THE INTERNATIONAL COMET QUARTERLY

JULY 1979 VOL. 1, NO. 3

EPHEMERIS FOR COMET BRADFIELD (1979c) (see page 29)

DATE	ET	R. A. (1950)	DECL.	DELTA	R	ELONG.	PHASE	MAG.
1979	08 05	07 45.90	+38 33.3	1.168	0.517	26.2	60.1	8.5
1979	08 07	07 40.35	+39 45.4					
1979	08 09	07 34.71	+40 55.6	1.080	0.587	32.4	67.6	8.9
1979	08 11	07 28.92	+42 05.2					
1979	08 13	07 22.88	+43 15.2	0.987	0.662	38.6	72.8	9.2
1979	08 15	07 16.47	+44 26.9					
1979	08 17	07 09.52	+45 41.5	0.889	0.739	45.2	76.3	9.4
1979	08 19	07 01.84	+47 00.2					
1979	08 21	06 53.13	+48 24.2	0.790	0.817	52.2	78.0	9.6
1979	08 23	06 43.02	+49 54.7					
1979	08 25	06 30.98	+51 32.6	0.691	0.894	59.9	78.1	9.7
1979	08 27	06 16.25	+53 18.6					
1979	08 29	05 57.77	+55 12.1	0.594	0.971	69.0	76.2	9.7
1979	08 31	05 33.99	+57 10.1					
1979	09 02	05 02.83	+59 05.1	0.504	1.047	80.0	71.7	9.7
1979	09 04	04 21.82	+60 40.5					
1979	09 06	03 29.40	+61 26.4	0.427	1.121	93.9	63.8	9.7
1979	09 08	02 27.64	+60 40.6					
1979	09 10	01 24.03	+57 45.9	0.374	1.195	111.2	51.8	9.6
1979	09 12	00 27.5	+52 36.8					
1979	09 14	23 42.36	+45 46.5	0.358	1.267	130.2	37.4	9.8
1979	09 16	23 08.13	+38 08.4					
1979	09 18	22 42.50	+30 32.7	0.386	1.338	144.5	25.8	10.2
1979	09 20	22 23.15	+23 33.5					
1979	09 22	22 08.35	+17 26.4	0.451	1.409	148.5	21.9	10.8
1979	09 24	21 56.85	+12 13.8					
1979	09 26	21 47.79	+07 51.1	0.541	1.478	144.6	23.1	11.4
1979	09 28	21 40.57	+04 11.2					
1979	09 30	21 34.77	+01 06.9	0.647	1.546	138.3	25.5	11.9
1979	10 02	21 30.08	-01 28.3					
1979	10 04	21 26.28	-03 39.8	0.762	1.613	132.0	27.4	12.5
1979	10 06	21 23.20	-05 31.9					
1979	10 08	21 20.70	-07 08.0	0.883	1.679	126.2	28.7	13.0

NOTE: The above ephemeris and magnitudes could be substantially in error.

INSIDE THIS ISSUE

FROM THE EDITOR

The ICQ is now being produced smoothly, as the Staff is quite organized and the method for collecting and tabulating observations continues to improve. The circulation of this publication has increased in the past 3-4 months as never before, consistent with our change in format.

With this issue come some minor changes in the format of publishing observations of comets (see p. 31). We ask that, whenever possible, observers use the report form found on page 30 of this issue. This is to enable the ICQ Staff to be more efficient in its collecting of data.

Since the ICQ is non-profit, it is ideal for the Staff to optimize its available time by channeling efforts into the more important project of processing observational data. To enhance this, we will no longer be informing subscribers of the expiration of subscriptions, except for those who request billing by invoice. Those who do so request will be charged an annual invoicing charge of $3.00, which has been in effect since June 1, 1979. Other subscribers must keep track of expiration dates; we are attempting to put the expiration issue number on address labels.

With this issue we announce the beginning of a new class of subscribers called "Supporting Contributors," at the annual rate of $10.00. This idea was initially suggested by several subscribers a year ago, but it was not seriously considered by the Staff until recently. We are making extensive use of the computing facilities at the Harvard-Smithsonian Center for Astrophysics, and there is considerable cost involved in this. Those who send more than the annual amount should explicitly state which rate is requested.

Especially helpful to the compilation of the ICQ project has been the recent work of Vivien Dietz, Center for Astrophysics.

Daniel W. E. Green (Cambridge, Mass.) 1979 July 9

The International Comet Quarterly is a non-profit journal devoted to news and observation of comets. Issues are published 4 times per year (January, April, July, and October); the ICQ is published by the Physics Department of Appalachian State University, and is mailed from Boone, North Carolina. Regular subscriptions are $3.00 per year ($5.00 per year outside North America); annual invoicing charge is $3.00 additional. Supporting contribution subscriptions are $10.00 per year. Make checks payable to the *International Comet Quarterly* and send to the Editor at 721 S. Elmwood Ave.; Oak Park, IL 60304, U.S.A. All cometary observations should be sent to C. S. Morris; Prospect Hill Rd.; Harvard, MA 01451, U.S.A. Back issues may be obtained by writing to Dr. T. L. Rokoske; Physics Dept.; A.S.U.; Boone, NC 28608, U.S.A.

This issue is No. 31 of the publication originally called *The Comet*, founded in March 1973, and is Vol. 1, No. 3, of the *ICQ*.

THE DUTCH COMET SECTION

The Dutch Comet Section (DCS) was founded in February 1976, largely inspired by the forthcoming appearance of Comet West 1976 VI. Since then, observations have been made of Comets West, P/d'Arrest (1976 XI), Kohler (1977 XIV), P/Wild 2 (1978b) and Meier (1978f).

The DCS currently has about 25 members, and it emphasizes making visual magnitude estimates to enable formulae calculations when sufficient numbers of observations are available. Attention is being given to photography, especially of the fainter comets such as P/Encke and P/Tuttle during their favorable 1980 returns.

Three members, including the undersigned, are preparing a book on comets, and we are looking for good comet photographs, especially those of periodic comets and the less-spectacular parabolic comets. Groups or individuals interested in exchanging observational data, photographs, etc., or willing to make their photographs available for our book are requested to contact me at the following address: Beijenstraat 56, 6521 ED Nijmegen, The Netherlands.

Reinder J. Bouma
Chairman, Dutch Comet Section

ΨΨΨΨΨΨΨΨΨΨΨΨΨΨΨΨΨΨ

NEWS OF RECENT COMETS

William A. Bradfield of Dernancourt (near Adelaide), Australia, discovered his 9th comet on 1979 June 24.42 UT to become the most prolific comet hunter in history in the Southern Hemisphere. Bradfield's record exceeds that of William Reid, who found eight comets at Cape Town, South Africa, in the period from 1918 to 1927, according to Dr. B. G. Marsden. Bradfield also ranks fourth in the world today among living comet hunters who have a large number of discoveries. The first comet discovered by Bradfield was Comet 1972 III, and since then his name has gone on Comets 1974 III, 1975 V, 1975 XI, 1976 IV, 1976 V, 1978c, and 1978o. Also interesting is the fact that all nine comets bear his name alone; nobody else has shared a comet with Bradfield.

Bradfield's comet was the third to be discovered or recovered in 1979, and was given the provisional designation 1979c. Comet Bradfield was of total magnitude 10 at discovery in the constellation Hydra (IAU Circular No. 3372). M. P. Candy, Perth Observatory in Australia, has computed a rough orbit for Comet 1979c based on observations by David Herald of Kambah, Australia (IAUC 3375). As only 4 observations are available at this writing (from 3 different nights), more accurate positions are urgently needed. From the rough orbit, Comet Bradfield appears to have a parabolic orbit with a high inclination (135°) and a perihelion distance of about 0.4 A.U. The orbital elements call for a perihelion date around July 23. On page 27 of this issue is an ephemeris for the comet for August and September. The comet appears to be heading northward, and may be an 8th or 9th magnitude object for easy viewing in August as it moves from Gemini into Auriga, before turning southward into Pegasus in September. It must be remembered, however, that since the ephemeris is based upon only 4 observations, it could indeed be off by quite a bit. More up-to-date information concerning changes in Comet Bradfield's orbit can be found (Cont. on page 45)

COMET OBSERVING REPORT FORM. Send completed sheets to INTERNATIONAL COMET QUARTERLY, c/o C. S. Morris, Prospect hill Road, Harvard, MA 01451, U.S.A. PLEASE PRINT OR TYPE ONLY. Also, please convert observing times to decimals of a day (e.g., Aug. 3, 12:00 UT = Aug. 3.50 UT).

Xerox this sheet for more copies.

Name and designation of comet: COMET_____ 19____.

Observer_____ Address_____

Date (U.T.)	Total Magn.	Ref.	Instrument Aperture	Instr. Type	Power	Coma Diameter	D.C.	Tail length, p.a., remarks

(Explanation on page 31)

OBSERVATIONS OF RECENT COMETS

Pages 32 to 42 of this issue contain observational data of comets observed since 1977. The key to observers as printed here is the entire current list, but it will not be published more frequently than once a year. Additions and revisions will be published as needed, however. Similarly, the references used for magnitude estimates are published in this issue, but will not be given often. Observers are requested to use the observing report form on page 30 whenever possible (see below).

Observer designations have been permanently changed to have 3 letters and 2 numbers, due to the large number of observers expected with this project. The 3 letters contain the first 3 letters of an observer's last name; numbers from 01 to 99 appear after the 3 letters only when there are observers with the same first 3 letters.

Otherwise, the format remains the same as for the last issue.

This issue contains many observations of Comet Kohler by the Japanese group Hoshino Hiroba, and other observations made by observers reporting to the Comet Section of the British Astronomical Association.

OBSERVATION REPORT FORM

On page 30 of this issue is a report form for observers of comets. The Staff of the *ICQ* requests that observers and readers send observations printed or typed out on this form. Copies can be made easily by Xeroxing. The format presented in the table is the same as that used in our computer-collecting of observations in machine-readable form. It would also be appreciated if only one sheet is used for each comet.

The sheet should be self-explanatory, but some notes are added here. We ask that observers record times in in Universal Time (U.T.); it is extremely awkward and time-consuming for anyone to try to convert observing times for people in other parts of the world who simply put "10:30 p.m."

The "Total Magn." is the estimated total visual magnitude, and "Ref." is the reference used for the magnitude estimate. The code for references found elsewhere in this issue is preferred (p. 41). The code for instrument type is also preferred (e.g., L = reflector, B = binoculars, etc.). "D.C." is the degree of condensation.

Special note: The instrument details given should be for the magnitude estimate; if the other observations at the same time (e.g., of the coma, tail, etc.) are made with other instruments, special note should be made.

The subject of a nuclear magnitude (m_2) tends to be rather ambiguous, and the *ICQ* will hold a policy of not publishing such estimates. The question too often arises as to whether or not the observer is actually seeing the nucleus, or if he is indeed actually seeing a tight condensed glow which is part of the coma.

It is preferred that, when using the Comet Observing Report Form, the coma diameter be given in minutes of arc, and that tail length be given in degrees (to hundredths of a degree, if necessary, for short tails).

This journal welcomes drawings for possible publication, and observers who do send drawings are requested to make them dark for reproduction purposes; pencil is usually too light for photo-offset. The printing process as it currently stands does not have the necessary resolution for good reproduction of photographs, but eventually, over a course of time, we may be able to do more in this area. Questions will be handled by the Editor.

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TUK	06	HIROSHI TUKUMASU, JAPAN
UCH	06	MAKOTO UCHIUZO, JAPAN
UCH01	06	TOSHIKO UCHIDA, JAPAN
UOM	06	KAZUHISA UOMI, JAPAN
USV	01	A. USVAROSY, HUNGARY
VER		A. VERVEER, PERTH OBS., AUSTRALIA
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WAS	06	SHINSHO WASHI, JAPAN
WEI	05	DAVID D. WEIER, WI, U.S.A.
WES	05	JOHN WEST, TX, U.S.A.
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YAN	06	TETSUO YANAKA, JAPAN
YAS	06	MASANORI YASUGI, JAPAN
YOS	06	SHIGERU YOSHIDA, JAPAN
YOU	05	JAMES W. YOUNG, CA, U.S.A.

NOTE: THE FULL KEY TO OBSERVERS, AS LISTED ABOVE, WILL NOT BE PUBLISHED MORE FREQUENTLY THAN ONCE A YEAR. ANY NEW ADDITIONS OR REVISIONS WILL BE INCLUDED IN EACH ISSUE, HOWEVER.

* *

KEY TO SOURCES

01	THE ASTRONOMER
04	TONIGHT'S ASTEROIDS
05	COMETS SECTION, ASSN. OF LUNAR AND PLANETARY OBSERVERS
06	HOSHINO HIROBA, JAPAN
07	COMET SECTION, BRITISH ASTRONOMICAL ASSOCIATION
08	MPC'S (MINOR PLANETS AND COMETS), I.A.U.
09	COMET SECTION, ROYAL ASTRONOMICAL SOC. OF NEW ZEALAND
10	BEOBACHTUNGEN, EDITED BY M. GROSSMANN, GRONAU, W. GERMANY

COMET KOHLER (1977 XIV = 1977M)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1977 09 15.55	9.2		10	L		25	6				ISH
1977 09 15.55	9.1		10	L		25	6	3			SUZ01
1977 09 16.42	9.4		12	B		20	4	5			YAN
1977 09 16.43	9.5		10	L		24	5	4			SAT
1977 09 16.43	9.4		6.5	R		13					HAS01
1977 09 16.43	9.0		6.5	R		13	7	3			KIK
1977 09 16.44	9.5		5	R		28	3	2			HOT
1977 09 16.45	9.4		5	R		7	5				ICH
1977 09 16.45	9.3		16	L		40	6	4			IWA
1977 09 16.47	9.5		10	L		25	4	4			OSA
1977 09 16.48	9.7		12	B		20	6				FUR
1977 09 16.48	10.5		12	B		20	2				OKA
1977 09 16.50	9.2		6	R		59	4	4			NAK01
1977 09 16.51	9.8		12	L		26	6				OKA01
1977 09 16.52	9.5		10	L		25	5	4			UCH
1977 09 16.52	9.4		10	L		25	5	3			KIK
1977 09 16.53	9.1		10	L		25	8	3			OKA02
1977 09 16.53	9.6		10	L		25	6	5			UCH01
1977 09 17.41	9.6		12	L		33	3	4			SAK
1977 09 17.44	9.1		16	L		40	7	5			IWA
1977 09 17.44	9.7		15	L		28	4	3			MIT
1977 09 17.45	9.0		15	L		38	7	2			SEI
1977 09 17.46	9.5		6.5	R		30	4	3			TAN
1977 09 17.47	9.1		10	L		40		7			HAS01
1977 09 17.47	10.0		10	L		55					TSU
1977 09 17.48	9.2		10	L		40		4			SUZ01
1977 09 17.48	9.2		10	L		40	6	4			OKA02
1977 09 17.49	9.3		10	L		24	8	4			SAT
1977 09 17.51	9.5		15	L		28	4	3			NAK
1977 09 18.49	9.5		16	L		25	8	4			SAT
1977 09 18.49	9.5		12	B		20	4				OKA
1977 09 19.46	9.5		10	L		25	4	3			OSA
1977 09 20.43	9.2		12	L		20	4	5			YAN
1977 09 20.50	9.5		12	B		20	2				FUR
1977 09 20.52	9.2		15	L		23	3	2			SUZ
1977 09 24.47	9.6		12	L		33	6	4			SAK
1977 09 27.40	8.8		5	B		6	4				SAK
1977 09 29.50	8.7		5	B		7					ARI
1977 09 30.42	8.8		6.5	R		30	4	4			TAN
1977 09 30.46	8.7		6	R		36	5	4			NAK01
1977 09 30.47	8.8		8	B		46	7	3			ARI
1977 10 01.40	8.8		12	B		20	5	5			YAN
1977 10 01.42	8.8		5	B		6	3				SAK
1977 10 04.42	8.8		6.5	R		30	3	4			TAN
1977 10 04.43	8.0		21	L		33	4	4			SUZ
1977 10 04.43	7.8		15	L		38	6	5			SEI
1977 10 04.44	7.8		6	R		36	6	4			NAK01

COMET KOHLER (1977 XIV = 1977M) CON'T.

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1977 10 04.48	9.0		25	L		62	5				UOM
1977 10 04.49	8.3		12	B		20	4				OKA
1977 10 05.41	8.6		12	B		20	7				FUR
1977 10 05.41	8.0		15	L		28	5	4			MIT
1977 10 05.42	7.6		5	B		6	6				SAK
1977 10 05.42	7.8		15	L		38	6	4			SEI
1977 10 05.43	8.6		12	B		20	4	4			YAN
1977 10 05.44	8.1		12	L		33	9	4			SAK
1977 10 05.45	8.7		15	L		28	4				KAN
1977 10 06.40	8.1		15	L		28	5	3			MIT
1977 10 06.43	8.7		12	B		20	4	5			YAN
1977 10 06.43	8.3		12	L		33	8	4			SAK
1977 10 06.45	7.9		5	B		6	5				SAK
1977 10 06.46	9.0		10	L		56	4				HOT
1977 10 08.42	8.5		10	L		25	3	6			OSA
1977 10 08.45	7.9		6	R		36	6	5			NAK01
1977 10 08.46	8.8		10	R		56	6				HOT
1977 10 08.50	8.7		12	B		20	4				OKA
1977 10 09.40	7.5		10	L		20	5	3			IDA
1977 10 09.43	8.8		10	L		20	3				TUK
1977 10 09.43	7.6		6.5	R		20	3	4			MAK
1977 10 09.45	8.7		15	L		335		5			IMA
1977 10 09.48	8.0		10	L		55	5				TSU
1977 10 09.49	8.3		12	B		20	4				OKA
1977 10 10.40	7.6		6.5	R		20	3	5			MAK
1977 10 10.40	8.3		10	L		25	3	6			OSA
1977 10 10.41	7.6		10	L		20	6	2			IDA
1977 10 10.43	8.4		10	L		55	7	3			TAN01
1977 10 10.44	8.2		5	R		25	3				KAM
1977 10 10.45	7.6		6	R		36	6	4			NAK01
1977 10 10.46	8.4		9	L		26	6				UOM
1977 10 10.46	8.2		12	B		20	5				OKA
1977 10 10.49	8.5		11	L		55	5				TSU
1977 10 11.40	8.5		10	L		20	6	2			IDA
1977 10 11.43	7.4		6	R		18	7	5			NAK01
1977 10 11.44	8.9		20	L		38	5				OKA01
1977 10 11.44	8.2		5	R		28	5	4			OKA03
1977 10 11.45	8.4		10	L		55	7	3			TAN01
1977 10 11.45	8.3		15	L		43	8	3			SAT
1977 10 11.45	8.1		9	L		26	7				UOM
1977 10 11.50	8.3		15	L		29	5				SUG
1977 10 11.51	8.0		5	R		12	5				TAK
1977 10 12.39	8.0		15	L		28	6	5			MIT
1977 10 12.41	8.0		10	L		33	6	6			AIY
1977 10 12.43	7.6		12	L		33	8	3	0.22		SAK
1977 10 12.43	8.0		5	R		12	5				TAK
1977 10 12.44	8.5		5	R		8					TAK01

COMET KOHLER (1977 XIV = 1977M) CON'T.

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1977 10 12.47	8.4		20	L		64					KOB
1977 10 12.48	8.0		10	L		55	8				TSU
1977 10 12.49	8.1		6.5	R		20					NIS
1977 10 12.49	8.6		6.5	R		20	8	6			HAS01
1977 10 13.41	8.5		15	L		43	7	3			SAT
1977 10 13.41	8.3		10	L		20	4	2			TOK
1977 10 13.42	8.3		10	L		25		6			OSA
1977 10 13.42	8.2		10	L		55	3	3			TAN01
1977 10 13.42	8.0		15	L		38	8	4			SEI
1977 10 13.43	7.3		6	R		18	6	5			NAK01
1977 10 13.44	7.9		5	B		6		4			SAK
1977 10 13.46	8.5		5	R		8	5				TAK01
1977 10 13.49	8.3		5	R		18	5	5			KIK
1977 10 14.42	8.2		10	L		55	7	3			TAN01
1977 10 14.44	8.0		15	L		38	3	4	0.25		SEI
1977 10 14.45	8.8		20	L		38	7				OKA01
1977 10 14.50	8.5		5.0	R		28					KIK
1977 10 15.39	8.3		12	B		20	5	5			YAN
1977 10 15.41	8.4		10	L		20	4	3			TOK
1977 10 15.41	8.3		6.5	R		40	6				TAK
1977 10 15.42	8.1		20	L		64					KOB
1977 10 15.44	9.1		20	R		40	5	4			EGA
1977 10 15.44	7.4		6.0	R		18	7	5			NAK01
1977 10 15.44	8.3		5.0	R		8					TAK01
1977 10 15.45	8.5		10	L		56	6				KOT
1977 10 15.45	8.1		15	L		38	6	4	0.42		SEI
1977 10 15.46	7.9		5.0	R		28	5	5			OKA03
1977 10 15.47	8.3		6.5	R		30	5	4			TAN
1977 10 16.39	7.6		5.0	B		6	5				SAK
1977 10 16.41	8.6		6.0	R		35					IMA
1977 10 16.42	8.2		10	L		24	10	4			SAT
1977 10 16.43	8.4		5.0	R		8					TAK01
1977 10 17.41	8.1		15	L		38	5	4	0.25		SEI01

P/COMET WILD 2 (1978B)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 02 10.02	11.3	A	32	L	6	88	1.2	5			BOR
1978 03 03.92	11.5		32	R		95	1.5	2			SHA02
1978 03 04.87	11.8		32	L		56	1	1			KEI
1978 03 04.94	12.0		20	R		40	1	1			SHA02
1978 03 26.87	11.0		21.5	L		60	2	3			STU
1978 03 28.90	11.0		21.5	L		107	2	3			STU
1978 03 29.86	11.0		20.0	R		40	3	6			SHA02
1978 03 29.90	11.0		21.5	L		107	2	3			STU
1978 04 03.05	11.1	A	32	L	6	88	1.6	4			BOR
1978 04 04.86	11.5		21.5	L		107	2.5				STU

P/COMET WILD 2 (1978B) CON'T.

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 04 04.86	12.0		32	R		95	3	4/			SHA02
1978 04 08.05	10.8	A	32	L	6	88	1.6	3			BOR
1978 04 10.06	10.9	A	32	L	6	88	1.6	4			BOR
1978 04 10.85	11.1		32	L		84	2.5	4/			KEI
1978 04 10.87	[11		21.5	L		107	2.5	2			STU
1978 04 26.07	10.7	A	32	L	6	88	1.5	3			BOR
1978 05 01.08	10.6	A	32	L	6	88	1.9	4		90	BOR
1978 05 03.07	10.7	A	32	L	6	88	1.5	4			BOR
1978 05 04.92	11.5		20	R		40	5	4			SHA02
1978 05 08.07	10.7	A	32	L	6	88	1.3	3/			BOR
1978 05 25.31	10.4	V	31.7	L		86		2			JON
1978 05 26.09	10.8	A	32	L	6	88	1.8	3/			BOR
1978 05 28.09	10.6	A	32	L	6	88	1.9	3			BOR
1978 05 29.09	10.6	A	32	L	6	88	1.9	2/			BOR
1978 06 02.10	10.5	A	32	L	6	88	1.4				BOR
1978 06 04.29	10.5	S	32	L		86		0			JON
1978 06 06.09	10.4	A	32	L	6	88	1.9	3			BOR

COMET BRADFIELD (1978C)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 02 07.68	7.8	S	4.5	R							JON
1978 02 07.68			32	L		86	2	4			JON
1978 02 08.68	8.0	S	8.0	B		11		4			JON
1978 02 09.68	8.0	S	8.0	B		11		6			JON
1978 02 10.68	8.3	S	8.0	B		11		6			JON
1978 02 13.83	6.8		12.5	R	5	55	2				CLA
1978 02 15.83	6.6		5.0	R		45	2				CLA
1978 02 18.85	6.3		5.0	R		45	2				CLA
1978 02 26.85	5.4		5.0	R		45	2.5				CLA
1978 03 02.70	6.1	H	4.8	B				5	0.5		JON
1978 03 04.86	4.5		12.5	R	5	35	3		0.5		CLA
1978 03 05.88	4.4		12.5	R	5	35	3		1.0		CLA
1978 03 08.88	4.2		12.5	R	5	34	3		3.0	95	CLA
1978 03 20.41	5.2	Y	8.0	B		20	1.5	7			BOR
1978 03 20.41	5.2	Y	5.0	B		10					BOR

COMET MEIER (1978F)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 05 04.93	10.0	S	11.5	R		70	1.0	3			RID
1978 05 09.91	10.0		32	R		97	4.0	5		90	SHA02
1978 05 09.93	10.0		21	L		35	3				GAI
1978 05 09.94	10.0	S	11.5	R		70	1	7			RID
1978 05 24.92	10.0		32	R		95	2	5			SHA02
1978 05 25.94	9.5	S	12.5	R	17	50	2	7			HEN
1978 05 26.96	10.5		10.5	B		25	3	3			PAN

COMET MEIER (1978F) CON'T.

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 05 28.95	9.7	S	11.5	R		70	1.5	6			RID
1978 06 06.97	[9.0		8.0	B		15					KEI
1978 06 27.08	10.0		25	L		52		5			TRE01
1978 07 03.08	8.0		25	L		52	2	4			TRE01
1978 12 04.84	5.2		12.5	R	5	45	2				CLA
1979 04 24.79	10	P									HER
1979 05 21.78	13	P									SEK
1979 05 27.78	13.5	P									SEK
1979 06 21.31	11.0:		32	L	6		& 2				BOR
1979 06 26.31	11.1		32	L	6		1.5				BOR
1979 07 05.30	10.8		32	L	6		1.8				BOR

COMET MACHHOLZ (1978L)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 09 15.73	11.5	V	32	L		86		1			JON
1978 11 19.60	10.8		32	L		70					CLA

COMET SEARGENT (1978M)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 10 03.88	5.4		12.5	R	5	45	0.75				CLA
1978 10 04.86	5.5		12.5	R	5	45	0.75		2.0		CLA
1978 10 05.70	6.8	S	8.0	B		11		0			JON
1978 10 08.86	5.8		5.0	R		45	0.75				CLA
1978 10 11.67			32	L		86		8	0.1	205	JON
1978 10 11.67	7.3	C	4.5	R				0			JON
1978 10 12.85	6.1		12.5	R	5	45	0.75		1.5		CLA
1978 10 14.82	6.2		12.5	R	5	45	0.75				CLA
1978 10 15.82	6.3		12.5	R	5	45	0.75				CLA
1978 10 16.84	6.4		12.5	R	5	45	0.75				CLA
1978 10 19.54	6.8		12.5	R	5	45	0.75				CLA
1978 10 21.50	7.9	S	4.5	R				8		180	JON
1978 10 25.54	7.3		12.5	R	5	45	0.7				CLA
1978 10 26.54	7.4		12.5	R	5	45	0.7				CLA
1978 10 30.54	7.6		12.5	R	5	45	0.7				CLA
1978 10 31.43	8.1	S	7.8	R				0			JON
1978 10 31.43			32	L				5			JON
1978 11 03.42	8.6	S	4.5	R							JON
1978 11 03.42			32	L				5		180	JON
1978 11 06.49	8.9		12.5	R	4	45	0.7				CLA
1978 11 06.66			32	L				4			JON
1978 11 06.66	8.4	S	4.5	R							JON
1978 11 07.41	8.3	S	4.5	R							JON
1978 11 07.41			32	L		86		3			JON
1978 11 09.35	8.8	S	7.8	R							JON
1978 11 09.38			32	L				2			JON

COMET SEARGENT (1978M) CON'T.

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1978 11 09.56	9.4		31	L		70	0.6				CLA
1978 11 11.60	9.6		31	L		70	0.5				CLA
1978 11 19.42	10.8	V	32	L		86		3			JON
1978 11 19.42	10.4	V	7.8	R							JON
1978 11 20.42	10.2	V	7.8	R							JON
1978 11 20.42			32	L				2			JON
1978 11 21.42	10.2	V	7.8	R			3	2			JON
1978 11 25.41	10.8	V	7.8	R							JON
1978 11 25.41	11.2	V	32	L		86		0			JON
1978 11 27.41	11.6	V	32	L		48		2			JON
1978 11 29.42	11.8	V	32	L		48		0			JON

COMET BRADFIELD (1979C)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1979 06 24.42	10										BRA01
1979 06 25.33	10.5:	P									HER
1979 06 25.42	10						3				TRE
1979 06 25.44	10						1				TRE
1979 06 26.46	10.3		12.7	R		70					CLA
1979 06 27.45	9.8		25.4	L	8	30					CLA
1979 06 28.34	10	P									HER
1979 06 29.36	11	P									HER

P/COMET RUSSELL (1979D)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1979 06 16.44	17	P									RUS
1979 06 24.45	17	P									RUS
1979 06 28.15	17	P									SHA
1979 06 29.50	17	P									PRA

COMET TORRES (1979E)

DATE (UT)	MAG.	R	AP.	T	F/	PWR	COMA	DC	TAIL	PA	OBS.
1979 06 26.25	18	P									TOR
1979 06 28.25	18	P									TOR
1979 06 29.24	18	P									TOR
1979 07 02.20	18	P									TOR

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ADDITIONS TO PREVIOUS ISSUE: MAGNITUDE ESTIMATE REFERENCES

C = CAPE PHOTOGRAPHIC CATALOGS
E = PHOTOELECTRIC OBSERVATIONS (MAGN. GIVEN TO HUNDREDTHS)
H = HARVARD REVISED PHOTOMETRICAL SEQUENCE
V = VARIABLE STAR CHARTS FROM GROUPS OTHER THAN A.A.V.S.O.
Y = YALE CATALOGUE OF BRIGHT STARS

INDEX TO THE COMET AND THE COMET QUARTERLY

This index is a continuation to that published in No. 23 of THE COMET (July 1976), and listed below (alphabetically, by title) are the major articles published in Nos. 23-28 of this publication. Following the index to major articles is an index to all cometary information published in Nos. 1-28 (March 1973 until August 1978). A new indexing policy succeeds the index published in this issue: Indices for THE INTERNATIONAL COMET QUARTERLY will be published at the end of each volume (i.e., once a year). -D.W.E.G.

INDEX TO THE COMET (Nos. 23-24): Major Articles

Amateurs Observe the Apparition of Comet West, Daniel Green, No. 23, p. 5.
Index to THE COMET of Major Articles (No. 1 through No. 22), 23, 7.
News of Recent and Forthcoming Comets, Thomas Rokoske, 24, 10.
News of Recent Comets, Daniel Green, 23, 4.
The 1976 Apparition of Comet d'Arrest, Daniel Green, 24, 3.
Notes on Current Novae, Phil Harrington, 24, 8.
Nova Report, Phil Harrington, 23, 3.
Report of Comet-Related Activities at the Astronomical League/A.L.P.O. Convention, Kutztown, PA, Thomas Rokoske, 24, 9.
Some Late Notes on Comet d'Arrest, Daniel Green, 23, 4.

INDEX TO THE COMET QUARTERLY (Nos. 25-28): Major Articles

About the 1977 Apparition of Periodic Comet Grigg-Skjellerup, Daniel Green and J. U. Gunter, 25, 4.
The Astronomical League in 1978, Daniel Green, 26, 3.
August Meteors in Pegasus, Daniel Green, 27, 5.
Comet Award Program, Daniel Green, 26, 3.
Comet Kohler (The Comet--Bulletin), Thomas Rokoske, 25, 11.
Comet Kohler, J. U. Gunter and Daniel Green, 26, 4.
Comet Meier 1978f: T - 200 Days, Daniel Green, 28, 9.
Comet Meier Widely Observed, J. U. Gunter and Daniel Green, 27, 6.
Comet West 1975n: Observations and Drawings, Daniel Green, 25, 5.
Magnitude Analyses of Four Comets, Daniel Green, 28, 3.
News and Notes of Recent Comets, Daniel Green, 28, 9.
News of Other Recent Comets and Novae, Daniel Green, 27, 8.
News of Recent Comets, Daniel Green, 25, 10.
News of Recent Comets, Daniel Green, 26, 8.
Nova Report, Phil Harrington, 25, 3.
Observations of Recent Comets, Daniel Green, 28, 10.
The Observer's Package, Daniel Green, 26, 2.
Possible Moon of Herculina, Daniel Green and Brian G. Marsden, 27, 3.
Possible Moon of Pluto, Brian G. Marsden and Daniel Green, 27, 3.
Some Etchings of the Comet of 1723, Daniel Green, 28, 10.
What to do When You Discover a Comet or Nova, Daniel Green, 27, 4.

INDEX TO THE COMET AND THE COMET QUARTERLY (Nos. 1-28): Comets
[Listed by permanent Roman numeral designation, otherwise by provisional letter designation.]

INDEX TO THE COMET AND THE COMET QUARTERLY: COMETS

(Cont. from page 43)

INDEX TO THE COMET AND THE COMET QUARTERLY: COMETS

(*Cont. from page 44*)

NOTE in the above indices that issue numbers (1-28) and page numbers are separated by commas, and that separate issues are separated by semicolons. THE COMET had a volume-numbering system before issue 18, but for ease of using an index, the first 17 issues were assigned numbers. Volume 1, Nos. 1-8 (March-December 1973) are assigned Nos. 1-8; Volume 2, Nos. 1-6 (January-November 1974) are assigned Nos. 9-14, respectively; Volume 3, Nos. 1-3 (January-July 1975) are assigned Nos. 15-17, respectively.

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NEWS OF RECENT COMETS

(*Cont. from page 29*) in the IAU Circulars (see page 46).

Comet Russell 1979d. Kenneth Russell of the United Kingdom Schmidt Telescope Unit in Australia found a 17th-magnitude comet on plates taken June 16 and 24. M. P. Candy has computed an orbit suggesting the comet to be a short-period object with an eccentricity of about 0.6 and a perihelion distance of 1.6 AU on May 30 (IAUC 3376). The comet is moving northward in July, but will probably not become brighter than magnitude 17.

Comet Torres 1979e. Carlos Torres, National Observatory of the University of Chile, found a comet from plates taken in late June. B. G. Marsden finds parabolic orbital elements from five observations that suggest perihelion will occur in early October at a distance of about 4.6 AU (IAUC 3377). Magnitudes on page 42 of this issue.

UPSILON PEGASID METEOR SHOWER

Observers are requested to photograph this newly-discovered meteor shower as much as possible from July 18 until August 26. Cameras should be aimed directly at the radiant (υ Peg), and the standard 35-mm camera with a normal lens is ideal for this meteor work. Interested observers are urged to contact the undersigned.

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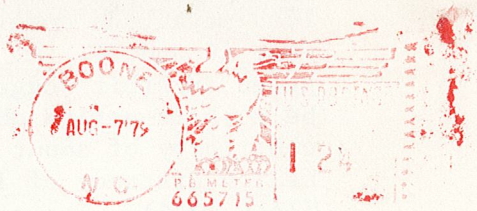

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