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The overall lightcurve of the second historical decline of BZ Cam

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BZ Cam is a VY Scl-type cataclysmic variable (Garnavich et al. 1988). I reported the detection of the second historical decline at VSOLJ Variable Star Bulletin No.37 (Watanabe 2000). I obtained the further observation, listed in Table 1, and obtained the overall light curve of this second historical decline, shown in Figure 1. The minimum is 13.9 mag. and continues 40-50 days. The total decline period is 550 days. The decline speed is 0.0038 mag./day (from 12.4 mag./JD 2451125 to 13.9 mag./JD 2451520). The recovery speed is 0.028 mag./day (from 13.7 mag./JD 2451579 to 12.3mag./JD 2451629). The recovery speed is about 7 times as fast as the decline speed.

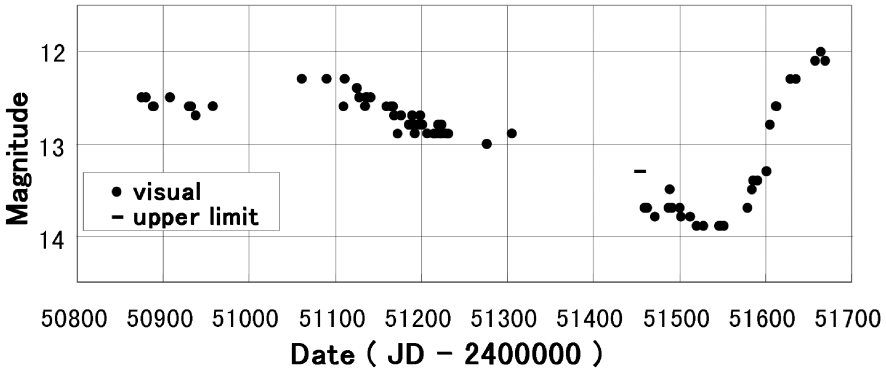

Figure 1 : Light curve of BZ Cam

Acknowledgements
I would like to thank Dr. I.L.Andronov (Odessa State University, Ukraine) for helpful advice.

References
Garnavich,P., Szkody, P., 1988, PASP,100, 1522
Watanabe,T., 2000, VSOLJ Variable Star Bulletin, 37, 1

Table 1. Observation data of BZ Cam

JD-2400000	mag.	JD-2400000	mag.	JD-2400000	mag.
51579.149	13.7	51601.935	13.3	51635.956	12.3
51584.116	13.5	51606.018	12.8	51657.972	12.1
51586.147	13.4	51612.142	12.6	51663.962	12.0
51591.076	13.4	51613.053	12.6	51669.331	12.1
51591.076	13.4	51628.942	12.3		

The magnitude was estimated against neighboring GSC starsas follows, these are common to the forword report (Watanabe 2000):
GSC4362.467 (used as 12.2 mag.) , GSC4362.81 (used as 12.7 mag.)
GSC4362.925 (used as 13.3 mag.), GSC4362.17 (used as 13.8 mag.)
GSC4362.1037 (used as 13.8 mag.), GSC4362.861 (used as 13.9 mag.)
Instrument: 32cm re°ector + visual

Visual and CCD minima of eclipsing binaries during 2000

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Following table is summary of minima of eclipsing binary reported from VSOLJ members.

star	min. 2450000+		O-C	E		n	obs.	inst.
ST Aqr	2451755.1244	*1	-0.0261	13468.5	V	76	Nga	10L+ST-5
ST Aqr	2451757.0734		-0.0296	13471	V	91	Nga	10L+ST-5
DX Aqr	2451808.0001		-0.0193	9651	C	78	Nga	10L+CV-04
EE Aqr	2451806.0428	*1	+0.0099	21566.5	C	104	Nga	10L+CV-04
EL Aqr	2451809.0542	*1	+0.0011	25596.5	V	61	Kis	25SC+AP-7
TY Cap	2451734.235		+0.042	4876	v	16	Hsk	28SC
RW Cet	2451879.9730		-0.0034	9896	V	124	Kis	25SC+AP-7
TW Cet	2451887.9447	*1	-0.0206	30028.5	Rc	36	Nga	10L+CV-04
TX Cet	2451814.1918		+0.0143	11786	V	102	Kis	25SC+AP-7
VV Cet	2451825.0741		+0.0971	39236	V	48	Kis	25SC+AP-7
VV Cet	2451842.0483	*1	+0.0936	39268.5	V	15	Nga	10L+CV04
IQ CMa	2451571.9551	*2	-0.0261	4200	V	39	Nga	10L+ST-5
YY CMi	2451579.0448	*1	+0.0126	21531.5	V	86	Nga	10L+ST-5
AK CMi	2451585.0675		+0.0261	14991	V	134	Kis	25SC+BT-20
ZZ Cyg	2451734.067		-0.029	10712	v	11	Hsk	28SC
TY Del	2451780.99		+0.06	7406	v	9	Hsk	28SC
AI Dra	2451694.14		+0.02	7009	v	10	Sga	8B
AI Dra	2451736.088		+0.011	7044	v	14	Sga	10R
AI Dra	2451760.083		+0.030	7064	v	12	Sga	8B

star	min. 2450000+		O-C	E		n	obs.	inst.
AI Dra	2451778.034		-0.002	7079	v	12	Sga	8B
AI Dra	2451808.02		+0.01	7104	v	6	Sga	8B
YY Eri	2451815.1910		+0.0867	31831	V	53	Kis	25SC+AP-7
YY Eri	2451867.1126	*1	+0.0870	31992.5	Rc	115	Nga	10L+CV-04
YY Eri	2451873.0597		+0.0865	32011	Rc	61	Nga	10L+CV-04
YY Eri	2451908.109		+0.093	32120	v	65	Kit	12B
WX Eri	2451825.1735	*1	+0.0125	29508.5	V	90	Kis	25SC+AP-7
BC Eri	2451877.0216	*4	-0.0093	713	Rc	50	Nga	10L+CV-04
BC Eri	2451883.0913	*4	+0.0016	724.5	V	113	Kis	25SC+AP-7
BV Eri	2451546.8920		-0.0735	15950	V	69	Nga	10L+ST-5
CW Eri	2451881.0348		-0.0141	3890	Rc	63	Nga	10L+CV-04
SZ Her	2451697.007		-0.021	12019	v	8	Hsk	28SC
RX Hya	2451584.0461		+0.0432	3566	V	67	Nga	10L+ST-5
WY Hya	2451906.0930		+0.0186	15831	V	79	Kis	25SC+AP-7
UV Leo	2451547.196		+0.018	21841	v	30	Kit	12B
UV Leo	2451880.245		+0.020	22396	v	25	Kit	12B
UV Leo	2451886.247		+0.021	22406	v	27	Kit	12B
AM Leo	2451624.0467		-0.0057	24961	V	41	Nga	10L+ST-5
AM Leo	2451626.0619	*1	-0.0025	24966.5	V	52	Nga	10L+ST-5
AP Leo	2451611.0524		-0.0328	28057	V	51	Nga	10L+ST-5
AP Leo	2451629.1223		-0.0379	28099	V	72	Nga	10L+ST-5
RR Lep	2451908.0066		-0.0220	23520	Rc	50	Nga	10L+CV-04
BO Mon	2451585.0675		-0.0756	3630	V	100	Kis	25SC+BT-20
V502 Oph	2451666.1193		-0.0873	23141	V	74	Nga	10L+ST-5
V566 Oph	2451690.1572		+0.0636	245055.5	V	86	Nga	10L+ST-5
ER Ori	2451551.9661	*1	+0.0271	23442.5	V	51	Nga	10L+ST-5
ER Ori	2451890.0500		+0.0271	24241	V	73	Kis	25SC+AP-7
FK Ori	2451895.0846		+0.0076	3191	V	109	Kis	25SC+AP-7
FL Ori	2451904.9918		+0.0224	4228	V	73	Kis	25SC+AP-7
VZ Psc	2451814.0407		-0.0247	30560	C	94	Nga	10L+CV-04
AY Pup	2451574.0544	*1	-0.0448	23293.5	V	171	Kis	25SC+BT-20
RS Ser	2451702.1451		+0.0772	28054	V	53	Nga	10L+ST-5
AS Ser	2451673.0430		+0.0008	50092	V	33	Nga	10L+ST-5
AS Ser	2451694.0156		+0.0062	50137	V	35	Nga	10L+ST-5
Y Sex	2451617.0271		+0.0169	23464	V	34	Nga	10L+ST-5
Y Sex	2451618.0757	*1	+0.0160	23466.5	V	43	Nga	10L+ST-5
V525 Sgr	2451756.0366		-0.0103	31333	V	38	Nga	10L+ST-5
RZ Tau	2451586.9463	*1	+0.0333	33464.5	V	35	Nga	10L+ST-5
RZ Tau	2451586.945	*1	+0.032	33464.5	v	14	Ioh	10L
AC Tau	2451548.0685		+0.0496	2893	v	31	Mhh	20L
X Tri	2451734.211		-0.037	9502	v	12	Hsk	28SC
AZ Vir	2451606.2147		-0.0180	21820	V	176	Kis	25SC+BT-20
AZ Vir	2451663.0672	*1	+0.0139	21982.5	V	34	Nga	10L+ST-5
AZ Vir	2451664.0843	*1	-0.0180	21985.5	V	225	Kis	25SC+BT-20
HadV48	2451663.2662	*3	-0.0004	564	V	67	Kis	25SC+BT-20

*1: secondary minimum
*2 min1 = 2448500.1684 + 0.731384 x E (Hipparcos Catalog)
*3 min1 = 2449972.923 + 2.997056 x E (Mr. Kato obtained this value [vsolj-sci1443])
*4 min1 = 2451501.10674970 + 0.5272429 x cycle (IBVS4937)

Minimum was observed on V; Johnson V, Rc; Kron-Cousins Rc, v; visual. C; CCD without ¯lter
O-C: elements from GCVS IV (Kholopov et al, Moscow 1986)
n: number of estimates
Obs: abbreviation for observers

Hsk	Kenji	Hirosawa
Ioh	Hiroshi	Itoh
Kis	Seiichiro	Kiyota
Kit	Kiyotaka	Kanai
Mhh	Hiroyuki	Maehara
Nga	Kazuo	Nagai
Sga	Yoshiko	Sugai

Inst: instrument(s) used for observation: number indicates diameter of mirror or lens.
SC; Schmidt cassegrain telescope, L; re°ector, R; refractor, B; binocular.
ST-5 CCD camera (SBIG), AP-7 CCD camera (Apgee), BT-20 CCD camera (Bitran), CV-04 CCD camera (Mutoh)

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