK02
2002 03 17.10	x	S	10.5	TT	20	L	5	50	2.7	3/			POW01
2002 03 18.09		S	10.4	HS	20	L	5	60	2.5	3			BAR06
2002 03 18.10	x	S	10.1:	TT	15	L	6	30	& 2.5	S3/			MAK02
2002 03 18.14	x	S	10.2	TJ	25	L	6	54	1.5	2			SWI
2002 03 19.11	x!	S	10.9	TJ	35	L	6	105	& 1.2	d2			CHR
2002 03 26.01	x	S	10.5:	TJ	20	L	5	50	& 2	d4			SIE01
2002 03 26.01	x	S	10.5:	TT	20	L	5	50	1.5	4			POW01
2002 03 29.79	x	S	10.9	TJ	11	L	7	96	& 2.5	2/			SAD
2002 03 30.12	x	S	11.5	TT	33	L	6	100	& 2	1/			FIL04
2002 03 30.82	x	S	10.1	TT	30	L	4	96	1.6	2			GRA09
2002 04 02.77	x	S	10.5	TJ	11	L	7	54	& 2.5	3/			SAD
2002 04 02.93	x	S	10.9	TJ	20	L	4	80	2	s2/			TOB
2002 04 03.10	x	S	9.9	TT	33	L	6	100	& 2	1/			FIL04
2002 04 03.10	x	S	10.0:	TT	15	L	6	30	& 2	2			MAK02
2002 04 03.77	x!	S	10.8	TJ	35	L	6	105	& 2	d2			CHR
2002 04 03.81	x	S	9.7:	TT	6.7	B		20	& 4	1			SCI
2002 04 03.82	x	S	10.7:	TJ	11	L	7	54	& 2.2	2			SAD
2002 04 03.83	x	S	10.7	TJ	15	L	6	150	2.9	2			KEZ
2002 04 03.85	x	S	9.8:	TJ	25	L	5	66	& 3	1/			KID01
2002 04 03.86	x	S	10.2	TJ	20	L	4	32	3	3			TOB
2002 04 03.88	x	S	10.7	TT	33	L	6	100	& 2.7	1/			SCI
2002 04 03.91	x	B	10.4	TT	33	L	6	72	& 3	1/			FIL04
2002 04 04.00	x	S	10.8	TT	20	L	5	50	4	2/			POW01
2002 04 04.80	x	S	10.4	TJ	11	L	7	32	2.6	2			SAD
2002 04 05.76		S	10.2	TJ	25.4	T	6	62	3.0	3			YOS04
2002 04 06.78	x!	S	10.8	TJ	35	L	6	150	& 2	d1			CHR

Comet C/2001 OG_108 (LONEOS) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 07.02	x	S	10.3	TJ	15	L	6	45	& 3.0	2			WLO
2002 04 09.12		M	10.2	TT	13	L	8	69	3.2	2/			HOR02
2002 04 10.01	x	S	10.4	TJ	18	L	7	75	& 2	2			WLO
2002 04 11.78	x!	S	11.0:	TJ	35	L	6	105	& 2	d1			CHR
2002 04 11.89		B	10.8	TJ	34.0	L	4	44	2	1			SIE
2002 04 11.95	x	S	9.9	TT	33	L	6	72	& 4	1			FIL04
2002 04 12.06	x	S	10.9	TT	15	L	6	45	3.4	2			SIE01
2002 04 12.09	x	S	10.2:	TT	6.7	B		20	& 3	1			SCI
2002 04 12.17	x&	S	10.1	TT	20.0	L	4	32	2.0	d1			CH001
2002 04 12.90		B	10.3	HS	12.0	R	5	27	3	4			CHE03
2002 04 12.90		M	9.9	HS	36	L	6	80	3.4	3	0.05	253	BAR06
2002 04 13.78	x!	S	11.4	TJ	35	L	6	150	& 1.5	d1			CHR
2002 04 14.76	x!	S	11.2	TJ	35	L	6	105	& 1.5	d1			CHR
2002 04 14.86	x	B	11.0	TT	33	L		72	& 4	1/			FIL04
2002 04 14.86	x	S	10.7	TT	33	L		72	& 4	1/			FIL04
2002 04 16.07		M	10.2	TT	13	L	8	69	3.3	2/			HOR02
2002 04 17.88	x	S	10.6	TT	33	L	6	72	& 2	1			FIL04
2002 04 17.89	x	S	10.8	TJ	20	L	4	80	2	1			TOB
2002 04 18.89	x	S	10.7	TT	20	L	5	50	1.7	1			POW01
2002 04 20.10		S	11.0	TK	25.6	L	5	42	1.5	3			BIV
2002 04 22.88	x	S	10.8	TT	20	L	5	50	1.6	2			POW01
2002 04 30.83		M	11.5	TK	35	L	5	68	2.6	2			HOR02
2002 04 30.88	x	S	11.0	TT	20	L	5	50	1.6	1			POW01
2002 04 30.94		M	10.8	TI	11.4	L	9	36	1	4			CER01
2002 04 30.94		S	12.5:	HS	30	R	20	185	1.5	1			SHA02
2002 05 01.57	x	S	12.0:	TJ	32.0	L	5	58	& 2	2			NAG08
2002 05 01.80	x!	S	12.5	HS	35	L	6	105	0.5	d1			CHR
2002 05 01.85		S	11.5	TK	35	L	5	68	2.9	2/			HOR02
2002 05 01.88		M	11.3	TI	20	R	17	87	1.3	4			LEH
2002 05 02.46	x	S	11.8:	HS	32.0	L	5	58	& 3	2			NAG08
2002 05 02.84	x!	S	12.5	HS	35	L	6	150	0.5	d1			CHR
2002 05 02.85		S	11.6	TK	35	L	5	68	2.6	2			HOR02
2002 05 02.87	x	S	11.3	TT	15	L	6	45	3.0	1			SIE01
2002 05 02.87	x	S	11.3	TT	20	L	5	50	2.1	1			POW01
2002 05 02.88		S	11.0	AC	41	L	5	121	1.2	3			RES
2002 05 02.94		S	11.4	TK	25.4	J	6	72	2.0	1			BOU
2002 05 03.84		S	11.2	TK	35	L	5	68	2.8	1/			HOR02
2002 05 03.87		S	11.2	AC	41	L	5	121	1.2	2			RES
2002 05 04.90		S	12.7	TK	30	R	20	185	1.6	1			SHA02
2002 05 05.87	x	S	11.3	TT	20	L	5	50	2.2	1			POW01
2002 05 05.93		S	11.5	AC	41	L	5	121	1.2	2			RES
2002 05 06.82		S	11.2	TK	35	L	5	68	3.0	1			HOR02
2002 05 06.85		S	11.7	AC	41	L	5	121	1.0	2			RES
2002 05 07.80	x	S	12.6	HS	35	L	6	150	& 0.5	d1			CHR
2002 05 07.88		M	11.8	TI	20	L	4	42	1.4	3			LEH
2002 05 07.91		S	11.7	AC	41	L	5	72	1.5	2			RES
2002 05 08.85		M	12.1	HS	42	L	5	66	1	3			LEH
2002 05 08.93	x	S	11.5	TI	30	L	4	132	1.5	1/			GRA09
2002 05 08.93		S	13.2:	HS	36	L	6	90	1.7	1/			BAR06
2002 05 09.83		S	11.9	TK	35	L	5	68	2.3	1			HOR02
2002 05 09.84		M	12.1	HS	20	R	17	87	1	3			LEH
2002 05 09.88		S	11.9	AC	41	L	5	72	1.1	2			RES
2002 05 11.87	x	S	11.5	TT	20	L	5	50	2.1	1			POW01
2002 05 11.88	x	S	11.4	TT	20	L	5	50	2.1	1			SIE01
2002 05 12.91		S	12.8:	HS	20.3	T	10	67	1.5	2			BIV
2002 05 13.85		M	11.8	TI	20	L	4	42	1.3	3			LEH
2002 05 13.86		M	12.4	HS	11.4	L	9	75	1	4			CER01
2002 05 13.88		S	13.1	HS	11.4	L	9	75	1				NED
2002 05 15.84		M	12.6	HS	42	L	5	81	1	3			LEH
2002 05 15.84		S	12.8	HS	35	L	5	158	1.4	2			HOR02
2002 05 16.86		S	12.6	AC	41	L	5	121	1.0	2			RES
2002 05 17.86		S	12.4	AC	41	L	5	121	1.2	2			RES
2002 06 02.40		S[	11.8	HS	31	L	7	217	! 1.0				RAE
2002 06 03.32		S[	12.5	HS	31	L	7	217	! 0.5				RAE

Comet C/2002 E2 (Snyder-Murakami)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 15.07		B	10.2	HS	15.0	R	5	25	2.5	3			CHE03
2002 03 16.06	x	S	10.5	TJ	20	L	5	50	2.5	d3			SRE
2002 03 16.06	x	S	10.6	TJ	20	L	5	50	2.6	d3/			BAR10
2002 03 16.10		B	10.2	HS	15.0	R	5	25	2.5	3			CHE03
2002 03 16.10	x	S	10.0	TT	20	L	5	50	4.0	3/			POW01
2002 03 17.11	x	S	9.7	TT	20	L	5	50	4.6	3			POW01
2002 03 17.15		B	10.3	HS	15.0	R	5	25	3	3			CHE03
2002 03 18.15	x	S	10.0	TJ	25	L	6	54	4	1			SWI
2002 03 26.05	x	B	10.0:	TT	20	L	5	50	& 2.7	d3			SIE01
2002 03 26.06	x	S	10.2:	TT	20	L	5	50	2.5	3			POW01
2002 04 03.11	x	S	10.6	TT	15	L	6	30	3.5	3/			MAK02
2002 04 04.00	x	S	10.5:	TJ	11	L	7	54	1.9	2			SAD
2002 04 04.02	x	S	10.3	TT	20	L	5	50	3.3	3			POW01
2002 04 04.07	x	S	10.4	TT	33.0	L	6	72	& 2.5	1			FIL04
2002 04 05.08	x	S	11.0	TJ	11	L	7	32	2	1			SAD
2002 04 09.09		S	10.3	TT	13	L	8	69	4.0	1			HOR02
2002 04 12.01	x	S	10.4	TT	15	L	6	45	1.9	d3			SIE01
2002 04 12.05	x	B	11.0:	TJ	35	L	6	105	1	d1			CHR
2002 04 12.15		B	11.0	HS	34.0	L	4	44	1.2	2			CHE03
2002 04 16.10		S	10.5	TT	13	L	8	69	3.5	1			HOR02
2002 04 18.94	x	S	10.4	TT	20	L	5	50	2	2			POW01
2002 04 22.90	x	S	10.6	TT	20	L	5	50	1.8	2			POW01
2002 04 30.86	x	S	11.1	TT	20	L	5	50	0.8	1			POW01
2002 04 30.91		S	11.1	TT	35	L	5	68	2.9	1/			HOR02
2002 05 01.57	x	S	11.2	TJ	32.0	L	5	58	2.3	4			NAG08
2002 05 01.89	x	I	11.6	TT	20	L	6	114	0.5	1			WAL03
2002 05 01.90		S	11.2	TK	35	L	5	68	2.7	1/			HOR02
2002 05 01.92	x	S	11.6:	TJ	15	L	6	150	1.7	1/			KEZ
2002 05 01.96		S[	12.5	HS	30	R	20	230					SHA02
2002 05 02.88		S	11.3	TK	35	L	5	68	2.5	1			HOR02
2002 05 02.91		S	11.3	AC	41	L	5	121	1.2	2			RES
2002 05 02.91	x	S	11.5	TT	20	L	5	50	2.2	2			POW01
2002 05 02.91		S	11.7	TK	25.4	J	6	72	1.4	2			BOU
2002 05 02.92	x	S	11.7	TT	15	L	6	45	1.8	2			SIE01
2002 05 03.89		S	11.2	TK	35	L	5	68	2.9	1			HOR02
2002 05 03.99		S	11.4	AC	41	L	5	121	1.2	2			RES
2002 05 04.87		M	11.8	AS	30	L	5	60	1	1			NEV
2002 05 04.97		M	11.6	GA	15	L	5	50	1.5	2/			SHU
2002 05 05.04	x	S	11.4:	TJ	15	L	6	150	0.8	1/			KEZ
2002 05 05.92	x	S	11.6	TT	20	L	5	50	2.0	2			POW01
2002 05 05.94		S	11.5	AC	41	L	5	121	1.5	2			RES
2002 05 06.85		S	11.1	TK	35	L	5	68	2.7	1/			HOR02
2002 05 06.89		S	11.5	AC	41	L	5	72	1.4	2			RES
2002 05 07.91		M	11.5	TI	20	L	4	42	1.8	3			LEH
2002 05 07.91		S	11.2	TK	35	L	5	68	2.7	2			HOR02
2002 05 07.94		S	11.6	AC	41	L	5	72	1.5	2			RES
2002 05 08.04		M	11.2	TI	11.4	L	8	36	2.5	2			CER01
2002 05 08.65	x	S	12.2	HS	32.0	L	5	91	1.1	5			NAG08
2002 05 09.89		S	11.7	AC	41	L	5	72	1.2	2			RES
2002 05 09.90		S	11.2	TK	35	L	5	68	3.1	1/			HOR02
2002 05 09.91		M	11.5	TI	20	R	17	87	1.4	3			LEH
2002 05 10.07		M	11.1	TI	11.4	L	8	36	2	2			CER01
2002 05 11.90		S	11.8	AC	41	L	5	72	1.2	2			RES
2002 05 11.94	x	S	12.0	TT	20	L	5	50	1.4	1			POW01
2002 05 11.95	x	S	12.4	TT	20	L	5	50	1.1	1			SIE01
2002 05 11.96		M	12.1	HS	20	R	17	87	1.4	3			LEH
2002 05 12.92		S	12.0	TK	25.4	J	6	115	1.3	3			BOU
2002 05 12.93		S	11.5	TK	25.4	J	6	115	0.9	2/			DIJ
2002 05 13.03		M	11.6	TI	11.4	L	8	75	2	2			CER01
2002 05 13.94		M	11.8	HS	11.4	L	8	75	2	2			CER01
2002 05 13.94		M	12.0	HS	20	L	4	42	1.6	3			LEH
2002 05 14.01		S	12.0	AC	41	L	5	121	1.2	2			RES
2002 05 14.88		S	12.0	AC	41	L	5	72	1.2	1/			RES
2002 05 15.91		S	11.5	TK	35	L	5	68	3.1	1/			HOR02
2002 05 15.94		M	12.5	HS	42	L	5	81	1.3	3/			LEH

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 16.01		S	12.4	AC	41	L	5	121	1.4	1/			RES
2002 05 16.90		S	12.2	AC	41	L	5	121	1.5	1/			RES
2002 05 16.93		S	11.6	TK	35	L	5	68	2.4	2			HOR02
2002 05 16.94		M	12.3	HS	42	L	5	81	1	3/			LEH
2002 05 17.84		S	11.5	TK	35	L	5	68	2.7	2			HOR02
2002 05 17.99		S	12.5	AC	41	L	5	72	1.4	2			RES
2002 05 31.97		S	12.6	TK	31.0	J	6	109	1.4	2/			BOU
2002 05 31.98		S	12.4	TK	31.0	J	6	109	1.2	1			DIJ
2002 06 01.89		S	12.7	AC	41	L	5	121	1.2	1			RES
2002 06 01.90		S	12.2	HS	44.0	L	5	156	0.8	2			HAS02
2002 06 02.56	x	S	12.7	HS	45.7	L	4	170	1.2	2			MUR02
2002 06 05.01		S	12.9	AC	41	L	5	121	1.0	2			RES
2002 06 06.00		S	13.0	AC	41	L	5	121	1.0	2			RES
2002 06 09.57	x	S	13.0	HS	45.7	L	4	170	1.1	2			MUR02
2002 06 13.01		S	12.3:	HS	35	L	5	158	1.7	2			HOR02
2002 06 15.03		S	12.7	HS	35	L	5	158	1.7	1/			HOR02
2002 06 17.92		S	13.4	AC	41	L	5	121	0.9	2			RES
2002 06 17.94		B	13.3	HS	42	L	5	81	1.2	3			LEH
2002 06 18.88		S	12.8	HS	35	L	5	158	1.6	2/			HOR02
2002 06 18.97		B	13.4	HS	42	L	5	81	1.3	3			LEH
2002 06 28.96		B	13.7	HS	42	L	5	81	1.1	3/			LEH
2002 06 29.91		S	14.1	HS	35	L	5	158	1.0	2/			HOR02
2002 06 29.95		B	13.6	HS	42	L	5	81	1.1	3/			LEH
2002 07 04.92		S	14.3	HS	35	L	5	158	0.8	2/			HOR02
2002 07 06.86		S	13.3	HS	38	L	4	126	1.4	2			SAR02
2002 07 08.94		B	13.6	HS	42	L	5	81	1.3	3			LEH
2002 07 09.94		B	13.6	HS	42	L	5	81	1.2	3			LEH

Comet C/2002 F1 (Utsunomiya)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 26.11	x	S	10.2:	TT	20	L	5	50	& 2.4	3			POW01
2002 03 26.12	x	B	8.5:	TT	20	L	5	50	& 3.8	d4			SIE01
2002 04 04.06	xa	B	7.9	TT	20	L	5	50	2.3	5	0.08	276	POW01
2002 04 04.11	x	S	7.5	TT	6.6	B		20	& 3	5/	0.1	292	FIL04
2002 04 05.11	x	S	8.0:	TJ	11	L	7	32	& 3.5	s4	&0.1	300	SAD
2002 04 09.13		B	7.0	TI	11.4	L	8	23	3				NED
2002 04 09.13		M	6.6	TT	8.0	B		10	5	6/			HOR02
2002 04 10.12	x	B	6.5:	TT	6.7	B		20	& 1	7			SCI
2002 04 12.02	x&	S	6.3:	TJ	5.0	B		10	0.5	3			MAR12
2002 04 12.05	x	B	5.6	TT	15	L	6	45	2.7	D6	0.2	320	SIE01
2002 04 12.05	x&	B	5.8	TJ	6.0	B		10	5	s5	0.5	320	KIS03
2002 04 12.07		B	5.4	TJ	6.0	B		20	12	9	0.2		SIE
2002 04 12.07	x	B	5.8	TJ	35	L	6	105	3	S6	15 m		CHR
2002 04 12.08	x	B	5.9	TJ	6.0	B		20	1	7	0.5	328	SIK01
2002 04 12.08	xa	B	5.7	TT	6.7	B		20	& 2	6	&1.0	315	SCI
2002 04 12.09	x	B	5.8	TJ	6.5	R	6	28	1	8	0.2		SWI
2002 04 12.10		B	5.2	TJ	11.0	B		20	1.3	9	0.3	315	CHE03
2002 04 12.79	x$	M	5.4	TJ	5.0	B		12	3	8	0.5	315	NAG08
2002 04 14.93		S	4.8	TJ	5.0	B		7	4	9	1	10	VET
2002 04 15.93		S	4.4	TJ	5.0	B		7	4	9	1.5		VET
2002 04 16.10	xa	B	4.2	TT	6.0	B		20	& 3	8	&0.4	320	SCI
2002 04 16.12	a	M	4.7	TT	8.0	B		10	2	8/	0.5	330	HOR02
2002 04 18.09	xa	B	3.8:	TT	6.0	B		20	& 3	8	&1.0	334	SCI
2002 04 18.10		B	4.5	TJ	11.0	B		20	1.8	9	0.8	330	CHE03
2002 04 20.16		S	5.6:	TK	25.6	L	5	42	2.0	5	>0.1	0	BIV
2002 04 20.84		S	5.7:	TK	25.6	L	5	42	2.5	5	>0.1	345	BIV
2002 04 21.80		[	4.3	TT	8.0	B		10					HOR02
2002 04 21.81	x$	B	4.5:	TJ	6.0	B		20	& 2	7	0.40		KID01
2002 04 22.80	x	B[	4.8	TT	6.0	B		20	! 2				SCI
2002 04 22.80	*$	S	4.5	TT	6.0	B		20	3	7	0.5		RES
2002 04 22.81	x$	S	4.8:	TJ	6.0	B		20	& 2		0.30		KID01
2002 04 24.85		S	4.8	TK	5.0	B		7	3	6			BIV
2002 04 24.86		S	5.4	TK	20.3	L	6	48	2.0	7	>0.15	0	BIV
2002 04 25.86		S	5.0	TK	5.0	B		7	3	6	0.6	20	BIV

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 25.87		S	5.1	TK	20.3	L	6	48	3.0	7	>0.25	15	BIV
2002 04 27.80	x	B	4.6:	TT	5.0	B		7	& 7	5			FIL04
2002 04 27.83	xa	B	4.4:	TJ	6.0	B		20	& 2	7			KID01
2002 04 29.82	x&	B	5.0:	TT	5.0	B		10	0.5	D8	0.15	35	MAR12
2002 04 29.86		S	4.8	TK	5.0	B		7	2	7	0.6	30	BIV
2002 04 29.87		S	4.6	TK	25.6	L	5	42	2.0	7	0.4	40	BIV
2002 04 30.81	a	M	4.5	TT	8.0	B		10	4	6			HOR02
2002 04 30.82		S	4.9	TT	5.0	B		10	1.1	8	0.33	44	HAS02
2002 04 30.82	xa	B	4.9	TT	6.0	B		30	1.5	3	0.2	38	POW01
2002 05 01.44	x$	S	4.9	TJ	32.0	L	5	58	1.3	6/			NAG08
2002 05 01.79		S	5.2:	TJ	7.0	B		16	3	6	0.10	15	GIA01
2002 05 01.80	x	B	6.0:	TJ	14	L	6	47	& 5	7	0.07		ADA02
2002 05 01.81	a	M	4.5	TT	8.0	B		10	5	5/			HOR02
2002 05 01.81	xs	S	5.8:	TT	6.7	B		20	& 2	5	0.07	45	SCI
2002 05 01.86		S	5.7:	TK	20.3	L	6	48	2.0	6	>0.16	45	BIV
2002 05 01.87		S	6.3	HI	8.0	B		20	1.5	7	0.1	25	SHA02
2002 05 02.44	x$	S	5.3	TJ	32.0	L	5	58	0.9	6			NAG08
2002 05 02.81	xs	S	5.5:	TT	6.7	B		20	& 2	5			SCI
2002 05 02.81	xs	S	6.1:	TJ	11	L	7	32	& 3.5	2/			SAD
2002 05 02.82	$	S	5.5:	TT	6.0	B		20	2	5			RES
2002 05 03.82	a	M	4.9	TT	8.0	B		10	6	5			HOR02
2002 05 03.88		I[	6.5	YG	15.2	L	5	38					GRA04
2002 05 03.88		S	6.5:	HI	8.0	B		20	2	5			SHA02
2002 05 04.81	xs	S	5.8:	TT	6.7	B		20	& 3	4			SCI
2002 05 04.82	x	B	5.6:	TT	6.0	B		30	2.5	4			POW01
2002 05 04.88		S[	6.0	HI	8.0	B		20					SHA02
2002 05 11.85		S	7.8:	TK	20.3	T	10	67	1.5	4			BIV
2002 05 11.90		S	8.3	TK	8.0	B		20	1	8			AMO01
2002 05 12.86		S	8.8:	TK	20.3	T	10	67	1.0	5			BIV
2002 05 12.89		B	7.3	TK	8.0	B		20	1	8			AMO01
2002 05 17.89		S	8.0	TT	8.0	B		11	2	8			DES01
2002 05 25.89		S	8.2	TK	8.0	B		20	1	7			AMO01
2002 05 26.89		S	8.3	TK	8.0	B		20	1	7			AMO01

Comet C/2002 H2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 30.90	x	S	13.1	HS	20	L	5	110	0.8	3			POW01
2002 05 01.96		S	12.5	HS	35	L	5	158	2.1	1/			HOR02
2002 05 02.90		S	12.8	AC	41	L	5	121	0.9	4			RES
2002 05 02.94	x	S	12.6	HS	20	L	5	110	0.7	5			POW01
2002 05 02.95	x	S	12.1	TT	20	L	5	110	0.4	4			SIE01
2002 05 02.97		S	12.6:	TK	25.4	J	6	115	1.0	2			BOU
2002 05 03.91		S	12.5	HS	35	L	5	158	1.9	1/			HOR02
2002 05 03.99		S	12.9	AC	41	L	5	121	0.9	4			RES
2002 05 05.90		M	12.5	AS	30	L	5	60	1.5	1			NEV
2002 05 05.95	x	S	12.6	HS	20	L	5	110	1.2	4			POW01
2002 05 06.87		S	12.4	HS	35	L	5	158	2.1	2			HOR02
2002 05 06.89		S	12.8	AC	41	L	5	121	1.0	3/			RES
2002 05 07.94		S	12.2	HS	35	L	5	158	1.8	2/			HOR02
2002 05 07.97		M	12.8	HS	20	L	4	106	1.3	3/			LEH
2002 05 07.98		S	12.9	AC	41	L	5	121	1.0	4/			RES
2002 05 09.00	x	S	12.8	HS	30	L	4	191	0.8	4			GRA09
2002 05 09.89		S	12.7	AC	41	L	5	121	1.0	4/			RES
2002 05 09.93		S	12.5	HS	35	L	5	158	2.0	2/			HOR02
2002 05 09.95		M	13.2	HS	20	R	17	140	1	3/			LEH
2002 05 11.90		S	12.6	AC	41	L	5	121	1.0	4/			RES
2002 05 11.93	x	S	13.1	HS	20	L	5	110	1.0	4			POW01
2002 05 11.94	x	S	12.9	TT	20	L	5	110	0.9	3			SIE01
2002 05 12.92		M	12.2	CD	41	L	4	88	1.2	2/			SHU
2002 05 12.95		S	12.8	AC	25.4	J	6	115	1.4	2/			BOU
2002 05 12.96		S	13.1	AC	25.4	J	6	115	0.8	1/			DIJ
2002 05 13.89		M	12.2	CD	41	L	4	88	1	2/			SHU
2002 05 13.96		M	12.4	HS	11.4	L	8	75	1	3			CER01
2002 05 13.98		M	13.1	HS	20	L	4	106	1	4			LEH

Comet C/2002 H2 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 14.91		S	12.7	AC	41	L	5	121	1.0	4			RES
2002 05 15.98		B	13.6	HS	42	L	5	162	0.8	4			LEH
2002 05 16.00		S	12.9	AC	41	L	5	121	0.8	4			RES
2002 05 16.91		S	12.6	AC	41	L	5	121	0.9	4			RES
2002 05 16.95		B	13.7	HS	42	L	5	162	0.7	4			LEH
2002 05 16.97		S	12.6	HS	35	L	5	158	1.9	2			HOR02
2002 05 17.87		S	12.6	HS	35	L	5	158	1.8	2			HOR02
2002 05 17.99		S	12.6	AC	41	L	5	72	1.1	4			RES
2002 05 20.74	x	S	12.9	HS	32.0	L	5	91	1.7	3			NAG08
2002 05 31.98		S	13.2	AC	31.0	J	6	109	1.2	2			BOU
2002 05 31.99		S	13.3	AC	31.0	J	6	109	0.9	1			DIJ
2002 06 01.90		S	13.8	HS	44.0	L	5	156	0.6	4			HAS02
2002 06 12.96		S	13.1	HS	35	L	5	158	1.6	1/			HOR02
2002 06 14.94		S	13.7	HS	35	L	5	158	1.4	2/			HOR02
2002 06 18.01		S	13.6	AC	41	L	5	121	0.7	3			RES
2002 06 19.02		S	13.8	HS	35	L	5	158	1.4	2			HOR02

Comet C/2002 O4 (Hoenig)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 07 28.86		S	11.3	TJ	41	L	5	121	2.2	3			RES
2002 07 28.91		S	10.0	TK	25.4	J	6	58	2.8	3			BOU
2002 07 28.91		S	10.1	TK	25.4	J	6	58	2.6	2/			DIJ
2002 07 28.94		M	10.6	HS	42	L	5	81	2	3			LEH
2002 07 29.91		S	10.2	TK	25.4	J	6	58	3.3	2/			BOU
2002 07 29.91		S	10.3	TK	25.4	J	6	58	2.5	2/			DIJ
2002 07 29.91		S	10.3	TK	30.0	L	5	72	2.0	3			GIL01
2002 07 29.94		M	10.2	HS	42	L	5	81	3	2/			LEH
2002 07 29.94		S	9.8	TJ	20.3	T	10	50	6	2			GON05
2002 07 31.34		M	9.2	TK	37	L	3	172	5	3	3	m 200	LIN04
2002 07 31.97		S	9.5	TJ	8.0	B		11	3	2			GON05
2002 08 01.00		S	9.7	TJ	20.3	T	10	36	5	3			GON05

◇ ◇ ◇

Non-Visual Data (old format)

Comet 7P/Pons-Winnecke

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 19.84	!	k	18.5:	LA	103.0	C	4	a120		9			ORI
2002 01 24.86		C	18.9	GA	60.0	Y	6	a240	0.25				NAK01
2002 02 24.80		C	17.7	GA	60.0	Y	6	a240	0.3				NAK01
2002 03 06.76		C	17.2	TJ	18.0	L	6	a240	0.2				KAD02
2002 03 11.83		C	16.9	GA	60.0	Y	6	a120	0.3				NAK01
2002 05 12.71	xa	C	13.9	HV	35.0	C	9	a120	0.5	4	1.5m	255	TSU02
2002 05 20.77	a	C	13.9	GA	60.0	Y	6	a120	1.2		1.7m	261	NAK01
2002 05 21.73		C	14.0	TJ	18.0	L	6	a 90	0.5		0.7m	263	KAD02
2002 05 24.74		C	14.2	TJ	18.0	L	6	a 90	0.55		0.4m	254	KAD02
2002 06 04.74		C	14.3	TJ	18.0	L	6	a120	0.45				KAD02
2002 06 05.71		C	14.6	TJ	30.0	L	6	a 60	0.5				EZA
2002 06 06.75		C	14.5	TJ	25.0	L	5	a 60	0.4				KAD02
2002 06 09.78	a	C	13.2	GA	60.0	Y	6	a120	2.0				NAK01
2002 06 18.76		C	14.7	TJ	30.0	L	6	a 60	0.4				EZA

Comet 10P/Tempel

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 13.62		C	20.3	GA	60.0	Y	6	a240		9			NAK01
2002 02 07.59		C	20.3	GA	60.0	Y	6	a240		9			NAK01

Comet 11P/Tempel-Swift-LINEAR

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 05.45		C	18.8	GA	60.0	Y	6	a240	0.2				NAK01
2002 01 06.46	x	C	18.5:	HV	35.0	C	9	a180	0.3				TSU02
2002 01 11.45		C	18.7	GA	60.0	Y	6	a240	0.25				NAK01
2002 02 07.46		C	18.8	GA	60.0	Y	6	a240	0.3				NAK01

Comet 15P/Finlay

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 27.38		C	15.4	TJ	18.0	L	6	a 30	0.4				KAD02
2002 02 09.39		C	14.1	TJ	18.0	L	6	a 60	0.65				KAD02
2002 02 09.41	$	H	13.6	LA	30.0	L	6	a240	0.4	5			EZA
2002 02 10.39		C	13.8	TJ	18.0	L	6	a 60	0.5				KAD02
2002 02 11.40	a	H	13.3	LA	30.0	L	6	a240	0.5	5			EZA
2002 02 12.40	xa	C	12.6	HV	35.0	C	9	a300	0.7	3			TSU02
2002 02 18.40	xa	C	13.1	HV	35.0	C	9	a300	0.6	4			TSU02
2002 02 20.40	a	H	13.6	LA	30.0	L	6	a360	0.5	5			EZA
2002 03 04.40	xa	C	13.0	HV	35.0	C	9	a540	0.6	4			TSU02
2002 03 09.42	a	H	13.6	LA	30.0	L	6	a360	0.5	5			EZA
2002 03 13.42	a	H	13.6	LA	30.0	L	6	a360	0.5	5			EZA
2002 03 24.42		C	14.0	TJ	30.0	L	6	a360	0.4				EZA
2002 03 30.43		C	14.0	TJ	30.0	L	6	a240	0.4				EZA

Comet 16P/Brooks

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 10 13.12		C	15.9	UO	57.0	P	5	a 60					TIC
2002 01 06.56	x	C	17.2	HV	35.0	C	9	a720	0.4	3			TSU02
2002 01 11.50	x	C	17.0	HV	35.0	C	9	a120					TSU02
2002 02 01.51	x	C	18.2	HV	35.0	C	9	a480	0.2				TSU02
2002 02 15.55		C	18.5	GA	60.0	Y	6	a240	0.4			80	NAK01

Comet 19P/Borrelly

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 06.75	xa	C	13.0	HV	35.0	C	9	a120			8.0m	286	TSU02
2002 02 06.70	a	V	12.6	LA	50.0	C	12	C240	2.6	5	>10.2m	293	FUK02
2002 02 06.71	a	H	11.7	LA	50.0	C	12	E400	3.2	5	>10.2m	293	FUK02
2002 02 18.58	xa	C	12.7	HV	35.0	C	9	a120	1.2	4	5.0m	290	TSU02
2002 02 24.76		C	13.5	GA	60.0	Y	6	a120	1.5		4.4m	297	NAK01
2002 03 04.55	w	V	13.7	LA	50.0	C	12	C240	1.4	6	> 8.0m	279	FUK02
2002 03 04.59	w	H	12.1	LA	50.0	C	12	C240	1.7	6	> 8.0m	279	FUK02
2002 03 08.69	a	V	14.3	LA	50.0	C	12	B520	1.0	S6	3.6m	284	FUK02
2002 03 08.75	a	H	12.5	LA	50.0	C	12	E760	1.9	S6	10.0m	291	FUK02
2002 03 09.48	w	H	13.2	LA	50.0	C	12	C600	1.4	S6			FUK02
2002 03 09.59	w	V	14.5	LA	50.0	C	12	C600	0.9	S6	1.4m	281	FUK02
2002 03 09.61	xa	C	14.7	HV	35.0	C	9	a600	0.5	4			TSU02
2002 03 10.48	a	H	13.8	LA	50.0	C	12	A800	0.8	S6	1.8m	280	FUK02
2002 03 10.56	a	V	14.6	LA	50.0	C	12	C960	0.6	S6	1.1m	280	FUK02
2002 03 13.55	xa	C	13.9	HV	35.0	C	9	a120					TSU02
2002 03 13.74		C	13.0	GA	60.0	Y	6	a120	2.4				NAK01
2002 03 19.59	w	H	13.0	LA	50.0	C	12	D680	1.4	S6	> 9.5m	289	FUK02
2002 03 19.66	w	V	14.6	LA	50.0	C	12	B160	0.8	S6			FUK02
2002 03 19.69	w	H	13.0	LA	50.0	C	12	B520	1.7	S6	> 9.5m	289	FUK02
2002 04 04.50	xa	C	14.9	HV	35.0	C	9	a120	0.8	4	4.0m	283	TSU02
2002 04 07.61		C	15.6	TJ	18.0	L	6	a180	0.6		1.5m	279	KAD02
2002 04 14.52	a	V	15.1	LA	50.0	C	12	A440	0.8	5			FUK02
2002 04 14.60	a	H	13.5	LA	50.0	C	12	G920	1.3	5	5.2m	283	FUK02
2002 05 02.47	a	H	14.1	LA	50.0	C	12	C240	1.0	5	> 6.4m	288	FUK02
2002 05 12.52	xa	C	15.2	HV	35.0	C	9	a720	0.6	3			TSU02
2002 05 12.54		C	14.8	GA	60.0	Y	6	a240	1.5		3.9m	290	NAK01
2002 06 02.53	xs	C	16.4	HV	35.0	C	9	A200	0.4	3			TSU02

Comet 22P/Kopff

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 24.87		C	18.2	GA	60.0	Y	6	a240	0.35				NAK01
2002 02 12.79		C	17.9	GA	60.0	Y	6	a240	0.3	8			NAK01
2002 02 14.73		C	17.3	TJ	18.0	L	6	a240	0.2				KAD02
2002 03 06.72		C	16.8	TJ	18.0	L	6	a180	0.3				KAD02
2002 03 11.73		C	16.6	GA	60.0	Y	6	a120	0.35	8			NAK01
2002 04 07.59		C	16.2	TJ	18.0	L	6	a180	0.3				KAD02
2002 04 12.58		C	16.0	GA	60.0	Y	6	a120	0.45				NAK01
2002 05 12.55		C	16.0	GA	60.0	Y	6	a120	0.45			25	NAK01
2002 06 01.49		C	16.0:	TJ	25.0	L	5	a150	0.4				KAD02
2002 06 02.51		C	14.7	TJ	30.0	L	6	a120	0.5				EZA
2002 06 02.51	xs	C	15.4	HV	35.0	C	9	a480	0.4	3			TSU02
2002 06 03.48	xs	C	14.6	HV	35.0	C	9	A440	0.4	4			TSU02
2002 06 05.56		C	14.9:	GA	60.0	Y	6	a120	0.65				NAK01

Comet 28P/Neujmin

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.65	x	C	16.5:	TJ	60.0	Y	6	a240		9			NAK01
2002 06 01.56	x	C	16.4	TJ	60.0	Y	6	a120		9			NAK01

Comet 29P/Schwassmann-Wachmann

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 05.79		C	14.7:	TJ	18.0	L	6	a120	0.5				KAD02
2002 05 20.77	xa	C	13.8	HV	35.0	C	9	a120	1.0	5			TSU02
2002 05 20.78	a	C	13.5	GA	60.0	Y	6	a120	1.9	7			NAK01
2002 05 20.78	a	c	16.0	GA	60.0	Y	6	a120					NAK01
2002 05 21.73		C	14.2	TJ	18.0	L	6	a 90	0.8				KAD02
2002 06 09.75	a	C	12.0	GA	60.0	Y	6	a120	1.8	8/			NAK01
2002 06 09.75	a	C	12.4	GA	60.0	Y	6	a120	+ 0.4				NAK01
2002 06 15.77		C	12.5	TJ	30.0	L	6	a180	1.1				EZA
2002 06 18.66		C	12.7	TJ	30.0	L	6	a 60	1.4				EZA
2002 06 18.69	s	H	11.3	LA	30.0	L	6	a360	1.64				EZA
2002 06 18.69	s	H	13.1	LA	30.0	L	6	a360	+ 0.37				EZA
2002 06 18.71		C	12.0	TJ	18.0	L	6	a120	1.6				KAD02
2002 06 18.73	s	L	12.9	LA	30.0	L	6	a480	1.46				EZA
2002 06 18.73	s	L	14.7	LA	30.0	L	6	a480	+ 0.37				EZA
2002 06 18.74	s	V	12.2	LA	30.0	L	6	a480	1.46				EZA
2002 06 18.74	s	V	14.0	LA	30.0	L	6	a480	+ 0.37				EZA
2002 06 18.74	s	k	11.9	LA	30.0	L	6	a480	1.64				EZA
2002 06 18.74	s	k	13.7	LA	30.0	L	6	a480	+ 0.37				EZA
2002 06 22.75	a	C	12.1:	GA	60.0	Y	6	a120	2.5	3			NAK01
2002 06 22.75	a	c	15.4:	GA	60.0	Y	6	a120					NAK01
2002 07 07.70		C	12.3	TJ	18.0	L	6	a180	3.0				KAD02
2002 07 11.62		C	14.5	TJ	30.0	L	6	a120	0.6				EZA

Comet 31P/Schwassmann-Wachmann

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 11.65		C	17.6	GA	60.0	Y	6	a240	0.35		2.2m	289	NAK01
2002 02 07.61		C	17.2	GA	60.0	Y	6	a120	0.25		1.1m	289	NAK01
2002 02 19.70		C	17.2	TJ	18.0	L	6	a240	0.25				KAD02
2002 03 09.58		C	17.5	GA	60.0	Y	6	a240	0.3				NAK01
2002 04 12.53		C	18.2	GA	60.0	Y	6	a240	0.25				NAK01

Comet 44P/Reinmuth

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 08.63		C	17.5	HS	30.0	L	6	a180	0.4	5			EZA
2002 01 11.55		C	16.4	GA	60.0	Y	6	a240	0.7				NAK01

Comet 46P/Wirtanen

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 07 07.77		C	15.7	TJ	18.0	L	6	a 90	0.25				KAD02

Comet 47P/Ashbrook-Jackson

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 10 13.13		C	17.5	UO	57.0	P	5	a 60					TIC
2002 01 11.56		C	17.6	GA	60.0	Y	6	a240	0.35				NAK01

Comet 51P/Harrington

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 06.61	x	C	15.6	HV	35.0	C	9	a600					TSU02
2002 01 11.51	x	C	16.1	HV	35.0	C	9	A200	0.5	3			TSU02
2002 01 11.53		C	15.5	GA	60.0	Y	6	a240	1.2		4.0m	264	NAK01
2002 02 07.55		C	16.8	GA	60.0	Y	6	a240	0.65	1			NAK01

Comet 51P/Harrington (component A)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 09.88		C	16.4	UO	57.0	P	5	a 60					TIC
2002 01 11.53		c	18.0	GA	60.0	Y	6	a240					NAK01
2002 01 22.49	w	H	17.3	LA	50.0	C	12	D680	0.42	3			FUK02
2002 02 07.55		c	19.0	GA	60.0	Y	6	a240					NAK01

Comet 51P/Harrington (component B)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 09.88		C	16.6	UO	57.0	P	5	a 60					TIC
2002 01 11.53		c	18.1	GA	60.0	Y	6	a240					NAK01
2002 01 22.49	w	H	17.8	LA	50.0	C	12	D680	0.39	3			FUK02
2002 02 07.55		c	18.9	GA	60.0	Y	6	a240					NAK01

Comet 53P/Van Biesbroeck

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 12.57		C	19.2	GA	60.0	Y	6	a240	0.2				NAK01
2002 06 05.54		C	19.7:	GA	60.0	Y	6	a240	0.2				NAK01

Comet 57P/du Toit-Neujmin-Delporte

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 04.71		C	15.9	TJ	25.0	L	5	a120	0.3				KAD02
2002 06 05.65		C	16.3	TJ	30.0	L	6	a120	0.4	4			EZA
2002 06 05.71		C	15.6:	GA	60.0	Y	6	a120	0.45			250	NAK01
2002 06 09.68	a	C	15.4	GA	60.0	Y	6	a120	0.75			250	NAK01
2002 06 15.72		C	16.4	TJ	30.0	L	6	a120	0.4				EZA
2002 06 18.63		C	16.0	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 18.70		C	15.7	TJ	18.0	L	6	a120	0.45				KAD02
2002 07 11.59		C	14.5	TJ	30.0	L	6	a300	0.5				EZA

Comet 65P/Gunn

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 12.82		C	16.8	TJ	18.0	L	6	a180	0.25		0.2m	297	KAD02
2001 11 23.81		C	16.6	TJ	18.0	L	6	a240	0.3		0.3m	291	KAD02
2001 12 10.79		C	16.4	TJ	18.0	L	6	a240	0.4		0.6m	287	KAD02
2002 01 01.83		C	16.1	TJ	18.0	L	6	a240	0.45		0.4m	288	KAD02
2002 01 05.80		C	15.6	HS	30.0	L	6	a120	0.4	5	& 1.0m	295	EZA
2002 01 10.76		C	15.8	TJ	18.0	L	6	a180	0.3		0.4m	291	KAD02
2002 01 19.67		C	15.6	TJ	18.0	L	6	a180	0.45		0.6m	297	KAD02
2002 01 24.82		C	15.7	GA	60.0	Y	6	a120	0.5		2.7m	296	NAK01
2002 02 12.76		C	15.4	GA	60.0	Y	6	a120	0.55		3.3m	294	NAK01
2002 02 19.75		C	15.2	TJ	18.0	L	6	a240	0.55		1.5m	295	KAD02
2002 03 04.64		C	14.6	TJ	18.0	L	6	a120	0.55		0.6m	299	KAD02
2002 03 09.59	xa	C	15.1	HV	35.0	C	9	a840	0.4	5	0.8m	300	TSU02
2002 03 11.72		C	14.9	GA	60.0	Y	6	a120	0.75		5.0m	294	NAK01
2002 03 13.54	xa	C	14.8	HV	35.0	C	9	a120					TSU02
2002 03 15.69		C	14.9	TJ	18.0	L	6	a120	0.5		0.3m	270	KAD02
2002 04 01.54	xa	C	14.9	HV	35.0	C	9	a120	0.5	5	1.0m	296	TSU02
2002 04 07.58		C	15.2	TJ	18.0	L	6	a180	0.5		0.4m	293	KAD02

Comet 65P/Gunn [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 12.55		C	15.9	GA	60.0	Y	6	a120	0.5		3.0m	291	NAK01
2002 04 28.48		C	15.3	TJ	18.0	L	6	a120	0.55		0.5m	292	KAD02
2002 05 12.51	xa	C	15.1	HV	35.0	C	9	a600	0.3	5			TSU02
2002 05 12.52		C	15.0	GA	60.0	Y	6	a120	0.75		2.0m	298	NAK01
2002 06 02.49		C	15.5	TJ	18.0	L	6	a120	0.4				KAD02
2002 06 02.50	xa	C	15.3	HV	35.0	C	9	a480	0.5	4			TSU02
2002 06 05.53		C	15.1	GA	60.0	Y	6	a120	0.8				NAK01

Comet 67P/Churyumov-Gerasimenko

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 18.75		C	15.0	TJ	18.0	L	6	a 60	0.4				KAD02
2002 07 07.75		C	14.3	TJ	18.0	L	6	a270	0.55		0.8m	252	KAD02

Comet 74P/Smirnova-Chernykh

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 13.80	a	C	16.8	GA	60.0	Y	6	a240	0.4		1.2m	291	NAK01
2002 05 02.63		C	16.5	TJ	18.0	L	6	a240	0.3				KAD02
2002 05 19.66	a	C	15.9:	GA	60.0	Y	6	a240	0.5		2.4m	291	NAK01
2002 06 05.62		C	16.1	GA	60.0	Y	6	a120	0.4		2.4m	288	NAK01

Comet 77P/Longmore

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 05.82		C	17.3	HS	30.0	L	6	a120	0.3	4			EZA
2002 01 06.75		C	17.9:	TJ	18.0	L	6	a240	0.2				KAD02
2002 01 11.60	xa	C	17.6	HV	35.0	C	9	A200	0.3	3			TSU02
2002 01 19.76		C	17.2	TJ	18.0	L	6	a240	0.25				KAD02
2002 01 24.79		C	16.9	GA	60.0	Y	6	a240	0.5		1.4m	289	NAK01
2002 02 12.74		C	16.5	GA	60.0	Y	6	a120	0.4		1.0m	289	NAK01
2002 02 14.74		C	16.3	TJ	18.0	L	6	a240	0.35				KAD02
2002 03 06.71		C	15.9	TJ	18.0	L	6	a180	0.4				KAD02
2002 03 09.56	xa	C	16.0	HV	35.0	C	9	a600	0.3	5			TSU02
2002 03 13.54	xa	C	16.3	HV	35.0	C	9	a120					TSU02
2002 04 01.53	xa	C	16.1	HV	35.0	C	9	A200	0.3	5	0.8m	136	TSU02
2002 04 04.58		C	15.7	GA	60.0	Y	6	a120	0.65		1.0m	121	NAK01
2002 04 07.56		C	15.7	TJ	18.0	L	6	a180	0.4		0.3m	117	KAD02
2002 05 12.50	xa	C	15.5	HV	35.0	C	9	a120	0.3	5	1.0m	102	TSU02
2002 05 12.51		C	15.9	GA	60.0	Y	6	a120	0.55		1.1m	104	NAK01
2002 06 03.48	xs	C	16.1	HV	35.0	C	9	A680	0.3	3			TSU02
2002 06 05.52		C	16.0	GA	60.0	Y	6	a120	0.5		0.7m	105	NAK01

Comet 82P/Gehrels

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 19.74	!	k	19.7	LA	103.0	C	4	a240	0.15		0.1m	305	ORI
2002 03 08.56		C	20.3	GA	60.0	Y	6	a240	0.15				NAK01

Comet 92P/Sanguin

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 09.69		C	18.1	GA	60.0	Y	6	a240	0.25				NAK01

Comet 96P/Machholz

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 13.88	w	H	5.5:	LA	18.0	L	6	a 4	0.9				KAD02
2002 01 21.86		C	9.7	TJ	18.0	L	6	a120	1.3		6.5m	316	KAD02
2002 01 25.86		C	11.3	TJ	18.0	L	6	a120	1.1		2.6m	317	KAD02
2002 01 27.86		C	11.7	TJ	18.0	L	6	a120	1.0		3.4m	319	KAD02
2002 01 30.86		C	12.4	TJ	18.0	L	6	a240	0.8		3.2m	313	KAD02
2002 02 07.86		C	13.7	TJ	18.0	L	6	a360	0.7		1.2m	313	KAD02
2002 02 14.85		C	14.7	TJ	18.0	L	6	a360	0.6		0.8m	308	KAD02

Comet 107P/Wilson-Harrington

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 19.77		! k	20.3	LA	103.0	C	4	a240		9			ORI

Comet 110P/Hartley

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 24.83	a	C	19.7	GA	60.0	Y	6	a240	0.2				NAK01

Comet 115P/Maury

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.60		C	19.5	GA	60.0	Y	6	a240	0.2				NAK01
2002 05 19.63		C	19.3	GA	60.0	Y	6	a240	0.2				NAK01
2002 06 05.59		C	18.6	GA	60.0	Y	6	a240	0.25				NAK01

Comet 116P/Wild

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 03.47		C	15.8	TJ	18.0	L	6	a180	0.35				KAD02
2002 01 08.65		C	16.5	HS	30.0	L	6	a180	0.4	5			EZA
2002 01 12.45		C	16.1	TJ	18.0	L	6	a180	0.35				KAD02
2002 01 13.60		H	15.3	LA	30.0	L	6	a180	0.4	5/			EZA
2002 01 13.61		C	16.0	GA	60.0	Y	6	a120	0.6				NAK01
2002 02 06.48		C	16.2:	TJ	18.0	L	6	a240	0.3				KAD02
2002 02 18.49	x	C	16.6	HV	35.0	C	9	a540	0.3	5	0.6m	93	TSU02

Comet 124P/Mrkos

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 05.50		C	19.6	GA	60.0	Y	6	a240	0.2				NAK01
2002 02 01.47		C	19.9	GA	60.0	Y	6	a240		9			NAK01

Comet 125P/Spacewatch

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 12.85		C	18.0	TJ	30.0	L	6	a 60	0.3				EZA
2002 03 20.80	1	C[	16.0	HS	30.0	L	6	a 90					EZA
2002 04 01.80	1	C[	16.0	HS	30.0	L	6	a 90					EZA
2002 04 05.82	1	C[	17.2	HS	30.0	L	6	a 90					EZA

Comet 147P/Kushida-Muramatsu

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.66		C	19.8	GA	60.0	Y	6	a240	0.2				NAK01

Comet 152P/Helin-Lawrence

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 24.78		C	18.5	GA	60.0	Y	6	a240	0.3				NAK01
2002 03 11.76		C	18.4	GA	60.0	Y	6	a240	0.3				NAK01
2002 05 19.60		C	17.7	GA	60.0	Y	6	a240	0.25				NAK01
2002 06 05.58		C	17.8	GA	60.0	Y	6	a240	0.25				NAK01

Comet 153P/2002 C1 (Ikeya-Zhang)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 04.39		C	9.7	TJ	18.0	L	6	a120	2.4				KAD02
2002 02 06.39		C	8.9	GA	40.0	L	6	a 60	4.5		> 9.5m	83	AKA
2002 02 06.39	a	H	9.7	LA	50.0	C	12	A080	2.8	6	2.2m	96	FUK02
2002 02 06.40		C	9.3	TJ	18.0	L	6	a160	3.0				KAD02
2002 02 06.40	!	k	8.8	LA	103.0	C	4	a 60	3.5		> 2.5m	90	ORI
2002 02 06.42	a	V	9.9	LA	50.0	C	12	a360	2.8	6	2.2m	96	FUK02
2002 02 09.40		C	8.8	TJ	18.0	L	6	a160	4.0		>25 m	83	KAD02
2002 02 09.43	w	H	9.2	LA	30.0	L	6	a360	2.9	6	>0.07	90	EZA
2002 02 09.43	w	H	9.2	LA	30.0	L	6	a360	2.9	6	>0.07	90	EZA
2002 02 10.39	w	V	8.3	LA	50.0	C	12	a720	3.6	7	> 8.8m	83	FUK02

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 10.40	w	H	9.3	LA	50.0	C	12	A080	2.9	7	> 8.0m	86	FUK02
2002 02 10.41		C	8.8	TJ	18.0	L	6	a160	4.1		>24 m	86	KAD02
2002 02 11.42	a	H	8.9	LA	30.0	L	6	a360	3.7	6	>0.08	83	EZA
2002 02 14.40		C	8.2	GA	40.0	L	6	a 60	3		>10 m	84	AKA
2002 02 14.45	x	P	6.9	HV	10.0	R	4	a300		7			TAK05
2002 02 15.42		C	8.3	GA	40.0	L	6	a 60	3		>10 m	92	AKA
2002 02 20.42	a	V	7.2	LA	30.0	L	6	a360	3.1	6	10.8m	84	EZA
2002 02 20.43	a	H	8.1	LA	30.0	L	6	a360	2.9	6	>16 m	80	EZA
2002 02 22.40	w	H	7.3	LA	50.0	C	12	A080	5.2	7	> 9.1m	82	FUK02
2002 02 22.41	w	V	7.5	LA	50.0	C	12	a540	4.6	7	> 9.2m	77	FUK02
2002 02 24.40		C	7.1	TJ	18.0	L	6	a 30	4.8		>26 m	84	KAD02
2002 02 24.40	w	H	7.2	LA	50.0	C	12	a420	5.4	6	> 7.9m	85	FUK02
2002 02 24.41	w	V	7.3	LA	50.0	C	12	a120	4.3	6	> 9.4m	84	FUK02
2002 02 24.42	a	V	6.4	LA	30.0	L	6	a360	4.7	6	>16 m	80	EZA
2002 02 24.43	a	H	7.4	LA	30.0	L	6	a360	4.3	6	>16 m	80	EZA
2002 03 03.39		C	6.1:	TJ	18.0	L	6	a 30	3.9		7.5m	78	KAD02
2002 03 04.40	w	H	5.5	LA	50.0	C	12	a200	6.2	6	> 9.4m	75	FUK02
2002 03 04.41	w	V	5.8	LA	50.0	C	12	a180	5.8	6	> 8.8m	75	FUK02
2002 03 04.43	xa	C	5.8	HV	35.0	C	9	a 60					TSU02
2002 03 06.43	xa	C	5.4	HV	35.0	C	9	a 90					TSU02
2002 03 06.43	a	H	5.1	LA	30.0	L	6	a360	5.7	6	>18 m	77	EZA
2002 03 09.40	w	H	4.8	LA	50.0	C	12	a180	6.0	6	> 9.9m	70	FUK02
2002 03 09.40	w	V	5.0	LA	50.0	C	12	a225	4.3	6	> 9.8m	68	FUK02
2002 03 09.41		C	5.0	TJ	18.0	L	6	a 20	6.4		>26 m	72	KAD02
2002 03 09.43	a	V	4.9	LA	30.0	L	6	a180	4.4	6	>18 m	66	EZA
2002 03 09.43	x	C	4.9	TJ	8.0	R	6	a 30	9.7		>2.13	74	NAK01
2002 03 09.44	a	H	5.1	LA	30.0	L	6	a360	4.7	6	>18 m	66	EZA
2002 03 10.40	w	H	4.8	LA	50.0	C	12	a165	5.2	6	>10.0m	68	FUK02
2002 03 10.40	w	V	5.3	LA	50.0	C	12	a150	4.7	6	>10.1m	68	FUK02
2002 03 11.41		H	4.7	LA	40.0	L	6	a 20	4.0	6	>11 m	67	AKA
2002 03 11.41		V	5.0	LA	40.0	L	6	a 20	4.0	6	>11 m	67	AKA
2002 03 11.43	xa	C	5.1	HV	35.0	C	9	a 90				62	TSU02
2002 03 13.42	w	H	4.5	LA	50.0	C	12	a260	5.2	6	>11.4m	62	FUK02
2002 03 13.43	a	V	4.5	LA	30.0	L	6	a180	4.7	6	>18 m	64	EZA
2002 03 13.44	a	H	4.3	LA	30.0	L	6	a360	4.6	6	>18 m	64	EZA
2002 03 16.40		C	4.1	TJ	18.0	L	6	a 14	6.7		>32 m	61	KAD02
2002 03 17.41	a	H	3.7	LA	50.0	C	12	a420	5.1	6	> 7.8m	53	FUK02
2002 03 19.41	w	H	3.3	LA	50.0	C	12	a 72	6.2	6	> 8.6m	52	FUK02
2002 03 19.41	w	V	3.8	LA	50.0	C	12	a 66	5.7	6	> 8.3m	50	FUK02
2002 03 20.41	a	H	3.5	LA	50.0	C	12	a 60	6.5	6	> 8.4m	50	FUK02
2002 03 20.41	a	V	3.8	LA	50.0	C	12	a 60	5.7	6	> 8.1m	48	FUK02
2002 03 20.44	a	H	4.2	LA	30.0	L	6	a 60	4.8	6	>22 m	50	EZA
2002 03 30.42		C	3.8	TJ	18.0	L	6	a 10	6.8		>18 m	22	KAD02
2002 03 30.44		C	4.2	TJ	30.0	L	6	a120	5.2		>15 m	20	EZA
2002 04 04.80		C	4.1	TJ	18.0	L	6	a 20	9.8		>17 m	7	KAD02
2002 04 05.81		C	4.2	TJ	18.0	L	6	a 10	10.5		>19 m	3	KAD02
2002 04 12.78		C	4.2	TJ	30.0	L	6	a 60	6.9		>20 m	335	EZA
2002 04 17.12		C	5.1	HS	5.3	D	4	a 60	7.7	2	1.8	322	MOR09
2002 04 21.08		C	5.4	HS	5.3	D	4	a 60	8.5	0	1.1	299	MOR09
2002 04 25.01		C	5.1	HS	5.3	D	4	a 60	10.1	2	1.6	275	MOR09
2002 05 02.57	a	H	5.8	LA	50.0	C	12	a900	11.1	6	> 6.9m	244	FUK02
2002 05 02.65	a	V	5.4	LA	50.0	C	12	a900	12.5	6	> 7.6m	244	FUK02
2002 05 02.72	a	H	5.6	LA	50.0	C	12	a900	11.2	6	> 7.3m	244	FUK02
2002 05 02.91		C	5.6	HS	5.3	D	4	a 60	10.8	2	0.9	266	MOR09
2002 05 24.59		C	7.5	TJ	30.0	L	6	a 30	6.4				EZA
2002 05 29.53		C	8.6	TJ	30.0	L	6	a 30	3.7				EZA
2002 06 01.47		C	7.9	TJ	25.0	L	5	a240	7.0		13 m	290	KAD02
2002 06 02.53		C	8.5	TJ	30.0	L	6	a 30	4.1				EZA
2002 06 02.58		C	8.0	TJ	18.0	L	6	a240	9.5		15 m	292	KAD02
2002 06 02.58	xs	C	7.9	HV	35.0	C	9	a120	8	5			TSU02
2002 06 05.52		C	8.7	TJ	30.0	L	6	a 30	4.6				EZA
2002 06 06.68		C	8.2	TJ	25.0	L	5	a 30	7.9		20 m	296	KAD02
2002 06 09.50		C	8.2	TJ	25.0	L	5	a 30	10.0		>17 m	299	KAD02
2002 06 09.50		C	8.9	TJ	30.0	L	6	a 30	4.1				EZA
2002 06 18.50		C	9.6	TJ	30.0	L	6	a300	3.7		13 m	305	EZA

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 18.63		C	8.9	TJ	18.0	L	6	a 40	7.6		>28 m	302	KAD02
2002 07 06.51		C	10.7	TJ	18.0	L	6	a 60	4.1		>26 m	307	KAD02
2002 07 07.47		C	12.4	TJ	30.0	L	6	a 60	1.0				EZA
2002 07 11.51		C	10.7	TJ	30.0	L	6	a120	1.8				EZA

Comet C/1997 BA_6 (Spacewatch)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 09.73		C	17.4	GA	60.0	Y	6	a240	0.4				NAK01

Comet C/1999 J2 (Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 24.82	a	C	18.2	GA	60.0	Y	6	a240	0.25		0.6m	351	NAK01
2002 03 11.81		C	17.8	GA	60.0	Y	6	a240	0.35		1.6m	4	NAK01
2002 05 20.68	a	C	17.9	GA	60.0	Y	6	a240	0.25		2.0m	13	NAK01
2002 06 09.59		C	18.2	GA	60.0	Y	6	a240	0.3		1.9m	20	NAK01

Comet C/1999 K5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 11.59	a	C	16.3	GA	60.0	Y	6	a240	0.6		1.4m	186	NAK01
2002 02 06.53		C	16.4	TJ	18.0	L	6	a240	0.3				KAD02
2002 02 15.58	a	C	17.3	GA	60.0	Y	6	a240	0.35				NAK01

Comet C/1999 N4 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 13.78		C	18.8	GA	60.0	Y	6	a240	0.25			130	NAK01

Comet C/1999 T2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 26.85		C	16.9	TJ	18.0	L	6	a120	0.3				KAD02
2001 12 14.84		C	17.0	TJ	18.0	L	6	a180	0.35				KAD02
2002 01 24.84		C	16.1	GA	60.0	Y	6	a120	0.75				NAK01
2002 02 12.81	a	C	16.4	GA	60.0	Y	6	a120	0.6				NAK01
2002 02 24.74	a	C	16.3	GA	60.0	Y	6	a120	0.75				NAK01
2002 04 12.61	a	C	16.7	GA	60.0	Y	6	a240	0.5				NAK01

Comet C/1999 U4 (Catalina-Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 06.72		C	16.4	TJ	18.0	L	6	a180	0.3				KAD02
2001 11 27.85		C	16.1	TJ	18.0	L	6	a180	0.35				KAD02
2001 12 29.86		C	15.9	TJ	18.0	L	6	a180	0.3				KAD02
2002 01 04.82		C	16.1	TJ	18.0	L	6	a180	0.35				KAD02
2002 01 25.77		C	15.9	TJ	18.0	L	6	a180	0.4				KAD02
2002 02 07.81		C	15.9	TJ	18.0	L	6	a180	0.4				KAD02
2002 02 12.75		C	15.9	GA	60.0	Y	6	a120	0.7		2.4m	296	NAK01
2002 03 04.75		C	15.9	TJ	18.0	L	6	a180	0.3				KAD02

Comet C/2000 A1 (Montani)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 24.77		C	18.8	GA	60.0	Y	6	a240	0.25			260	NAK01
2002 02 15.64		C	18.6	GA	60.0	Y	6	a240	0.3			240	NAK01

Comet C/2000 B4 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 12.77		C	20.3	GA	60.0	Y	6	a240		9			NAK01
2002 03 09.64		C	20.1	GA	60.0	Y	6	a240		9			NAK01

Comet C/2000 K2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 19.56		C	16.8	TJ	18.0	L	6	a240	0.2				KAD02
2002 01 11.50		C	17.6	GA	60.0	Y	6	a120	0.45				NAK01

Comet C/2000 SV_74 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 01.39		C	14.0	TJ	18.0	L	6	a180	0.8				KAD02
2002 01 04.42		C	13.9	TJ	18.0	L	6	a180	0.7				KAD02
2002 01 06.46	x	C	14.0	HV	35.0	C	9	a 60	0.8	4			TSU02
2002 01 12.44		C	14.0	TJ	18.0	L	6	a180	0.75				KAD02
2002 01 13.46		C	13.7	GA	60.0	Y	6	a120	1.3				NAK01
2002 02 06.45		C	14.4	TJ	18.0	L	6	a180	0.6				KAD02
2002 02 12.42	xa	C	13.7	HV	35.0	C	9	A320					TSU02
2002 02 18.44	xa	C	14.2	HV	35.0	C	9	A840	0.6	4			TSU02
2002 03 04.43	xa	C	15.2	HV	35.0	C	9	a120	0.4	4			TSU02
2002 03 27.81		C	13.9	TJ	18.0	L	6	a120	0.65				KAD02
2002 05 02.71		C	14.1	TJ	18.0	L	6	a180	0.7				KAD02
2002 05 21.65		C	14.4	TJ	18.0	L	6	a150	0.9				KAD02
2002 06 04.72		C	14.6	TJ	25.0	L	5	a120	0.6				KAD02
2002 06 18.72		C	14.4	TJ	18.0	L	6	a120	0.9				KAD02

Comet C/2000 WM_1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 03.42	x	C	5.4	HV	8.6	R	4	a300			0.6	46	TSU02
2001 12 04.42	x	C	6.1	HV	8.6	R	4	a300			1.1	54	TSU02
2001 12 07.44	x	C	5.1	HV	8.6	R	4	a300			>1.7	55	TSU02
2001 12 08.45	x	C	6.4	HV	8.6	R	4	a300			0.7	57	TSU02
2001 12 10.40	x	C	6.2	HV	8.6	R	4	a300	13.0	5	1.3	60	TSU02
2001 12 14.40	x	C	6.7	HV	8.6	R	4	a300	12.0	5	1.2	65	TSU02
2002 02 17.86		C	6.7:	TJ	18.0	L	6	a 20	1.7		6.0m	227	KAD02
2002 02 19.85		C	6.5	TJ	18.0	L	6	a 20	3.4		15 m	225	KAD02
2002 02 22.86	w	H	6.4	LA	50.0	C	12	a130	5.2	5	>11.7m	234	FUK02
2002 03 08.83	a	H	7.5	LA	50.0	C	12	a840	4.0	6	> 9.9m	255	FUK02
2002 03 08.84	a	V	7.5	LA	50.0	C	12	a360	4.0	6	>10.4m	257	FUK02
2002 03 13.81	w	H	7.9	LA	50.0	C	12	a160	3.7	6	>10.4m	230	FUK02
2002 03 16.81	a	H	7.4	LA	50.0	C	12	D320	4.2	6	>11.3m	231	FUK02
2002 03 19.80	w	V	8.7	LA	50.0	C	12	a810	4.5	6	>12.6m	240	FUK02
2002 03 19.81	w	H	8.1	LA	50.0	C	12	B970	4.3	6	>10.3m	233	FUK02
2002 03 20.76		C	10.3	TJ	30.0	L	6	a150	0.7		1 m	225	EZA
2002 03 29.15		C	8.2	HS	5.3	D	4	a 60	0.8	4	19.0m	219	MOR09
2002 04 12.77		C	11.4	TJ	30.0	L	6	a300	0.5		1 m	250	EZA
2002 04 12.78	x	C	11.4	HV	35.0	C	9	a120	2.5	5	>12 m	235	TSU02
2002 04 17.11		C	10.4	HS	5.3	D	4	a 60	0.8	4	2.5m	278	MOR09
2002 04 21.04		C	10.3	HS	5.3	D	4	a 60	1.5	1			MOR09
2002 04 25.01		C	10.2	HS	5.3	D	4	a 30	1.1	1	7.5m	198	MOR09
2002 05 12.67	Ix	C	12.3	HV	35.0	C	9	a120	2.5		>12 m	217	TSU02
2002 05 18.56		C	12.8	TJ	18.0	L	6	a 90	0.8		4.0m	214	KAD02
2002 05 19.69		C	11.7	GA	60.0	Y	6	a120	2.9		> 8.9m	214	NAK01
2002 05 21.62		C	12.3	TJ	18.0	L	6	a120	1.8		>19 m	213	KAD02
2002 05 24.55		C	12.6	TJ	30.0	L	6	a 60	0.9		1.0m	225	EZA
2002 05 25.53		C	13.0	TJ	25.0	L	5	a 60	0.7		0.8m	208	KAD02
2002 06 01.48		C	13.8:	TJ	25.0	L	5	a 60	0.6				KAD02
2002 06 02.56		C	13.1	TJ	30.0	L	6	a 60	0.7				EZA
2002 06 02.64	xs	C	13.0	HV	35.0	C	9	a720	0.8	6	3.0m	193	TSU02
2002 06 05.53		C	13.4	TJ	30.0	L	6	a 60	0.5				EZA
2002 06 06.71		C	13.7	TJ	25.0	L	5	a120	1.0		8.0m	200	KAD02
2002 06 09.54		C	14.3	TJ	30.0	L	6	a120	0.4				EZA
2002 06 09.62		C	13.0	GA	60.0	Y	6	a120	1.9		> 5.9m	197	NAK01
2002 06 18.53		C	13.9	TJ	30.0	L	6	a 60	0.4		0.5m	180	EZA
2002 06 18.66		C	13.8	TJ	18.0	L	6	a120	1.1		>16 m	199	KAD02

Comet P/2000 Y3 (Scotti)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 11.66		C	18.4	GA	60.0	Y	6	a240	0.25		1.6m	292	NAK01
2002 02 07.62		C	18.3	GA	60.0	Y	6	a240	0.25		2.3m	290	NAK01

Comet C/2001 B2 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 23.85		C	17.1	TJ	18.0	L	6	a180	0.3				KAD02
2001 12 10.77		C	16.8	TJ	18.0	L	6	a240	0.4				KAD02
2002 01 04.72		C	16.7	TJ	18.0	L	6	a180	0.45				KAD02
2002 01 24.74		C	16.1	GA	60.0	Y	6	a120	0.65				NAK01
2002 02 12.70		C	16.0	GA	60.0	Y	6	a120	0.6				NAK01
2002 02 19.71		C	16.5	TJ	18.0	L	6	a240	0.45				KAD02
2002 03 09.53		C	16.6	TJ	18.0	L	6	a180	0.45				KAD02
2002 03 09.61		C	16.5	GA	60.0	Y	6	a120	0.45		0.9m	122	NAK01
2002 03 13.51	xa	C	16.4	HV	35.0	C	9	A680					TSU02
2002 04 04.53		C	16.8	GA	60.0	Y	6	a120	0.45		0.8m	119	NAK01

Comet C/2001 G1 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.58	a	C	17.7	GA	60.0	Y	6	a240	0.4			235	NAK01

Comet C/2001 HT_50 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 08.82		C	17.0:	TJ	18.0	L	6	a240	0.15				KAD02
2001 12 10.84		C	16.9	TJ	18.0	L	6	a240		9			KAD02
2001 12 22.79		C	16.6	TJ	18.0	L	6	a240	0.25				KAD02
2002 01 10.77		C	16.9	TJ	18.0	L	6	a180	0.25				KAD02
2002 01 13.80		C	16.7	TJ	18.0	L	6	a180	0.25				KAD02
2002 01 24.81	a	C	16.2	GA	60.0	Y	6	a240	0.5				NAK01
2002 01 25.75		C	16.2	TJ	18.0	L	6	a180	0.3				KAD02
2002 02 07.67	a	C	16.0	GA	60.0	Y	6	a120	0.45			45	NAK01
2002 02 07.77		C	15.8	TJ	18.0	L	6	a180	0.35				KAD02
2002 02 18.56	x	C	15.8	HV	35.0	C	9	a120	0.3	5			TSU02
2002 02 19.67		C	16.0	TJ	18.0	L	6	a180	0.35				KAD02
2002 03 04.70		C	15.9	TJ	18.0	L	6	a180	0.35				KAD02
2002 03 06.67		C	15.9	TJ	18.0	L	6	a180	0.4				KAD02
2002 03 09.58	xa	C	16.0	HV	35.0	C	9	a720	0.4	4			TSU02
2002 03 09.62	a	C	15.7	GA	60.0	Y	6	a120	0.4	8	0.5m	64	NAK01
2002 03 30.50		C	16.1	TJ	30.0	L	6	a720	0.5				EZA
2002 04 04.48	xa	C	15.6	HV	35.0	C	9	a720	0.4	5			TSU02
2002 04 04.56		C	15.6	GA	60.0	Y	6	a120	0.45				NAK01
2002 04 27.47		C	16.6	TJ	30.0	L	6	a360	0.3				EZA
2002 04 28.45		C	16.0	TJ	18.0	L	6	a120	0.35				KAD02
2002 05 12.48		C	15.7	GA	60.0	Y	6	a120	0.45			80	NAK01
2002 05 12.48	xa	C	15.3	HV	35.0	C	9	a120	0.3	5	1.0m	75	TSU02
2002 05 28.47	x	C	15.6:	TJ	60.0	Y	6	a120	0.45		0.6m	75	NAK01

Comet C/2001 K5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 13.78		C	15.7	TJ	18.0	L	6	a180	0.3				KAD02
2002 02 14.81		C	15.5	TJ	18.0	L	6	a180	0.35		0.4m	230	KAD02
2002 02 19.80		C	15.5	TJ	18.0	L	6	a180	0.35		0.6m	229	KAD02
2002 02 24.83		C	15.3	GA	60.0	Y	6	a120	0.55		1.0m	230	NAK01
2002 03 04.78		C	15.6	TJ	18.0	L	6	a180	0.4		0.5m	230	KAD02
2002 03 11.82		C	15.0	GA	60.0	Y	6	a120	0.5		1.8m	229	NAK01
2002 03 18.76		C	15.3	TJ	18.0	L	6	a180	0.45		0.6m	226	KAD02
2002 04 13.77		C	14.9	TJ	18.0	L	6	a120	0.45		0.8m	222	KAD02
2002 04 27.72		C	14.6	TJ	18.0	L	6	a120	0.4		0.8m	215	KAD02
2002 05 12.63		C	14.4	GA	60.0	Y	6	a120	0.55		3.0m	211	NAK01
2002 05 21.61		C	14.4	TJ	18.0	L	6	a120	0.55		1.5m	211	KAD02
2002 05 24.57		C	14.3	TJ	30.0	L	6	a300	0.55		1.6m	215	EZA
2002 05 29.56		C	14.3	TJ	30.0	L	6	a 60	0.5	8			EZA

Comet C/2001 K5 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 01.51		C	14.3	TJ	18.0	L	6	a 90	0.45		0.6m	207	KAD02
2002 06 01.63		C	14.3	GA	60.0	Y	6	a120	0.45		2.4m	202	NAK01
2002 06 02.54		C	13.7	TJ	30.0	L	6	a 60	0.5	8	1.4m	210	EZA
2002 06 02.62	s	C	14.3	HV	35.0	C	9	a720	0.3	5	1.5m	205	TSU02
2002 06 05.52		C	13.8	TJ	30.0	L	6	a 60	0.5	8	1.0m	210	EZA
2002 06 06.71		C	14.2	TJ	25.0	L	5	a120	0.5		1.2m	204	KAD02
2002 06 09.51		C	14.3	TJ	25.0	L	5	a 60	0.45		1.2m	199	KAD02
2002 06 09.52		C	14.2	TJ	30.0	L	6	a120	0.5	8	1.0m	210	EZA
2002 06 09.61		C	14.2	GA	60.0	Y	6	a120	0.6		3.1m	201	NAK01
2002 06 18.51		C	14.0	TJ	30.0	L	6	a300	0.4	9	1.7m	202	EZA
2002 06 18.64		C	14.2	TJ	18.0	L	6	a 90	0.5		1.0m	197	KAD02
2002 07 07.64		C	14.2	TJ	18.0	L	6	a120	0.5		1.1m	188	KAD02
2002 07 11.53		C	14.6	TJ	30.0	L	6	a240	0.4	8	0.8m	196	EZA
2002 07 11.54		C	14.3	GA	60.0	Y	6	a120	0.55		2.7m	191	NAK01

Comet P/2001 MD_7 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 04.38		C	13.4	TJ	18.0	L	6	a 90	0.65		1.6m	52	KAD02
2001 11 19.42		C	12.9:	TJ	18.0	L	6	a 90	0.6		0.4m	51	KAD02
2001 11 23.40		C	13.0	TJ	18.0	L	6	a120	0.9		0.7m	48	KAD02
2002 01 01.37		C	12.6	TJ	18.0	L	6	a 90	1.2		1.5m	56	KAD02
2002 01 03.40		C	12.7	TJ	18.0	L	6	a 90	1.4		2.0m	57	KAD02
2002 01 05.44	a	C	12.3	GA	60.0	Y	6	a120	2.7		3.2m	72	NAK01
2002 01 06.43	x	C	12.2	HV	35.0	C	9	a 60	1.0	5	4.0m	49	TSU02
2002 01 11.41	xa	C	13.5	HV	35.0	C	9	a120					TSU02
2002 01 12.39		C	12.8	TJ	18.0	L	6	a 90	1.1		1.5m	60	KAD02
2002 02 01.42		C	13.3	GA	60.0	Y	6	a120	1.6		2.4m	71	NAK01
2002 02 04.41		C	14.0:	TJ	18.0	L	6	a 90	0.7		1.0m	68	KAD02
2002 02 07.45	x	C	13.7	HV	35.0	C	9	A200	1.2	4	2.5m	70	TSU02
2002 02 09.45		C	13.8	TJ	18.0	L	6	a120	0.8		0.8m	73	KAD02
2002 03 06.45	x	C	14.7	HV	35.0	C	9	a960	0.5	3			TSU02
2002 03 09.45		C	15.2	TJ	18.0	L	6	a360	0.6				KAD02
2002 03 16.45		C	15.1	GA	60.0	Y	6	a120	0.75			75	NAK01
2002 04 04.45	xa	C	15.5	HV	35.0	C	9	a720	0.8	1			TSU02

Comet C/2001 N2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 04.45		C	16.7	TJ	18.0	L	6	a180	0.2				KAD02
2002 01 11.38	x	C	16.4	HV	35.0	C	9	a120	0.3				TSU02
2002 03 18.79		C	16.1	TJ	18.0	L	6	a120	0.25				KAD02
2002 04 05.77		C	16.0	TJ	18.0	L	6	a120	0.3				KAD02
2002 05 02.68		C	15.0	TJ	18.0	L	6	a180	0.5				KAD02
2002 05 12.71		C	14.8:	GA	60.0	Y	6	a120	0.55				NAK01
2002 05 20.72		C	14.7	GA	60.0	Y	6	a120	0.7				NAK01
2002 05 21.64		C	14.7	TJ	18.0	L	6	a150	0.55				KAD02
2002 05 24.61		C	15.0	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 02.60		C	15.1	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 04.67		C	14.6	TJ	25.0	L	5	a120	0.6				KAD02
2002 06 05.55		C	14.1	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 05.69		C	14.1	GA	60.0	Y	6	a120	1.0				NAK01
2002 06 09.56		C	13.5	TJ	30.0	L	6	a120	0.4				EZA
2002 06 15.63		C	13.9	TJ	30.0	L	6	a120	0.4				EZA
2002 06 18.55		C	14.7	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 18.67		C	14.0	TJ	18.0	L	6	a120	0.7				KAD02
2002 06 22.72		C	14.0:	GA	60.0	Y	6	a120	0.75				NAK01
2002 07 11.54		C	15.1	TJ	30.0	L	6	a240	0.4				EZA
2002 07 11.60		C	13.9	GA	60.0	Y	6	a120	1.1			65	NAK01

Comet C/2001 OG_108 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 08 27.75		C	18.0	GA	60.0	Y	6	a120		9			NAK01
2002 01 11.44	a	C	16.1	GA	60.0	Y	6	a 60	0.4	8	0.5m	230	NAK01

Comet C/2001 OG_108 (LONEOS) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 01.40	x	C	13.5	HV	60.0	Y	6	a 60	0.9		0.9m	220	NAK01
2002 02 06.40		C	13.5:	TJ	18.0	L	6	a 60	0.4				KAD02
2002 02 10.39		C	12.5	TJ	18.0	L	6	a 60	0.9				KAD02
2002 02 12.41	xa	C	12.5	HV	35.0	C	9	a420	0.5	4			TSU02
2002 02 14.84		C	12.2	TJ	18.0	L	6	a 60	1.2		1.0m	330	KAD02
2002 02 19.84		C	11.9	TJ	18.0	L	6	a 60	1.2		2.1m	341	KAD02
2002 02 24.84	xa	C	11.2	HV	35.0	C	9	a 60	1.2	5	5.5m	340	TSU02
2002 02 24.85	a	C	11.8:	GA	60.0	Y	6	a120	1.6		> 7.5m	340	NAK01
2002 03 04.80		C	11.6	TJ	18.0	L	6	a 90	1.1		5.1m	332	KAD02
2002 03 06.80		C	11.4	TJ	18.0	L	6	a 90	1.3		5.5m	328	KAD02
2002 03 13.77		C	11.8	TJ	18.0	L	6	a 90	0.9		2.3m	325	KAD02
2002 03 13.79	xa	C	12.0	HV	35.0	C	9	a120	0.8	5	3.0m	320	TSU02
2002 03 13.85	a	C	11.4	GA	60.0	Y	6	a120	1.8		8.2m	328	NAK01
2002 03 15.75		C	11.7	TJ	18.0	L	6	a 90	1.1		4.5m	324	KAD02
2002 03 18.78		C	11.7	TJ	18.0	L	6	a 60	1.0		4.1m	320	KAD02
2002 03 30.46		C	13.5	TJ	30.0	L	6	a360	0.6		1.8m	318	EZA
2002 04 01.74		C	13.2:	TJ	18.0	L	6	a 60	0.6		1.5m	311	KAD02
2002 04 04.91		C	10.0	HS	5.3	D	4	a 60	1.0	1			MOR09
2002 04 05.74		C	12.5	TJ	18.0	L	6	a 40	0.9		5.3m	315	KAD02
2002 04 13.51	a	C	12.2	GA	60.0	Y	6	a120	1.9		3.8m	84	NAK01
2002 04 21.13		C	11.2	HS	5.3	D	4	a 60	0.5	0			MOR09
2002 04 27.45		C	15.7	TJ	30.0	L	6	a720	0.3		1.5m	95	EZA
2002 04 28.46		C	15.4	TJ	18.0	L	6	a 60	0.3		0.8m	92	KAD02
2002 05 12.47		C	16.2	GA	60.0	Y	6	a120	0.4	8			NAK01
2002 05 12.47		c	16.5	GA	60.0	Y	6	a120					NAK01
2002 05 12.48	xa	C	15.4	HV	35.0	C	9	a120	0.4	4	> 1.2m	74	TSU02
2002 06 05.48		C	17.3	GA	60.0	Y	6	a120	0.2	8			NAK01

Comet P/2001 Q2 (Petriew)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 16.17		C	16.0	UO	57.0	P	5	a 90					TIC
2001 11 30.81		C	17.1	TJ	18.0	L	6	a180	0.25				KAD02
2001 12 22.78		C	17.6	TJ	18.0	L	6	a240	0.25				KAD02
2002 01 24.75	a	C	18.0	GA	60.0	Y	6	a240	0.3				NAK01
2002 02 07.64		C	17.8	GA	60.0	Y	6	a240	0.45				NAK01
2002 03 08.59	a	C	18.5	GA	60.0	Y	6	a240	0.25				NAK01

Comet C/2001 Q4 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 09 19.10	&	C	17.7	UO	57.0	P	5	a120					TIC
2002 01 05.47	x	C	18.1	TJ	60.0	Y	6	a240	0.25		0.3m	35	NAK01

Comet P/2001 Q5 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 19.50		C	17.2	TJ	18.0	L	6	a240	0.3				KAD02
2002 01 06.53	xa	C	18.6:	HV	35.0	C	9	a540					TSU02
2002 01 13.61		C	19.4	GA	60.0	Y	6	a240	0.25				NAK01

Comet P/2001 Q6 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 11.39		C	13.7	TJ	18.0	L	6	a120	0.95		0.7m	74	KAD02
2001 11 19.47		C	13.8	TJ	18.0	L	6	a120	0.8		0.8m	67	KAD02
2001 11 24.39		C	13.9	TJ	18.0	L	6	a120	0.65		0.4m	38	KAD02
2001 11 26.86		C	13.8	TJ	18.0	L	6	a120	0.75		0.7m	36	KAD02
2001 12 02.42		C	14.0	TJ	18.0	L	6	a120	0.45		0.4m	8	KAD02
2001 12 08.38		C	14.4	TJ	18.0	L	6	a120	0.4		0.5m	5	KAD02
2002 01 03.44		C	16.1	TJ	18.0	L	6	a180	0.35		0.3m	323	KAD02
2002 01 11.40	xa	C	15.7	HV	35.0	C	9	a480	0.3	3			TSU02
2002 01 25.80		C	16.5	TJ	18.0	L	6	a240	0.4				KAD02
2002 02 24.84	a	C	16.6:	GA	60.0	Y	6	a240	0.7				NAK01
2002 03 13.75		C	17.4	GA	60.0	Y	6	a240	0.6				NAK01

Comet P/2001 R1 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 19.43		C	16.5	TJ	18.0	L	6	a180	0.2				KAD02
2002 01 05.43	a	C	17.3	GA	60.0	Y	6	a120	0.25		0.5m	71	NAK01
2002 01 12.42		C	16.1:	TJ	18.0	L	6	a180	0.3				KAD02
2002 02 01.41		C	16.6	GA	60.0	Y	6	a120	0.35		0.8m	72	NAK01
2002 02 09.45	w	H	15.8	LA	30.0	L	6	a240	0.3	4/			EZA
2002 02 10.44		C	16.1	TJ	18.0	L	6	a180	0.35				KAD02
2002 02 15.45	x	C	16.3	HV	60.0	Y	6	a120	0.45		0.8m	70	NAK01
2002 03 09.44	a	C	16.6	GA	60.0	Y	6	a120	0.4		1.1m	72	NAK01

Comet P/2001 R6 (LINEAR-Skiff)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 13.47		C	19.0	GA	60.0	Y	6	a240	0.25				NAK01
2002 02 01.44		C	19.4	GA	60.0	Y	6	a240	0.2				NAK01

Comet C/2001 RX_14 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 10 19.83		C	17.2	UO	57.0	P	5	a 60					TIC
2001 11 19.52		C	17.7	TJ	18.0	L	6	a240		9			KAD02
2002 01 01.41		C	17.3	TJ	18.0	L	6	a180		9			KAD02
2002 01 03.42		C	17.2	TJ	18.0	L	6	a180		9			KAD02
2002 01 13.49		C	17.0	GA	60.0	Y	6	a240		9			NAK01
2002 02 07.44		C	16.6	GA	60.0	Y	6	a240		9			NAK01
2002 02 07.48	xa	C	15.9	HV	35.0	C	9	a840	0.3	3			TSU02
2002 02 10.44		C	16.3	TJ	18.0	L	6	a180		9			KAD02
2002 03 09.44	a	C	16.4	GA	60.0	Y	6	a240		9			NAK01
2002 06 18.73		C	15.3	TJ	18.0	L	6	a120	0.3				KAD02
2002 07 07.74		C	15.0	TJ	18.0	L	6	a120	0.3		0.3m	284	KAD02

Comet P/2001 T3 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 11.86		C	16.8	UO	57.0	P	5	a 90					TIC
2001 11 19.54		C	17.5	TJ	18.0	L	6	a240	0.25				KAD02
2002 01 11.47		C	17.4	GA	60.0	Y	6	a240	0.35			80	NAK01
2002 02 01.46		C	17.4	GA	60.0	Y	6	a240	0.35			80	NAK01
2002 02 01.47	x	C	17.4	HV	35.0	C	9	A040	0.3	4			TSU02

Comet C/2001 T4 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 11.48	a	C	19.7	GA	60.0	Y	6	a240	0.2				NAK01

Comet P/2001 TU_80 (LINEAR-NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 26.77		C	17.5	TJ	18.0	L	6	a240	0.2				KAD02
2001 12 26.74		C	17.1	TJ	18.0	L	6	a240	0.35				KAD02
2002 01 08.73		C	15.4	TJ	18.0	L	6	a120	0.6				KAD02
2002 01 10.69		C	15.5	TJ	18.0	L	6	a 90	0.5				KAD02
2002 01 11.55	x	C	15.3	HV	35.0	C	9	a120	0.4	5			TSU02
2002 01 11.64		C	14.8	GA	60.0	Y	6	a120	0.85			280	NAK01
2002 01 19.65		C	14.9	TJ	18.0	L	6	a 90	0.55			240	KAD02
2002 01 22.64		C	15.1	TJ	18.0	L	6	a 90	0.6		0.4m	248	KAD02
2002 02 01.55	x	C	14.9	HV	35.0	C	9	a120	0.5	5	0.8m	230	TSU02
2002 02 06.54		C	14.9	TJ	18.0	L	6	a180	0.55				KAD02
2002 02 06.61		C	15.0	GA	60.0	Y	6	a120	0.75				NAK01
2002 02 07.52	x	C	14.7	HV	35.0	C	9	a 60	0.5	5			TSU02
2002 02 10.50		C	15.5	TJ	18.0	L	6	a180	0.5				KAD02
2002 02 15.60		C	15.3	GA	60.0	Y	6	a120	0.8				NAK01
2002 02 18.53	x	C	15.4	HV	35.0	C	9	a120	0.6	5			TSU02
2002 03 08.55		C	16.0	GA	60.0	Y	6	a120	0.65			120	NAK01
2002 03 09.50		C	16.8	TJ	18.0	L	6	a180	0.3				KAD02
2002 03 09.54	xa	C	16.6	HV	35.0	C	9	a720	0.3	4			TSU02

Comet P/2001 TU_80 (LINEAR-NEAT) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 28.50	xa	C	15.6	HV	35.0	C	9	a360	0.5	3			TSU02
2002 04 01.51	xa	C	16.8	HV	35.0	C	9	B400	0.4	3			TSU02
2002 04 04.52		C	17.0	GA	60.0	Y	6	a120	0.5				NAK01

Comet C/2001 U6 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 11 03.81		C	17.6	UO	57.0	P	5	a120					TIC
2002 02 07.51	a	C	18.4	GA	60.0	Y	6	a240	0.25			65	NAK01

Comet C/2001 W1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 17.81		C	17.3	TJ	18.0	L	6	a180	0.2				KAD02
2002 01 11.58		C	18.2	GA	60.0	Y	6	a240	0.35		1.3m	116	NAK01

Comet C/2001 W2 (BATTERS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 15.38		H	13.2	HS	30.0	L	6	a 60	0.5	6	0.9m	20	EZA
2001 12 16.38	x	C	12.9	HS	35.0	C	9	a 60	0.5	4	2.5m	17	TSU02
2001 12 22.37		H	14.3	TJ	30.0	L	6	a 30	0.4	4/			EZA
2001 12 30.37		H	16.1	HS	30.0	L	6	a 20	0.4	3/			EZA

Comet P/2001 WF_2 (LONEOS)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 11.79		C	19.2	GA	60.0	Y	6	a240	0.25				NAK01
2002 04 12.65		C	19.7	GA	60.0	Y	6	a240	0.2				NAK01

Comet C/2001 X1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 22.82		C	14.8	TJ	18.0	L	6	a 90	0.8		0.9m	300	KAD02
2001 12 29.83		C	14.8	TJ	18.0	L	6	a120	0.8		0.7m	304	KAD02
2002 01 01.80		C	14.4	TJ	18.0	L	6	a480	1.0		1.8m	306	KAD02
2002 01 04.79		C	14.0	TJ	18.0	L	6	a120	0.8		3.7m	308	KAD02
2002 01 06.73		C	14.2	TJ	18.0	L	6	a120	0.8		11 m	313	KAD02
2002 01 08.76		C	14.2	TJ	18.0	L	6	a120	0.75		1.4m	318	KAD02
2002 01 10.74		C	14.3	TJ	18.0	L	6	a 90	0.7		0.7m	320	KAD02
2002 01 13.76		C	14.6	TJ	18.0	L	6	a 90	0.65		0.6m	325	KAD02
2002 01 19.71		C	14.8	TJ	18.0	L	6	a 90	0.45				KAD02
2002 01 22.67		C	15.1:	TJ	18.0	L	6	a 60	0.3				KAD02
2002 02 20.46	xa	C	16.5	HV	35.0	C	9	a300	0.4	3			TSU02

Comet P/2001 X2 (Scotti)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2001 12 14.98		C	18.6	UO	57.0	P	5	a 90					TIC
2002 01 11.62		C	18.2	GA	60.0	Y	6	a240	0.3				NAK01
2002 02 01.49		C	18.6	GA	60.0	Y	6	a240	0.3				NAK01

Comet P/2001 YX_127 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.52		C	20.0	GA	60.0	Y	6	a240	0.2				NAK01
2002 02 15.53	!	k	19.7	LA	103.0	C	4	a240		9			ORI

Comet C/2002 A1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 13.58		C	19.1	GA	60.0	Y	6	a240	0.2		0.5m	253	NAK01
2002 01 19.47		C	18.8	GA	40.0	L	6	a240	0.15		0.2m	254	AKA
2002 02 06.63		C	19.3:	GA	60.0	Y	6	a240	0.2				NAK01

Comet C/2002 A2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 13.59		C	18.4	GA	60.0	Y	6	a240	0.25	8	0.5m	249	NAK01
2002 01 19.45		C	18.0	GA	40.0	L	6	a240	0.2				AKA
2002 02 07.57		C	18.6	GA	60.0	Y	6	a240	0.2	8			NAK01

Comet C/2002 A3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 01 22.61		C	16.9	TJ	18.0	L	6	a240	0.25				KAD02
2002 02 01.50		C	16.8	GA	60.0	Y	6	a240	0.45		0.8m	242	NAK01
2002 02 09.60		C	16.7	GA	40.0	L	6	a180	0.2				AKA
2002 02 15.59	a	C	16.7	GA	60.0	Y	6	a120	0.35		0.8m	236	NAK01
2002 03 08.53	a	C	16.8	GA	60.0	Y	6	a120	0.4				NAK01

Comet C/2002 B1 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 12.45	xa	C	18.1	HV	35.0	C	9	a960					TSU02
2002 02 15.47		C	17.9	GA	60.0	Y	6	a240	0.25				NAK01

Comet C/2002 B2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 07.68	x	C	18.3	TJ	60.0	Y	6	a240	0.3				NAK01
2002 02 12.71	x	C	18.1	HV	60.0	Y	6	a240	0.25				NAK01
2002 03 08.58	a	C	18.2	GA	60.0	Y	6	a240	0.25			60	NAK01
2002 04 04.54	a	C	18.4	GA	60.0	Y	6	a240	0.25				NAK01

Comet C/2002 B3 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 15.48		C	19.4	GA	40.0	L	6	a180	0.1				AKA
2002 02 15.49	a	C	19.2	GA	60.0	Y	6	a240	0.2				NAK01

Comet P/2002 BV (Yeung)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.67	x	C	17.1	TJ	60.0	Y	6	a240		9			NAK01
2002 05 20.67	a	C	17.0	GA	60.0	Y	6	a120		9			NAK01
2002 06 01.61	a	C	17.1	GA	60.0	Y	6	a240		9			NAK01

Comet C/2002 C2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 02 06.45		C	17.0	TJ	18.0	L	6	a240	0.25				KAD02
2002 02 07.48		C	17.0	GA	60.0	Y	6	a120	0.3			45	NAK01
2002 02 15.51		C	17.2	GA	60.0	Y	6	a120	0.25			45	NAK01

Comet P/2002 CW_134 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 12.63	a	C	18.1	GA	60.0	Y	6	a240	0.3				NAK01
2002 05 12.56	x	C	19.0	TJ	60.0	Y	6	a240	0.25				NAK01

Comet C/2002 E2 (Snyder-Murakami)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 08.80	x	P	11.5	TJ	10.0	R	4	a275		4			TAK05
2002 03 12.75		C	12.8	TJ	18.0	L	6	a 60	1.0		1.4m	240	KAD02
2002 03 12.83		C	12.0	TJ	30.0	L	6	a 30	1.0	7			EZA
2002 03 13.78		C	12.0	TJ	18.0	L	6	a 60	1.4		2.5m	226	KAD02
2002 03 13.79		C	12.4	GA	40.0	L	6	a 30	1.0	5/	1.5m	240	AKA
2002 03 13.79	w	H	10.6	LA	50.0	C	12	A890	2.3	5	> 7.1m	208	FUK02
2002 03 13.83	xa	C	11.5	TT	35.0	C	9	a 60					TSU02
2002 03 13.84		C	11.1	GA	60.0	Y	6	a120	3.1		6.2m	219	NAK01
2002 03 15.81		C	11.7	TJ	18.0	L	6	a 60	1.8		3.0m	228	KAD02

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

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 16.76	a	H	10.6	LA	50.0	C	12	B970	1.9	6	> 8.1m	223	FUK02
2002 03 16.82		C	11.7	TJ	18.0	L	6	a 60	1.5		1.9m	228	KAD02
2002 03 18.83		C	11.4	TJ	18.0	L	6	a 60	1.6		2.8m	226	KAD02
2002 03 19.75	w	H	10.9	LA	50.0	C	12	A890	2.0	5	> 6.5m	209	FUK02
2002 03 19.77	w	V	11.8	LA	50.0	C	12	A080	1.8	5	> 6.5m	209	FUK02
2002 03 20.75		C	11.6	TJ	30.0	L	6	a 30	1.0	5			EZA
2002 03 20.77		C	11.6	TJ	18.0	L	6	a 60	1.3		1.2m	227	KAD02
2002 03 24.79		C	11.7	TJ	18.0	L	6	a 60	1.4		1.7m	229	KAD02
2002 03 27.76		C	12.0	TJ	18.0	L	6	a 60	1.3		1.5m	233	KAD02
2002 03 29.15		C	11.3	HS	5.3	D	4	a 60	0.9	0			MOR09
2002 04 01.76		C	12.1	TJ	18.0	L	6	a 60	0.8		0.7m	228	KAD02
2002 04 01.78		C	12.4	TJ	30.0	L	6	a 60	0.6				EZA
2002 04 04.74	xa	C	12.3	HV	35.0	C	9	a120	1.5	5			TSU02
2002 04 04.77		C	12.5	TJ	18.0	L	6	a 60	1.2		2.2m	222	KAD02
2002 04 05.75		C	12.4	TJ	18.0	L	6	a 60	1.3		3.6m	220	KAD02
2002 04 05.79		C	13.0	TJ	30.0	L	6	a 60	0.5				EZA
2002 04 12.76		C	12.3	TJ	30.0	L	6	a 60	0.5				EZA
2002 04 16.98		C	12.0	HS	5.3	D	4	a 60	1.1	2			MOR09
2002 05 02.61		C	12.8	TJ	18.0	L	6	a 90	1.2		9.0m	220	KAD02
2002 05 20.71		C	13.0	GA	60.0	Y	6	a120	2.2		7.0m	217	NAK01
2002 05 21.72		C	13.3	TJ	18.0	L	6	a 90	1.2		17 m	216	KAD02
2002 05 21.72		C	13.3	TJ	18.0	L	6	a 90	1.3		16 m	215	KAD02
2002 05 24.54		C	13.5	TJ	30.0	L	6	a 60	0.5				EZA
2002 05 24.75		C	13.6	TJ	18.0	L	6	a 90	1.2		8.7m	213	KAD02
2002 05 29.54		C	14.3	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 02.57		C	14.2	TJ	30.0	L	6	a 60	0.6				EZA
2002 06 02.67	xs	C	14.3	HV	35.0	C	9	a720	0.5	4			TSU02
2002 06 05.55		C	14.1	TJ	30.0	L	6	a 60	0.5				EZA
2002 06 05.65		C	13.6	GA	60.0	Y	6	a120	1.6		> 6.8m	197	NAK01
2002 06 09.57		C	14.4	TJ	25.0	L	5	a 90	0.7		12 m	190	KAD02
2002 06 09.57		C	14.7	TJ	30.0	L	6	a120	0.4				EZA
2002 06 18.60		C	14.7	TJ	18.0	L	6	a120	1.0		14 m	166	KAD02
2002 07 07.66		C	15.4	TJ	18.0	L	6	a180	0.6		0.7m	114	KAD02

Comet P/2002 EJ_57 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.50		C	19.5	GA	60.0	Y	6	a240	0.2				NAK01

Comet C/2002 F1 (Utsunomiya)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 03 20.82		C	10.0	TJ	18.0	L	6	a 40	2.0		8.0m	239	KAD02
2002 03 24.82		C	9.7:	TJ	18.0	L	6	a 30	1.1		0.8m	256	KAD02
2002 03 27.81		C	9.3	TJ	18.0	L	6	a 40	2.1		9.0m	243	KAD02
2002 03 29.18	&	C	8.0	HS	5.3	D	4	a 60	1.7	6	18.0m	254	MOR09
2002 03 30.82		C	8.6	TJ	30.0	L	6	a360	1.0		1 m	300	EZA
2002 04 01.81		C	8.7	TJ	18.0	L	6	a 40	1.3		6.1m	249	KAD02
2002 04 01.82		C	8.6	TJ	30.0	L	6	a120	2.0		9 m	248	EZA
2002 04 04.79		C	8.2	TJ	18.0	L	6	a 30	1.9		13 m	251	KAD02
2002 04 05.80		C	8.1	TJ	18.0	L	6	a 30	2.2		15 m	253	KAD02
2002 04 05.81		C	8.2	TJ	30.0	L	6	a180	1.7		10 m	250	EZA
2002 04 12.80		C	5.2	TJ	18.0	L	6	a 20	3.5		>24 m	318	KAD02
2002 04 12.82		C	5.6	TJ	30.0	L	6	a270	2.3		10 m	320	EZA
2002 04 13.80		C	5.3	TJ	18.0	L	6	a 30	3.0		>24 m	320	KAD02
2002 04 28.43		C	4.3	TJ	18.0	L	6	a 20	3.9		>17 m	4	KAD02
2002 04 29.44		C	4.5	TJ	18.0	L	6	a 20	4.2		>21 m	42	KAD02
2002 05 02.44		C	4.7	TJ	18.0	L	6	a 20	5.8		>25 m	45	KAD02
2002 05 12.45		C	7.5	TJ	30.0	L	6	a 20	1.0		2.0m	70	EZA

Comet C/2002 H2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 04 27.75		C	13.7	TJ	18.0	L	6	a 90	0.6				KAD02
2002 05 02.61		C	13.9	TJ	18.0	L	6	a 90	0.8				KAD02

Comet C/2002 H2 (LINEAR) [cont.]

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 12.56	xa	C	11.9	HV	35.0	C	9	a120	0.8	5			TSU02
2002 05 12.69		C	12.9	GA	60.0	Y	6	a120	2.1		2.9m	213	NAK01
2002 05 20.70		C	12.8	GA	60.0	Y	6	a120	2.6				NAK01
2002 05 21.71		C	13.7	TJ	18.0	L	6	a 90	1.0				KAD02
2002 05 24.60		C	14.7	TJ	30.0	L	6	a 60	0.4				EZA
2002 05 29.55		C	15.0	TJ	30.0	L	6	a 60	0.4	3			EZA
2002 06 02.58		C	14.7	TJ	30.0	L	6	a120	0.4				EZA
2002 06 02.60	xs	C	14.4	HV	35.0	C	9	a720	0.5	5			TSU02
2002 06 05.54		C	15.0	TJ	30.0	L	6	a 60	0.4				EZA
2002 06 05.66		C	14.1	GA	60.0	Y	6	a120	1.2				NAK01
2002 06 09.54		C	15.0	TJ	25.0	L	5	a 90	0.9				KAD02
2002 06 09.59		C	15.0	TJ	30.0	L	6	a120	0.4				EZA

Comet C/2002 J4 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 19.64		C	17.6	GA	60.0	Y	6	a240	0.35			240	NAK01
2002 06 01.60		C	17.6	GA	60.0	Y	6	a240	0.35				NAK01
2002 06 02.50		C	17.3	GA	40.0	L	6	a180	0.3	4/			AKA
2002 06 05.63		C	17.5	GA	60.0	Y	6	a240	0.35				NAK01
2002 06 09.59		C	17.6	TJ	25.0	L	5	a180	0.25				KAD02

Comet C/2002 J5 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 20.74		C	18.0	GA	60.0	Y	6	a240	0.25				NAK01

Comet P/2002 JN_16 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 01.58	a	C	17.1	GA	60.0	Y	6	a240	0.3	8			NAK01
2002 06 05.61		C	17.1	GA	60.0	Y	6	a240	0.3				NAK01
2002 06 09.60		C	17.2	TJ	25.0	L	5	a180	0.25				KAD02

Comet C/2002 K1 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 20.76	a	C	18.2	GA	60.0	Y	6	a240	0.25				NAK01
2002 06 05.74		C	18.3:	GA	60.0	Y	6	a240	0.2				NAK01
2002 06 09.72		C	17.8	GA	60.0	Y	6	a240	0.25			200	NAK01
2002 07 11.62		C	17.2	GA	60.0	Y	6	a240	0.3				NAK01

Comet C/2002 K2 (LINEAR)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 05 19.71		C	18.6	GA	60.0	Y	6	a240	0.25				NAK01
2002 06 05.68		C	18.5	GA	60.0	Y	6	a240	0.2				NAK01
2002 06 09.63		C	18.9	GA	60.0	Y	6	a240	0.2				NAK01
2002 07 11.61		C	18.6	GA	60.0	Y	6	a240	0.2				NAK01

Comet C/2002 K4 (NEAT)

DATE (UT)	N	MM	MAG.	RF	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
2002 06 05.69		C	16.9	TJ	30.0	L	6	a240	0.3				EZA
2002 06 06.74		C	17.2:	TJ	25.0	L	5	a180	0.25				KAD02
2002 06 09.71		C	17.1	GA	60.0	Y	6	a240	0.4				NAK01
2002 06 18.65		C	16.5	TJ	30.0	L	6	a120	0.4				EZA
2002 06 22.73		C	16.5:	GA	60.0	Y	6	a120	0.45			200	NAK01
2002 07 11.56		C	15.6	TJ	30.0	L	6	a120	0.4				EZA

◇ ◇ ◇

CORRIGENDA.

In the July 2001 issue, the footnotes at the bottom of pages 85 and 93 list the dates of the IWCA II incorrectly; they should, of course, both read "1999 Aug. 14-16".

Non-Visual Data (new format)

TABULATED NON-VISUAL DATA

The new format for non-visual data was introduced in the October 2001 issue of the *ICQ*, chiefly to help researchers make more sense of comet photometry obtained with CCD cameras, to determine what effects various instrumental factors play (spectral responses, exposure times, photometric aperture sizes, etc.). As described in that issue, almost all of the new information is added to the original observation records in columns 81-129, thereby leaving the first 80 columns essentially unchanged (except that in the "coma-diameter" column, read coma diameters are now given without exception in the new format; the old format allowed CCD users to put instead an aperture size in the "coma-diameter" column, but this is now allowed for in columns 87-93 of the new-format records).

Most of the columns below are as for the visual data (described on pages 147-148 of this issue). While electronic magnitudes *can* be submitted to 0.01 magnitude (as were the SOHO comet magnitudes listed earlier in this issue), for many reasons it is highly advised to continue giving total comet magnitudes only to 0.1 mag. Similarly, it is advised to continue giving all times to 0.01 day, as 0.001 day is usually unnecessary for cometary photometry.

Furthermore, as the stated uncertainty will generally not be that useful to researchers, and as readers are more likely to be interested in what CCD camera was employed for given photometry, we here replace the magnitude-uncertainty/error ("Unc") column from the SOHO data with the 3-character CCD-camera code ("Cam"). The option is left open in the future to interchange these and other columns, as may seem reasonable. Given the space limitations and the desire to continue with the same fonts and portrait-style printing, for the time being, we have elected to not print here the information about comparison stars in the same field or other fields, numbers of images of the comet obtained on the same night, the brightness of the comparison star nearest the comet in magnitude, and the pixel size.

The headings for the tabulated data are as follows: The date (UT), notes, magnitude method (including filters for CCDs, and "P" for photographs), magnitude, reference, instrument aperture, instrument type, instrument *f*-ratio, exposure time, coma diameter, degree of condensation, tail length and position angle, and observer are all as described for the visual tabulation. The column headed "APERTUR" gives the photometric aperture, preceded by "S" for square aperture and "C" for circular aperture, and followed by "d" for degrees, "m" for arcmin, and "s" for arcsec. The column "Chp" contains the 3-character code for the computer chip, given to indicate spectral response of the CCD camera. This column will also be used to indicate photographic emulsion when such information is provided for photographic photometry. The column "Sfw" contains the 3-character code for the software used to actually perform the photometric measures (not solely to extract comparison-star magnitudes). A lower-case "a" between these two columns indicates an anti-blooming CCD. The column headed "C" gives a number as follows: 0 = no correction; 1 = correction for bias (bias subtracted); 2 = flat-field corrected (flat-fielded); 3 = 1 + 2; 4 = dark-subtracted (and bias-subtracted) 5 = 2 + 4. The column headed "P" includes a P if the images used to measure the photometry were also measured for astrometry *and* those astrometric measures were published in the *Minor Planet Circulars* (meaning they were refereed); a U in this column indicates that the respective astrometric was sent to the MPC for publication but that either (a) they are unpublished at the time of reporting the photometry or (b) the observer is unaware of the publication status; a blank in this column indicates that no astrometry was measured.

◇ ◇ ◇

Comet 7P/Pons-Winnecke

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 03 23.12		C	16.6	U0	30.5	T	4	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet 16P/Brooks

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 06.00		C	16.4	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 22.03		C	16.7	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet 19P/Borrelly

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 28.16		c	14.4	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 01.94		c	15.0	U0	25.4	T	5	a 60					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 09.00		c	15.0	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 18.88		c	15.7	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	P	MX9	NAV01
2002 02 22.94		c	15.8	U0	25.4	T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 23.91		c	15.4	U0	25.4	T	5	a120					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 23.04		c	15.8	U0	30.5	T	4	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 04 18.86		C	16.1	U0	30.5	T	6	a120					S10.0	s	K26 AfP	5	U	ST9	NAV01
2002 06 11.89		C	17.6	U0	30.5	T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet 21P/Giacobini-Zinner

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 01 22.45		F	11.7	HS	25.4T		7	a 60					S 1.9 m	K40	A32	5	P	PIC	BR008

Comet 22P/Kopff

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 03 31.03		C	16.6	U0	30.5T		4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01

Comet 29P/Schwassmann-Wachmann

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 06 12.05		C	13.1	U0	30.5T		6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 16.02		C	14.2	U0	30.5T		6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 18.98		c	14.2	U0	30.5T		6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 19.98		c	14.5	U0	30.5T		6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 23.03		c	15.0	U0	30.5T		6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet 31P/Schwassmann-Wachmann

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 01 12.01		C	17.3	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 44P/Reinmuth

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 06.01		C	16.8	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 21.88		C	16.6	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 25.82		C	17.1	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 01 06.91		C	17.0	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 01 11.94		C	17.0	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 51P/Harrington

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 01 06.85		C	17.6	U0	25.4T		5	a300					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 01 11.89		C	17.4	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 51P/Harrington (component A)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 06.87		C	16.7	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 07.88		C	16.2	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 11.95		C	16.8	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 16.90		C	16.9	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 19.92		C	17.2	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 22.03		C	17.2	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 22.91		C	17.1	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 25.88		C	16.8	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 51P/Harrington (component B)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 06.87		C	16.9	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 51P/Harrington (component D)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 07.88		C	16.3	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 11.95		C	17.0	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 16.90		C	16.8	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 19.92		C	17.2	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 22.03		C	17.3	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 22.91		C	16.9	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 25.88		C	17.1	U0	25.4T		5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 62P/Tsuchinshan

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1998 03 16.38		F	13.9	HS	25.4T	7	a240	0.8	6			S 0.8 m	K40	A32	5	P	PIC	BR008
1998 03 19.37		F	13.3	HS	25.4T	7	a360	1.5	6			S 1.5 m	K40	A32	5	P	PIC	BR008

Comet 65P/Gunn

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 25.07		C	16.0	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 26.09		C	16.0	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 09.00		c	15.5	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 09.95		c	15.7	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 19.92		C	15.8	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 02 21.91		C	15.6	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 22.94		C	15.8	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 23.95		c	15.7	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 03.91		c	15.6	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 23.00		c	15.5	UO	30.5T	4	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 31.00		c	15.5	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 04 06.02		c	15.5	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 04 17.86		c	15.2	UO	30.5T	6	a 60					S10.0 s	K26	AfP	5	U	ST9	NAV01
2002 04 29.83		c	15.2	UO	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 19.86		C	16.0	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet 77P/Longmore

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2000 04 17.86		C	16.2	UO	30.5T	6	a 60					S10.0 s	K26	AfP	5	U	ST9	NAV01
2002 02 10.03		c	16.7	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 23.99		c	16.3	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 03.94		C	16.3	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 23.01		C	16.5	UO	30.5T	4	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 30.96		C	16.5	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 04 29.85		C	16.2	UO	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet 116P/Wild

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 06.04		C	16.6	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 19.88		C	16.0	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 22.94		C	17.0	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 01 06.02		C	16.6	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 01 19.87		C	16.4	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet 141P/Machholz

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2000 01 08.41		f	16.3	HS	25.4T	7	a 60	1.5	5			C 8 s	K40	A32	5	P	PIC	BR008

Comet 150P/LONEOS

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 04 23.43		F	17.7	HS	25.4T	7	a480					S15 s	K40	A32	5	P	PIC	BR008
2001 05 14.39		F	18.4	HS	25.4T	7	a480					S15 s	K40	A32	5	P	PIC	BR008

Comet 153P/2002 C1 (Ikeya-Zhang)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 02 02.77		c	12.7	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 03.41		f	14.7	HS	25.4T	7	a 60	3.0			80	C 8 s	K40	A32	5	P	PIC	BR008
2002 02 05.40		f	13.9	HS	25.4T	7	a 60	3.0				C 8 s	K40	A32	5	P	PIC	BR008
2002 02 07.78		c	11.2	UO	25.4T	5	a 3					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 12.39		F	8.6	HS	25.4T	7	a 40					S 1.9 m	K40	A32	5	P	PIC	BR008
2002 02 12.39		f	11.5	HS	25.4T	7	a 40					C 8 s	K40	A32	5	P	PIC	BR008
2002 02 23.79		c	9.1	UO	25.4T	5	a 30					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 03.87		c	8.6	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 04 05.81		c	8.2	UO	30.5T	4	a 5					S10.0 s	ICXaAfP		5	P	MX9	NAV01

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

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 04 20.08		c	9.7	U0	30.5T	6	a 10					S10.0 s	K26	AfP	5	U	ST9	NAV01
2002 04 29.91		c	10.2	U0	30.5T	7	a 5					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 12.87		c	11.1	U0	30.5T	7	a 5					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 13.91		c	11.1	U0	30.5T	7	a 5					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 14.91		c	11.3	U0	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 14.92		c	11.4	U0	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 23.88		c	11.4	U0	30.5T	6	a 10					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 25.83		c	12.1	U0	30.5T	6	a 10					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 31.96		c	12.3	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 08.86		c	12.4	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 14.86		c	12.8	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 17.90		c	12.8	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 18.89		c	12.8	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 22.86		c	13.1	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 24.87		c	13.4	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 25.92		c	13.4	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 26.90		c	13.8	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 30.90		c	14.1	U0	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 07 05.91		c	14.3	U0	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet C/1995 O1 (Hale-Bopp)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 01 26.48		F	10.2	HS	25.4T	7	a480					S 1.9 m	K40	A32	5	P	PIC	BR008
2000 11 23.60		f	17.0	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2000 11 23.61		F	14.7	HS	25.4T	7	a480	1.6	7	1.0m	5	S 1.6 m	K40	A32	5	P	PIC	BR008
2000 12 22.52		F	14.4	HS	25.4T	7	a480	1.8	7			S 1.8 m	K40	A32	5	P	PIC	BR008
2000 12 22.52		f	17.5	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2001 12 17.52		F	16.0	HS	25.4T	7	a480	1.4		1.0m	70	S 1.4 m	K40	A32	5	P	PIC	BR008
2001 12 17.52		f	18.0	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2002 01 18.42		f	17.9	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2002 01 18.43		F	16.5	HS	25.4T	7	a480					S 0.3 m	K40	A32	5	P	PIC	BR008

Comet C/1998 J1 (SOHO)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1998 05 29.33		F	7.0	HS	25.4T	7	a 60					S 1.9 m	K40	A32	5	P	PIC	BR008
1998 05 30.34		F	7.5	HS	25.4T	7	a 60					S 1.9 m	K40	A32	5	P	PIC	BR008
1998 05 31.34		F	7.7	HS	25.4T	7	a120					S 1.9 m	K40	A32	5	P	PIC	BR008
1998 06 04.35		F	7.8	HS	25.4T	7	a120					S 1.9 m	K40	A32	5	P	PIC	BR008
1998 06 10.35		F	8.5	HS	25.4T	7	a 30					S 1.9 m	K40	A32	5	P	PIC	BR008

Comet C/1999 E1 (Li)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 03 18.38		F	15.4	HS	25.4T	7	a360					S15 s	K40	A32	5	P	PIC	BR008
1999 04 12.35		F	15.6	HS	25.4T	7	a360					S15 s	K40	A32	5	P	PIC	BR008

Comet C/1999 F1 (Catalina)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 04 23.46		F	15.9	HS	25.4T	7	a480	0.3	4	0.4m	40	S 0.3 m	K40	A32	5	P	PIC	BR008
2001 11 13.71		F	15.7	HS	25.4T	7	a480	0.4	3			S 0.4 m	K40	A32	5	P	PIC	BR008
2001 11 13.71		f	16.5	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2002 01 17.58		f	17.3	HS	25.4T	7	a480					C 8 s	K40	A32	5	P	PIC	BR008
2002 01 17.59		F	15.9	HS	25.4T	7	a480	0.3	D3	0.5m	17	S 0.3 m	K40	A32	5	P	PIC	BR008

Comet C/1999 H1 (Lee)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 04 18.48		F	9.1	HS	25.4T	7	a 30	2.1	6	2.3m	32	S 1.9 m	K40	A32	5	P	PIC	BR008
1999 04 19.37		F	9.2	HS	25.4T	7	a 30					S 1.9 m	K40	A32	5	P	PIC	BR008
1999 04 21.45		F	9.4	HS	25.4T	7	a 30					S 1.9 m	K40	A32	5	P	PIC	BR008
1999 04 24.40		f	13.2	HS	25.4T	7	a 30	3.3	6	5.0m	63	C 8 s	K40	A32	5	P	PIC	BR008
1999 05 04.37		f	13.0	HS	25.4T	7	a 60	3.2	6		115	C 8 s	K40	A32	5	P	PIC	BR008

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

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 05 11.37		f	13.9	HS	25.4T	7	a 30	4.4	6		125	C 8	s	K40	A32	5	P	PIC	BRO08
1999 05 13.35		f	14.8	HS	25.4T	7	a 30	9.5	7		133	C 8	s	K40	A32	5	P	PIC	BRO08
1999 06 01.38		f	12.8	HS	25.4T	7	a 60	5.0	7		138	C 8	s	K40	A32	5	P	PIC	BRO08

Comet C/1999 J3 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 11 07.67		f	14.9	HS	25.4T	7	a120	4.6	5			C 8	s	K40	A32	5	P	PIC	BRO08
1999 12 05.46		F	14.4	HS	25.4T	7	a480					S 0.5	m	K40	A32	5	P	PIC	BRO08

Comet C/1999 K5 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2000 12 08.68		F	13.7	HS	25.4T	7	a360	0.8	4	3.6m	190	S 0.8	m	K40	A32	5	P	PIC	BRO08
2000 12 08.68		f	15.9	HS	25.4T	7	a360					C 8	s	K40	A32	5	P	PIC	BRO08
2000 12 18.53		F	13.6	HS	25.4T	7	a480	0.9	5	4.0m	189	S 0.9	m	K40	A32	5	P	PIC	BRO08
2000 12 18.54		f	16.0	HS	25.4T	7	a480					C 8	s	K40	A32	5	P	PIC	BRO08
2001 02 11.49		f	16.3	HS	25.4T	7	a360	0.7	4	4	m188	C 8	s	K40	A32	5	P	PIC	BRO08
2001 03 22.42		f	16.5	HS	25.4T	7	a360	0.5	4	4	m182	C 8	s	K40	A32	5	P	PIC	BRO08
2001 04 16.37		F	14.4	HS	25.4T	7	a240	0.3	4	3	m185	S 0.3	m	K40	A32	5	P	PIC	BRO08
2001 04 16.37		f	16.6	HS	25.4T	7	a240					C 8	s	K40	A32	5	P	PIC	BRO08
2001 12 13.65		F	17.8	HS	25.4T	7	a480	0.2		1	m200	S 0.2	m	K40	A32	5	P	PIC	BRO08
2002 01 17.57		F	17.2	HS	25.4T	7	a480					S15	s	K40	A32	5	P	PIC	BRO08

Comet C/1999 K8 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 13.61		F	17.4	HS	25.4T	7	a480	0.3				S 0.3	m	K40	A32	5	P	PIC	BRO08
2001 12 16.58		f	18.4	HS	25.4T	7	a480					C 8	s	K40	A32	5	P	PIC	BRO08
2001 12 16.60		F	17.2	HS	25.4T	7	a480	0.6	s7	0.5m	15	S 0.6	m	K40	A32	5	P	PIC	BRO08

Comet C/1999 N2 (Lynn)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 07 18.36		f	13.3	HS	25.4T	7	a 40	4.5	4			C 8	s	K40	A32	5	P	PIC	BRO08
1999 08 02.34		f	13.6	HS	25.4T	7	a 40	4.5	4			C 8	s	K40	A32	5	P	PIC	BRO08

Comet C/1999 S2 (McNaught-Watson)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 09 21.61		F	16.8	HS	25.4T	7	a360	0.3				S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 09 23.75		f	18.0	HS	25.4T	7	a480					C 8	s	K40	A32	5	P	PIC	BRO08
1999 09 23.78		F	16.7	HS	25.4T	7	a480	0.4	4			S 0.4	m	K40	A32	5	P	PIC	BRO08
1999 09 24.76		F	17.2	HS	25.4T	7	a480					S15	s	K40	A32	5	P	PIC	BRO08
1999 09 30.55		F	16.7	HS	25.4T	7	a360					S15	s	K40	A32	5	P	PIC	BRO08
1999 09 30.55		f	18.0	HS	25.4T	7	a360					C 8	s	K40	A32	5	P	PIC	BRO08
1999 10 04.75		F	16.9	HS	25.4T	7	a480	0.4	3			S 0.4	m	K40	A32	5	P	PIC	BRO08
1999 10 11.66		f	17.9	HS	25.4T	7	a480	0.4	4			C 8	s	K40	A32	5	P	PIC	BRO08
1999 10 19.66		F	16.2	HS	25.4T	7	a480	0.5	4			S 0.5	m	K40	A32	5	P	PIC	BRO08
1999 11 07.57		F	17.0	HS	25.4T	7	a480	0.3	4			S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 12 05.49		F	17.3	HS	25.4T	7	a480	0.3	4			S 0.3	m	K40	A32	5	P	PIC	BRO08
2000 02 05.43		F	17.4	HS	25.4T	7	a480	0.3				S 0.3	m	K40	A32	5	P	PIC	BRO08
2000 10 27.62		f	18.8	HS	25.4T	7	a480	0.5				C 8	s	K40	A32	5	P	PIC	BRO08
2000 12 22.50		F	18.1	HS	25.4T	7	a480	0.4				S 0.4	m	K40	A32	5	P	PIC	BRO08

Comet C/1999 T1 (McNaught-Hartley)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 10 09.63		F	16.4	HS	25.4T	7	a360	0.3	3	0.4m	315	S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 10 09.67		f	18.2	HS	25.4T	7	a360					C 8	s	K40	A32	5	P	PIC	BRO08
1999 10 11.60		f	17.6	HS	25.4T	7	a360	0.3	3	0.3m	320	C 8	s	K40	A32	5	P	PIC	BRO08
1999 10 19.62		F	16.4	HS	25.4T	7	a360	0.3	3	0.4m	338	S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 11 02.53		F	16.1	HS	25.4T	7	a240	0.3	3	0.4m	352	S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 11 07.65		F	15.8	HS	25.4T	7	a480	0.3	3			S 0.3	m	K40	A32	5	P	PIC	BRO08
1999 12 03.48		F	16.0	HS	25.4T	7	a480	0.3	3	0.6m	0	S 0.3	m	K40	A32	5	P	PIC	BRO08

Comet C/1999 T1 (McNaught-Hartley) [cont.]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
1999 12 05.50		F	15.6	HS	25.4T	7	a480	0.4	3	0.7m	5	S 0.4 m	K40	A32	5	P	PIC	BR008
2000 02 05.42		F	14.6	HS	25.4T	7	a480	0.4	3	0.3m	30	S 0.4 m	K40	A32	5	P	PIC	BR008
2000 11 24.73		f	13.5	HS	25.4T	7	a120	2.8	6		238	C 8 s	K40	A32	5	P	PIC	BR008
2000 12 22.73		f	12.9	HS	25.4T	7	a120	2.6	6		245	C 8 s	K40	A32	5	P	PIC	BR008
2000 12 30.75		f	13.3	HS	25.4T	7	a 60	3.0	6		260	C 8 s	K40	A32	5	P	PIC	BR008
2001 01 03.72		f	13.3	HS	25.4T	7	a 30					C 8 s	K40	A32	5	P	PIC	BR008

Comet C/1999 T3 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2000 12 22.48		F	18.1	HS	25.4T	7	a480	0.15S		0.3m	6	S 0.15m	K40	A32	5	P	PIC	BR008

Comet C/1999 U4 (Catalina-Skiff)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 04 05.93		C	16.7	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 04 19.96		C	16.4	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	U	ST9	NAV01
2002 06 19.88		C	17.5	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet C/1999 Y1 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 13.41		f	14.3	HS	25.4T	7	a240					C 8 s	K40	A32	5	P	PIC	BR008
2001 11 13.43		F	12.9	HS	25.4T	7	a480	1.2	7	4.9m	50	S 1.2 m	K40	A32	5	P	PIC	BR008

Comet C/2000 CT_54 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 07 31.68		F	15.2	HS	25.4T	7	a480	0.4	6			S 0.4 m	K40	A32	5	P	PIC	BR008
2001 11 13.45		f	16.0	HS	25.4T	7	a240					C 8 s	K40	A32	5	P	PIC	BR008
2001 11 13.46		F	14.7	HS	25.4T	7	a240	0.5	6	1.8m	205	S 0.5 m	K40	A32	5	P	PIC	BR008
2002 01 02.41		F	16.8	HS	25.4T	7	a360					S15 s	K40	A32	5	P	PIC	BR008

Comet C/2000 OF_8 (Spacewatch)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 04 23.76		F	17.6	HS	25.4T	7	a360	0.2	4			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 05 28.59		f	15.6	HS	25.4T	7	a120	0.15	4			C 8 s	K40	A32	5	P	PIC	BR008
2001 06 23.39		F	16.9	HS	25.4T	7	a120	0.15	5	0.7m	98	S 0.15m	K40	A32	5	P	PIC	BR008

Comet C/2000 SV_74 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 04 05.85		C	16.0	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01

Comet C/2000 W1 (Utsunomiya-Jones)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2000 11 28.44		f	14.6	HS	25.4T	7	a 30	3.0	3		158	C 8 s	K40	A32	5	P	PIC	BR008
2000 11 29.40		f	14.2	HS	25.4T	7	a 30		3			C 8 s	K40	A32	5	P	PIC	BR008
2000 11 30.39		f	14.1	HS	25.4T	7	a 30	3.5	4			C 8 s	K40	A32	5	P	PIC	BR008
2000 12 02.44		f	14.6	HS	25.4T	7	a 30	4.0	4		128	C 8 s	K40	A32	5	P	PIC	BR008
2000 12 04.44		f	13.9	HS	25.4T	7	a 30					C 8 s	K40	A32	5	P	PIC	BR008
2000 12 05.43		f	14.0	HS	25.4T	7	a 50					C 8 s	K40	A32	5	P	PIC	BR008
2001 02 05.76		f	18.3	HS	25.4T	7	a360		0			C 8 s	K40	A32	5	P	PIC	BR008

Comet C/2000 WM_1 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 13.56		f	13.0	HS	25.4T	7	a 60	6	S7			C 8 s	K40	A32	5	P	PIC	BR008
2001 11 24.83		c	10.7	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 11 28.83		c	10.6	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 11 29.83		c	10.4	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 01.82		c	11.1	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2001 12 02.79		c	11.3	UO	25.4T	5	a 5					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet C/2000 WM_1 (LINEAR) [cont.]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 03.88		c	11.1	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 05.84		c	11.3	UO	25.4T	5	a 5	0.7	7	20	m320	S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 06.81		c	11.3	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 07.85		c	11.8	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 08.82		c	11.7	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 09.80		c	11.7	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 13.51		f	12.1	HS	25.4T	7	a 20	7	S7		60	C 8	s	K40 A32	5	P	PIC	BR008
2001 12 17.42		f	12.1	HS	25.4T	7	a 20					C 8	s	K40 A32	5	P	PIC	BR008
2002 01 02.40		f	10.7	HS	25.4T	7	a 60	4			107	C 8	s	K40 A32	5	P	PIC	BR008
2002 01 09.43		f	10.4	HS	25.4T	7	a120	4.3			108	C 8	s	K40 A32	5	P	PIC	BR008
2002 02 08.77		f	10.1	HS	25.4T	7	a 30	2.5			223	C 8	s	K40 A32	5	P	PIC	BR008
2002 03 11.72		f	11.7	HS	25.4T	7	a 30	3.0			230	C 8	s	K40 A32	5	P	PIC	BR008
2002 03 23.17		c	11.4	UO	30.5T	4	a 60					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 31.11		c	11.4	UO	30.5T	4	a 30					S10.0	s	ICXaAfP	5	P	MX9	NAV01
2002 04 06.10		c	12.2	UO	30.5T	4	a 60					S10.0	s	ICXaAfP	5	P	MX9	NAV01
2002 04 20.06		c	13.6	UO	30.5T	6	a 60					S10.0	s	K26 AfP	5	U	ST9	NAV01
2002 04 29.94		c	13.7	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 12.90		c	14.3	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 14.92		c	13.7	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 24.91		c	14.6	UO	30.5T	6	a 10					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 25.97		c	14.4	UO	30.5T	6	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 31.87		c	14.3	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 14.94		c	14.4	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 17.88		c	14.4	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 18.92		c	14.4	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 22.95		c	14.6	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 24.89		c	14.8	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 30.89		c	15.0	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 07 05.85		c	15.3	UO	30.5T	6	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet C/2001 A2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 03 22.43		f	17.3	HS	25.4T	7	a360	3.0	S6			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 04.42		f	15.0	HS	25.4T	7	a120	6	S5			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 05.42		f	15.1	HS	25.4T	7	a120	5	S5			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 06.37		f	14.9	HS	25.4T	7	a120	5	S5			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 07.37		f	15.1	HS	25.4T	7	a120	5	S6			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 15.41		f	14.5	HS	25.4T	7	a240	8	S6			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 16.36		f	14.8	HS	25.4T	7	a240	8	S6		106	C 8	s	K40 A32	5	P	PIC	BR008
2001 04 18.41		f	14.2	HS	25.4T	7	a120	7	S6			C 8	s	K40 A32	5	P	PIC	BR008
2001 04 23.41		f	13.8	HS	25.4T	7	a 50					C 8	s	K40 A32	5	P	PIC	BR008
2001 04 28.39		f	13.1	HS	25.4T	7	a 50					C 8	s	K40 A32	5	P	PIC	BR008
2001 05 04.36		f	12.4	HS	25.4T	7	a120	8	D4			C 8	s	K40 A32	5	P	PIC	BR008

Comet C/2001 A2 (LINEAR) [component A]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 05 09.33		f	15.4	HS	25.4T	7	a 20					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 11.33		f	15.3	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 12.34		f	14.9	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 14.35		f	14.8	HS	25.4T	7	a 20					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 16.33		f	15.0	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 19.33		f	15.3	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008

Comet C/2001 A2 (LINEAR) [component B]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 05 09.33		f	14.7	HS	25.4T	7	a 20					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 11.33		f	11.9	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 12.34		f	12.6	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 14.35		f	12.3	HS	25.4T	7	a 20					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 16.33		f	12.1	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 19.33		f	12.1	HS	25.4T	7	a 50					C 5	s	K40 A32	5	P	PIC	BR008
2001 05 24.31		f	11.2	HS	25.4T	7	a 30					C 5	s	K40 A32	5	P	PIC	BR008

Comet C/2001 A2 (LINEAR) [component B] (cont.)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 06 17.81		f	12.0	HS	25.4T	7	a 20					C 5 s	K40	A32	5	P	PIC	BR008
2001 06 26.80		f	12.4	HS	25.4T	7	a 10					C 5 s	K40	A32	5	P	PIC	BR008
2001 06 30.72		f	12.5	HS	25.4T	7	a 10					C 5 s	K40	A32	5	P	PIC	BR008

Comet C/2001 B2 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 01 27.75		F	15.9	HS	25.4T	7	a120	0.2	5			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 02 22.54		F	15.6	HS	25.4T	7	a480	0.3	5			S 0.3 m	K40	A32	5	P	PIC	BR008
2001 03 11.59		F	16.0	HS	25.4T	7	a360	0.2	4			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 03 30.48		F	15.8	HS	25.4T	7	a240	0.3	5			S 0.3 m	K40	A32	5	P	PIC	BR008
2001 04 15.46		F	15.5	HS	25.4T	7	a240	0.3	4			S 0.3 m	K40	A32	5	P	PIC	BR008
2001 12 25.09		C	16.7	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 02 01.97		C	16.8	UO	25.4T	5	a180					S10.0 s	ICXaAfP		5	U	MX9	NAV01

Comet C/2001 C1 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 02 04.76		F	18.4	HS	25.4T	7	a360					S 0.2 m	K40	A32	5	P	PIC	BR008
2001 02 05.73		F	18.1	HS	25.4T	7	a360					S 0.2 m	K40	A32	5	P	PIC	BR008
2001 02 21.66		F	17.8	HS	25.4T	7	a480	0.15	5			S 0.15m	K40	A32	5	P	PIC	BR008
2001 02 22.64		F	17.5	HS	25.4T	7	a480	0.15	6	0.3m	340	S 0.15m	K40	A32	5	P	PIC	BR008
2001 03 29.70		F	17.8	HS	25.4T	7	a480	0.2	5			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 05 14.41		F	17.5	HS	25.4T	7	a480	0.3				S 0.3 m	K40	A32	5	P	PIC	BR008

Comet C/2001 G1 (LONEOS)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 04 03.49		F	18.3	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 04 15.44		F	18.4	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 04 18.46		F	18.3	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 04 28.42		F	17.7	HS	25.4T	7	a480	0.2	S			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 05 12.40		F	18.2	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008

Comet P/2001 H5 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 04 27.67		F	18.3	HS	25.4T	7	a360	0.15				S 0.15m	K40	A32	5	P	PIC	BR008
2001 05 02.65		F	17.7	HS	25.4T	7	a480	0.15	2	15	s330	S 0.15m	K40	A32	5	P	PIC	BR008
2001 05 14.42		F	18.6	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 05 26.47		F	19.0	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 06 26.41		F	19.5	HS	25.4T	7	a480					S 0.2 m	K40	A32	5	P	PIC	BR008

Comet C/2001 HT_50 (LINEAR-NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 12.85		C	16.0	UO	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet C/2001 K5 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 08 07.43		F	17.4	HS	25.4T	7	a240	0.1	8			S 0.1 m	K40	A32	5	P	PIC	BR008
2002 03 23.11		c	15.2	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	U	MX9	NAV01
2002 03 31.06		c	15.3	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 04 06.07		c	14.9	UO	30.5T	4	a120					S10.0 s	ICXaAfP		5	P	MX9	NAV01
2002 05 13.92		c	15.0	UO	30.5T	7	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 24.92		c	14.6	UO	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 05 31.96		c	14.3	UO	30.5T	6	a 30					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 14.93		c	14.0	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 18.91		c	13.9	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 06 22.96		c	14.6	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01
2002 07 01.87		c	14.5	UO	30.5T	6	a120					S10.0 s	K26	AfP	5	P	ST9	NAV01

Comet C/2001 M10 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 06 30.71		F	18.7	HS	25.4T	7	a360		s			S15	s	K40	A32	5	P PIC	BR008

Comet P/2001 MD7 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 07 27.39		F	15.2	HS	25.4T	7	a240	0.2	5			S 0.2 m	K40	A32	5	P	PIC	BR008
2001 08 07.42		F	15.2	HS	25.4T	7	a240	0.2	5	0.4m	70	S 0.2 m	K40	A32	5	P	PIC	BR008
2001 08 19.38		F	15.9	HS	25.4T	7	a360	0.2	5	0.6m	65	S 0.2 m	K40	A32	5	P	PIC	BR008
2001 11 13.42		F	11.7	HS	25.4T	7	a240	0.8	5	2.8m	70	S 0.8 m	K40	A32	5	P	PIC	BR008
2001 11 13.42		f	13.3	HS	25.4T	7	a240					C 8	s	K40	A32	5	P PIC	BR008
2001 12 06.76		c	14.5	UO	25.4T	5	a 30					S10.0	s	ICXaAfP		5	U MX9	NAV01
2001 12 16.76		c	14.2	UO	25.4T	5	a 30					S10.0	s	ICXaAfP		5	U MX9	NAV01
2001 12 22.77		c	14.6	UO	25.4T	5	a 60					S10.0	s	ICXaAfP		5	U MX9	NAV01
2002 01 02.42		f	15.3	HS	25.4T	7	a360	0.8		2.0m	50	C 8	s	K40	A32	5	P PIC	BR008
2002 01 06.80		c	15.4	UO	25.4T	5	a120					S10.0	s	ICXaAfP		5	U MX9	NAV01
2002 01 11.84		c	15.1	UO	25.4T	5	a120					S10.0	s	ICXaAfP		5	U MX9	NAV01
2002 01 17.40		f	16.3	HS	25.4T	7	a120					C 8	s	K40	A32	5	P PIC	BR008
2002 01 17.41		F	12.8	HS	25.4T	7	a120	0.8				S 0.8 m	K40	A32	5	P	PIC	BR008
2002 02 01.83		c	15.2	UO	25.4T	5	a 60					S10.0	s	ICXaAfP		5	U MX9	NAV01
2002 02 21.82		C	16.2	UO	25.4T	5	a180					S10.0	s	ICXaAfP		5	U MX9	NAV01

Comet C/2001 N2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 25.99		C	15.5	UO	30.5T	6	a 60					S10.0	s	K26	AfP	5	P ST9	NAV01
2002 06 01.99		C	15.6	UO	30.5T	6	a120					S10.0	s	K26	AfP	5	P ST9	NAV01
2002 06 14.96		c	15.0	UO	30.5T	6	a120					S10.0	s	K26	AfP	5	P ST9	NAV01
2002 06 22.98		C	15.3	UO	30.5T	6	a120					S10.0	s	K26	AfP	5	P ST9	NAV01
2002 07 01.89		c	14.9	UO	30.5T	6	a120					S10.0	s	K26	AfP	5	P ST9	NAV01

Comet C/2001 O2 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 07 30.69		F	18.1	HS	25.4T	7	a480	0.3	3			S 0.3 m	K40	A32	5	P	PIC	BR008

Comet C/2001 OG_108 (LONEOS)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 04 05.87		c	14.2	UO	30.5T	4	a 60					S10.0	s	ICXaAfP		5	P MX9	NAV01
2002 04 19.94		c	15.0	UO	30.5T	6	a 30					S10.0	s	K26	AfP	5	U ST9	NAV01
2002 04 21.83		c	14.7	UO	30.5T	6	a 30					S10.0	s	K26	AfP	5	U ST9	NAV01
2002 04 23.86		c	14.6	UO	30.5T	6	a 30					S10.0	s	K26	AfP	5	U ST9	NAV01
2002 04 28.85		c	14.8	UO	30.5T	7	a 30					S10.0	s	K26	AfP	5	P ST9	NAV01
2002 05 12.84		C	15.1	UO	30.5T	7	a 30					S10.0	s	K26	AfP	5	P ST9	NAV01

Comet C/2001 Q4 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 09 24.71		F	18.1	HS	25.4T	7	a480					S15	s	K40	A32	5	P PIC	BR008
2001 09 25.64		F	18.3	HS	25.4T	7	a480					S15	s	K40	A32	5	P PIC	BR008
2001 11 13.49		F	18.0	HS	25.4T	7	a480	0.2				S 0.2 m	K40	A32	5	P	PIC	BR008
2001 12 13.54		F	17.8	HS	25.4T	7	a480					S15	s	K40	A32	5	P PIC	BR008
2002 01 02.43		F	17.6	HS	25.4T	7	a480					S15	s	K40	A32	5	P PIC	BR008

Comet P/2001 R1 (LONEOS)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 09 17.49		F	18.2	HS	25.4T	7	a480	0.3				S 0.3 m	K40	A32	5	P	PIC	BR008
2001 09 24.48		F	18.2	HS	25.4T	7	a480					S15	s	K40	A32	5	P PIC	BR008

Comet C/2001 RX_14 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 24.81		C	16.8	UO	25.4T	5	a180					S10.0	s	ICXaAfP		5	U MX9	NAV01
2001 11 28.91		C	16.5	UO	25.4T	5	a180					S10.0	s	ICXaAfP		5	U MX9	NAV01

Comet C/2001 RX_14 (LINEAR) [cont.]

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 16.80		C	16.7	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 21.83		C	17.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 22.84		C	17.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 19.85		C	17.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet P/2001 T3 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 29.92		C	16.3	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 01.86		C	16.3	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 05.89		C	16.6	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet P/2001 TU_80 (LINEAR-NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 12.09		C	17.3	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 25.99		C	17.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 06.05		C	15.6	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 07.86		C	15.7	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 11.98		C	15.2	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 17.94		c	15.4	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 19.95		c	15.6	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 01.87		c	15.4	U0	25.4T	5	a 60					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 03.02		c	15.4	U0	25.4T	5	a 60					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 07.95		c	16.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 08.89		c	15.8	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 09.98		c	15.8	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 21.88		C	16.8	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 22.89		C	16.9	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 02.94		C	16.5	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 03.87		C	16.5	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet C/2001 W1 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 01 07.92		C	18.3	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet C/2001 W2 (BATTERS)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 11 23.72		c	14.3	U0	25.4T	5	a 30					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 11 29.76		c	14.1	U0	25.4T	5	a 30					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 01.74		c	14.2	U0	25.4T	5	a 30					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 06.73		c	13.5	U0	25.4T	5	a 30					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 07.73		c	12.2	U0	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet C/2001 X1 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2001 12 16.69		F	14.1	HS	25.4T	7	a240	1.5	6			S 1.5	m	K40 A32	5	P	PIC	BR008
2001 12 16.69		f	16.9	HS	25.4T	7	a240					C 8	s	K40 A32	5	P	PIC	BR008
2001 12 18.73		F	13.4	HS	25.4T	7	a360					S30	s	K40 A32	5	P	PIC	BR008
2001 12 25.14		c	14.9	U0	25.4T	5	a180	0.25		0.42	65	S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 26.12		c	15.0	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2001 12 28.23		c	15.1	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 06.12		c	15.6	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 09.72		F	14.3	HS	25.4T	7	a120	1.5		6	m310	S 1.5	m	K40 A32	5	P	PIC	BR008
2002 01 12.01		c	14.9	U0	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 17.66		F	14.6	HS	25.4T	7	a120	0.9	7			S 0.9	m	K40 A32	5	P	PIC	BR008
2002 01 17.66		f	17.3	HS	25.4T	7	a120					C 8	s	K40 A32	5	P	PIC	BR008
2002 02 03.49		F	15.2	HS	25.4T	7	a 60					S15	s	K40 A32	5	P	PIC	BR008
2002 02 03.49		f	17.1	HS	25.4T	7	a 60					C 8	s	K40 A32	5	P	PIC	BR008
2002 03 03.42		f	17.1	HS	25.4T	7	a240					C 8	s	K40 A32	5	P	PIC	BR008
2002 03 03.43		F	14.2	HS	25.4T	7	a240	0.5		6	m 81	S 0.5	m	K40 A32	5	P	PIC	BR008
2002 04 07.39		F	17.6	HS	25.4T	7	a360					S15	s	K40 A32	5	P	PIC	BR008

Comet C/2002 A2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 01 12.92		C	17.4	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 01 17.88		C	18.0	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet C/2002 A3 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 02 01.86		C	17.1	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 07.78		C	11.9	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 21.85		C	17.1	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 03.83		c	8.6	UO	25.4T	5	a 5					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 04.46		F	18.2	HS	25.4T	7	a240					S15	s	K40 A32	5	P	PIC	BR008

Comet C/2002 B2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 03 11.46		F	19.1	HS	25.4T	7	a360					S15	s	K40 A32	5	P	PIC	BR008

Comet P/2002 BV (Yeung)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 06 19.92		C	16.3	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet C/2002 C2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 02 04.89		c	15.9	UO	25.4T	5	a120					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 02 17.80		C	16.9	UO	25.4T	5	a180					S10.0	s	ICXaAfP	5	U	MX9	NAV01

Comet C/2002 E2 (Snyder-Murakami)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 03 23.14		c	14.1	UO	30.5T	4	a 60					S10.0	s	ICXaAfP	5	U	MX9	NAV01
2002 03 31.14		c	14.1	UO	30.5T	4	a 30					S10.0	s	ICXaAfP	5	P	MX9	NAV01
2002 04 06.09		c	14.2	UO	30.5T	4	a 60					S10.0	s	ICXaAfP	5	P	MX9	NAV01
2002 04 20.03		c	14.3	UO	30.5T	6	a 60					S10.0	s	K26 AfP	5	U	ST9	NAV01
2002 04 29.92		c	14.6	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 12.88		c	14.7	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 14.92		c	14.6	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet C/2002 H2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 12.89		c	15.5	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 14.92		C	16.2	UO	30.5T	7	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 25.92		C	14.9	UO	30.5T	6	a 30					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 05 31.85		C	15.3	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 16.00		C	15.9	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet C/2002 J4 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 06 01.89		C	17.3	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 08.91		C	17.3	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 14.92		C	17.4	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet C/2002 J5 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP. T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 26.05		C	18.2	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 02.01		C	18.2	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 11.97		C	18.0	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01
2002 06 15.92		C	17.8	UO	30.5T	6	a120					S10.0	s	K26 AfP	5	P	ST9	NAV01

Comet P/2002 JN_16 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 31.93		C	16.7	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 06 11.87		C	16.9	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01

Comet C/2002 K2 (LINEAR)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 05 26.02		C	18.2	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 06 01.05		C	18.5	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 06 15.01		C	18.5	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 06 18.94		C	19.1	U0	30.5T		6	a180					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 06 23.00		C	18.5	U0	30.5T		6	a180					S10.0	s	K26	Af	P	5 P ST9	NAV01
2002 07 01.91		C	18.8	U0	30.5T		6	a180					S10.0	s	K26	Af	P	5 P ST9	NAV01

Comet C/2002 K4 (NEAT)

DATE (UT)	n	M	MAG.	RF	AP.	T	f/	EXP.	COMA	DC	TAIL	PA	APERTUR	Chp	Sfw	C	P	Cam	OBS.
2002 06 02.03		C	17.2	U0	30.5T		6	a120					S10.0	s	K26	Af	P	5 P ST9	NAV01

Φ Φ Φ

2001, 2002 Edgar Wilson Awards

The 2001 and 2002 Edgar Wilson Awards for the amateur discovery of comets was announced on *IAU Circulars* 7652 and 7926, respectively. Two amateur astronomers received the award in 2001 for finding C/2000 W1: Albert Francis Arthur Lofley Jones, Stoke, Nelson, New Zealand; and Syogo Utsunomiya, Minami-Oguni machi, Aso-gun, Kumamoto-ken, Japan. This year, seven individuals received the award: Vance Avery Petriew, Regina, SK, Canada, for P/2001 Q2; Kaoru Ikeya, Mori, Shuchi, Shizuoka, Japan, and Daqing Zhang, Kaifeng, Henan province, China, for C/2002 C1; Douglas Snyder, Palominas, AZ, U.S.A., and Shigeki Murakami, Matsunoyama, Niigata, Japan, for C/2002 E2; Syogo Utsunomiya, Minami-Oguni, Aso, Kumamoto, Japan, for C/2002 F1; William Kwong Yu Yeung, Benson, AZ, U.S.A., for P/2002 BV. The Edgar Wilson Award was explained in these pages in the July 1998 issue (*ICQ* **20**, 111).

Φ Φ Φ

DESIGNATIONS OF RECENT COMETS

Listed on page 220, for handy reference, are the last 50 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.

Not included below are numerous recently-discovered comets observed only with the SOHO spacecraft — and seen only close to the sun with the SOHO instruments — most of which are presumed to be no longer in existence. Earlier lists and references to such comets appeared in the January 2002 issue (p. 41) and references therein. In addition to the long-known Kreutz sungrazing group(s), and the Meyer and Marsden groups noted in the January issue (p. 41), there has also been found another group of near-sun comets by R. Kracht (*IAUC* 7952). Recent SOHO discoveries were reported on *IAUC* 7935, 7936, 7948, 7951, 7952, 7956, 7963, 7969, 7975, 7984, 7986, 7991, and 8000, and include the following comets (Kreutz unless noted 'Me' for Meyer group, 'Ma' for Marsden group, 'Kt' for Kracht group, or * for no apparent membership in either of these four groups): C/2001 C7 (Me), D1 (*), K11 (Me), L10 (Me), L11, Q8 (Kt), R7 (Me), R8 (Kt), R9 (Kt), V6 (Me), and X10 (Me); and C/2002 H7, H8 (Me), K8, K9, K10, M3, M4, M5, M6, M7, M8, N1, N2 (Kt), O1, O2, O3, P2, P3 (Me), Q6 (*), Q7, Q8 (Kt), Q9 (*), Q10 (Kt), Q11, Q12, Q13, Q14, R1 (Ma), R4 (Ma), R5 (Ma), R6, R7, R8 (Me), S2, S3, S4 (Kt), S5 (Kt), S6, S7 (Kt), S8, S9, S10, S11 (Kt), T2 (Me), T3, and U1. Contrary to what appeared on the January 2002 issue, C/2000 C7 is a member of the Marsden group.

[This list updates those in the January 2002 issue, p. 41, and the April 2002 issue, p. 92. For explanation regarding new usage of 'C/' instead of 'P/' for intermediate-period comets, see editorial note on page 2 of the January 2000 issue.]

DESIGNATIONS OF RECENT COMETS

[cont. from page 219]

	New-Style Designation	*P*	*T*	*q*	*IAUC*
#	11P/2001 X3 (Tempel-Swift-LINEAR)	6.37	12/30/01	1.58	7778
⋆	C/2002 A1 (LINEAR)	77.7	12/3/01	4.71	7788
⋆	C/2002 A2 (LINEAR)	76.6	12/9/01	4.71	7788
	152P/2001 Y1 (Helin-Lawrence)	9.52	12/22/02	3.11	7790
⋆	C/2002 A2 (LINEAR)		4/24/02	5.15	7799
#	153P/2002 C1 (Ikeya-Zhang)		3/18/02	0.51	7812
⋆	C/2001 OG_{108} (LONEOS)	48.5	3/15/02	0.99	7814
⋆	C/2002 C2 (LINEAR)		4/10/02	3.25	7815
⋆	C/2002 B1 (LINEAR)	31.2	4/20/02	2.27	7817
⋆	C/2002 B2 (LINEAR)		4/6/02	3.84	7821
⋆	C/2002 B3 (LINEAR)		1/14/02	6.05	7826
⋆	P/2001 WF_2 (LONEOS)	5.01	1/29/02	0.98	7827
⋆	P/2001 YX_{127} (LINEAR)	8.54	3/6/03	3.42	7828
⋆	C/2002 E2 (Snyder-Murakami)		2/21/02	1.47	7850
⋆	C/2002 F1 (Utsunomiya)		4/22/02	0.44	7854
⋆	P/2002 CW_{134} (LINEAR)	6.84	2/28/02	1.84	7858
⋆	P/2002 AR_2 (LINEAR)	12.4	1/16/02	2.06	7869
⋆	C/2002 H2 (LINEAR)		3/23/02	1.63	7883
⋆	C/2000 S5		10/27/00	0.6	7885
⋆	P/2002 EJ_{57} (LINEAR)	16.5	12/19/01	2.64	7890
⋆	P/2002 BV (Yeung)	6.59	3/11/02	2.24	7896
⋆	C/2002 J4 (NEAT)		10/3/03	3.63	7899
⋆	C/2002 K1 (NEAT)		6/16/02	3.23	7902
⋆	C/2002 J5 (LINEAR)		9/19/03	5.73	7904
⋆	C/2002 K2 (LINEAR)		1/6/02	5.24	7904
⋆	P/2002 JN_{16} (LINEAR)	6.50	7/27/02	1.79	7907
⋆	C/2002 K4 (NEAT)	73.4	7/12/02	2.76	7909
⋆	C/2002 L9 (NEAT)		4/6/04	7.03	7931
⋆	C/2002 O4 (Hönig)		10/1/02	0.78	7939
⋆	P/2002 O5 (NEAT)	4.98	8/3/02	1.17	7942
⋆	C/2002 O6 (SWAN)		9/9/02	0.49	7944
⋆	C/2002 O7 (LINEAR)		9/22/03	0.90	7949
⋆	P/2002 O8 (NEAT)	8.1	5/8/02	3.23	7949
⋆	C/2002 P1 (NEAT)		11/24/01	6.53	7950
⋆	P/2002 Q1 (Van Ness)	6.65	7/15/02	1.52	7956
⋆	C/2002 Q2 (LINEAR)		8/18/02	1.31	7960
⋆	C/2002 Q3 (LINEAR)		8/19/02	1.31	7960
	154P/2002 Q4 (Brewington)	10.7	2/19/03	1.59	7961
⋆	C/2002 Q5 (LINEAR)		11/19/02	1.24	7962
	155P/2002 R2 (Shoemaker)	17.1	12/14/02	1.81	7969
⋆	C/2002 R3 (LONEOS)		6/13/03	3.87	7970
⋆	P/2002 S1 (Skiff)	8.14	3/25/02	2.31	7972
⋆	P/2002 T1 (LINEAR)	6.68	10/8/02	1.19	7983
#	54P/2002 T4 (de Vico-Swift-NEAT)	7.31	7/30/02	2.14	7991
⋆	P/2002 T5 (LINEAR)	18.5	6/29/03	3.93	7998
⋆	C/2002 U2 (LINEAR)		12/31/02	1.21	8000
⋆	P/2002 T6 (NEAT-LINEAR)	21.1	6/26/03	3.39	8002
⋆	C/2002 T7 (LINEAR)		4/23/04	0.62	8003
⋆	C/2002 V1 (NEAT)		2/18/03	0.10	8010
⋆	C/2002 V2 (LINEAR)		5/6/03	6.82	8013