

Results of the IMO Video Meteor Network – February 2011

Sirko Molau, Abenstalstr. 13b, 84072 Seysdorf

2011/04/07

1. Observers

Code	Name	Place	Camera	FOV [°]	St.LM [mag]	Eff.CA [km ²]	Nights	Time [h]	Tot. CA [10 ³ km ² h]	Meteors
BENOR	Benitez-S.	Las Palmas	TIMES4 (1.4/50)	2359	3.2	492	12	23.2	-	70
BERER	Berko	Ludanyhalaszi	HULUD1 (0.95/3)	6500	3.8	2209	14	55.1	-	143
			HULUD2 (0.75/6)	2258	4.7	1348	14	91.3	208.6	284
BRIBE	Brinkmann	Herne Bergisch Gladbach	HERMINE (0.8/6)	2374	4.2	1084	12	43.5	96.2	123
			KLEMOI (0.8/6)	2386	5.4	2781	13	44.5	-	125
CASFL	Castellani	Monte Baldo	BMH1 (0.8/6)	2350	-	-	19	137.2	-	434
			BMH2 (1.5/4.5)*	4243	-	-	17	91.5	-	292
CRIST	Crivello	Valbrenna	C3P8 (0.8/3.8)	5575	4.2	2525	15	73.4	194.8	268
			STG38 (0.8/3.8)	5593	4.3	2810	21	116.0	434.4	529
CSISZ	Csizmadia	Zalaegerszeg	HUVCSE01 (0.95/5)	2439	3.0	249	17	45.7	31.0	121
CURMA	Currie	Grove	MIC4 (0.8/6)	1471	5.2	3008	8	24.9	17.7	56
ELTMA	Eltri	Venezia	MET38 (0.8/3.8)	5620	4.3	1778	14	95.3	328.1	272
GONRU	Goncalves	Tomar	TEMPLAR1 (0.8/6)*	2188	5.3	2331	19	139.5	299.8	516
			TEMPLAR2 (0.8/6)*	2303	5.0	2397	20	108.6	319.6	385
GOVMI	Govedic	Sredisce ob Dravi	ORION2 (0.8/8)	1471	6.0	3916	15	83.9	-	238
HERCA	Hergenrother	Tucson	SALSA3 (1.2/4)*	4332	4.0	1471	24	224.3	263.2	284
HINWO	Hinz	Brannenburg	AKM2 (0.85/25)*	754	5.7	1306	11	97.2	-	338
IGAAN	Igaz	Baja Hodmezovasarhely	HUBAJ (0.8/3.8)	5600	4.3	3338	13	62.8	59.7	175
			HUHOD (0.8/3.8)	5609	4.2	3031	13	35.2	50.9	99
JOBKL	Jobse	Budapest Oostkapelle	HUPOL (1.2/4)	3929	3.5	1144	16	38.4	89.2	94
			KLARA2 (1.2/85)*	1564	-	-	1	11.9	-	45
KACJA	Kac	Kostanjevec Ljubljana	METKA (0.8/8)*	1381	4.0	2246	9	55.7	35.9	196
			ORION1 (0.8/8)	1420	5.3	2336	15	54.3	47.2	155
KERST	Kerr	Glenlee	REZIKA (0.8/6)	2307	5.0	2293	10	75.6	52.6	323
			STEFKA (0.8/3.8)	5540	4.2	2882	11	52.9	72.5	180
LUNRO	Lunsford	Chula Vista	GOCAM1 (0.8/3.8)	5238	4.2	2637	15	98.2	-	654
			BOCAM (1.4/50)*	1860	5.1	1719	15	101.5	141.7	350
MOLSI	Molau	Seysdorf	AVIS2 (1.4/50)*	1771	6.1	4182	9	74.7	201.9	705
			MINCAM1 (0.8/8)	1477	4.9	1716	13	82.1	46.6	234
MORJO	Morvai	Ketzür Fülöpszallas	REMO1 (0.8/3.8)	5592	3.0	974	15	96.4	91.3	93
			HUFUL (1.4/5)	2522	3.5	532	14	47.9	-	117
OTTMI	Otte	Pearl City	ORIE1 (1.4/5.7)	3837	-	-	13	58.5	-	177
PERZS	Perko	Becsehely	HUBEC (0.8/3.8)*	5448	3.4	1500	20	93.8	319.6	336
ROTEC	Rothenberg	Berlin	ARMEFA (0.8/6)	2369	4.8	1801	16	51.4	121.7	131
SCHHA	Schremmer	Niederkrüchten	DORAEMON (0.8/3.8)	5537	3.0	846	13	21.1	-	61
SLAST	Slavec	Ljubljana	KAYAK1 (1.8/28)	604	6.5	1849	12	74.2	-	205
STOEN	Stomeo	Scorze	MIN38 (0.8/3.8)	5631	4.1	2407	17	119.0	-	498
			NOA38 (0.8/3.8)	5609	4.9	5800	16	94.2	-	363
STRJO	Strunk	Herford	SCO38 (0.8/3.8)	5598	5.0	4416	17	119.4	-	526
			MINCAM2 (0.8/6)	2357	4.7	1380	7	31.9	122.8	93
TEPIS	Tepliczky	Budapest	MINCAM3 (0.8/12)	728	6.1	2271	10	32.6	-	98
			MINCAM5 (0.8/6)	2344	5.2	2535	7	41.2	238.6	163
TRIMI	Triglav	Velenje	HUMOB (0.8/6)	2375	4.9	2258	8	50.7	105.8	144
YRJIL	Yrjölä	Kuusankoski	SRAKA (0.8/6)*	2222	-	-	13	48.0	-	168
Sum			FINEXCAM (0.8/6)	2337	5.5	3574	18	91.5	410.6	234
Sum							28	3310.2		11095

* active field of view smaller than video frame

2. Observing Times (h)

February	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
BENOR	-	-	-	-	-	-	4.3	2.1	-	1.4	1.1	-	-	-	-
BERER	-	-	-	-	2.8	10.2	0.4	7.8	3.3	3.9	1.3	5.9	-	3.9	-
	-	-	-	-	4.9	5.9	1.7	7.4	8.6	7.8	2.3	12.2	-	7.1	-
BRIBE	-	-	-	-	-	-	1.7	6.3	7.8	-	-	-	1.5	-	1.3
	-	1.3	2.3	-	-	-	-	5.7	3.5	-	-	0.8	2.3	0.8	2.8
CASFL	9.8	10.9	8.7	2.5	10.9	10.1	11.8	10.3	7.4	11.4	9.3	-	0.7	0.3	-
	-	7.2	7.5	1.0	12.0	5.9	8.2	9.4	-	6.0	4.5	0.9	0.4	-	-
CRIST	7.6	5.9	9.3	8.1	3.6	-	-	3.5	-	-	-	-	-	-	-
	10.3	11.3	11.2	9.8	6.4	8.7	3.5	6.6	1.0	0.5	-	-	-	0.5	-
CSISZ	-	0.5	1.1	1.5	2.8	4.2	9.1	5.1	2.0	4.4	-	-	-	-	-
CURMA	4.3	4.7	-	-	-	-	6.3	0.7	-	-	-	-	3.6	0.3	2.7
ELTMA	8.3	10.3	10.4	4.0	6.9	5.9	2.0	-	7.0	9.1	-	-	-	-	-

GONRU	11.0	10.5	9.1	10.0	9.2	9.7	4.4	-	6.5	8.2	-	3.3	-	-	3.5
	9.1	6.5	5.8	7.3	4.8	10.0	2.0	-	3.7	6.8	-	1.8	2.3	-	2.8
GOVMI	-	-	-	7.3	8.9	8.9	10.2	8.5	5.8	5.8	-	0.9	-	-	-
HERCA	4.8	11.5	11.6	11.5	11.6	11.6	11.5	11.5	11.5	11.5	11.4	11.4	11.4	4.9	11.3
HINWO	-	9.4	-	5.9	11.9	11.8	11.8	8.1	11.7	-	-	-	-	-	-
IGAAN	-	0.6	-	2.4	7.8	9.0	8.0	8.4	9.5	0.2	-	1.7	-	-	-
	-	-	-	1.7	3.5	6.2	5.0	5.5	2.8	0.3	-	3.7	-	-	-
	-	1.7	-	1.5	1.5	6.8	5.1	4.4	4.0	0.3	-	3.1	-	-	-
JOBKL	-	-	-	-	-	-	-	11.9	-	-	-	-	-	-	-
KACJA	-	8.7	3.0	-	8.1	6.1	6.5	8.9	3.7	5.7	-	-	-	-	-
	-	0.7	2.2	0.6	5.9	8.7	8.6	4.4	5.3	4.0	0.6	-	-	-	-
	-	-	3.0	7.3	9.6	12.5	-	12.3	7.8	12.0	1.6	-	-	-	-
	-	-	0.8	1.6	8.3	6.9	-	4.7	8.7	7.0	0.3	-	-	-	-
KERST	-	-	6.4	4.9	-	7.9	5.3	-	-	6.8	8.3	7.0	-	-	5.9
LUNRO	6.3	8.5	3.9	8.8	7.9	1.1	7.8	4.1	5.3	9.0	8.9	10.0	8.8	1.9	-
MOLSI	-	-	-	-	11.3	11.6	11.6	8.5	-	-	-	-	-	-	-
	-	-	-	-	11.1	10.2	9.2	4.3	-	0.3	-	0.8	-	-	-
	-	0.2	4.1	-	-	-	0.9	10.5	1.4	-	-	-	-	0.2	-
MORJO	-	-	-	2.6	5.7	9.6	5.1	2.8	6.1	4.7	0.8	2.6	-	-	-
OTTMI	-	-	6.9	5.7	7.6	-	-	7.3	1.0	6.4	3.0	3.6	5.7	2.8	3.8
PERCZ	3.4	1.1	1.7	4.9	9.6	6.5	8.9	9.6	6.6	7.8	0.7	0.4	-	-	-
ROTEC	-	0.8	-	-	-	0.2	4.0	-	3.4	-	0.7	-	-	1.2	1.4
SCHHA	-	-	0.3	-	-	-	0.9	8.3	0.6	-	-	0.9	1.5	0.3	0.9
SLAST	-	-	-	2.0	11.9	10.0	8.3	7.4	9.6	4.5	0.8	-	-	-	-
STOEN	11.1	12.5	8.7	3.8	8.4	10.1	4.9	-	10.9	10.8	-	-	-	-	-
	9.0	8.9	8.2	3.3	9.5	4.0	0.7	-	9.4	9.5	-	-	-	-	-
	11.2	11.1	9.8	3.2	8.4	9.2	2.0	-	9.7	9.7	-	-	-	-	-
STRJO	-	-	-	-	-	-	-	3.9	8.1	-	-	-	-	-	-
	-	-	-	-	-	-	-	6.9	6.2	-	-	-	0.9	-	1.2
	-	-	-	-	-	-	-	8.4	7.4	-	-	-	-	-	-
TEPIS	-	-	-	1.0	2.4	9.8	9.8	10.0	6.8	6.7	-	4.2	-	-	-
TRIMI	-	0.3	5.5	1.8	2.1	6.8	5.2	6.0	4.2	5.3	-	-	-	-	-
YRJIL	-	-	-	-	-	-	-	-	10.0	2.8	2.3	6.8	8.1	6.6	9.2
Sum	106.2	145.1	141.5	126.0	237.3	256.1	206.7	251.5	228.3	190.6	57.9	82.0	47.2	30.8	46.8

February	16	17	18	19	20	21	22	23	24	25	26	27	28
BENOR	-	-	1.0	-	0.9	2.6	-	1.6	1.5	2.4	-	1.7	2.6
BERER	-	-	-	-	-	2.3	-	-	7.2	2.3	2.2	1.6	-
	-	-	-	-	-	4.3	-	-	9.5	3.2	9.0	7.4	-
BRIBE	5.0	-	-	0.7	2.7	6.8	5.8	-	-	0.3	-	-	3.6
	6.3	-	-	-	-	5.0	7.2	-	-	0.3	-	-	6.2
CASFL	-	-	-	0.3	-	-	7.4	9.5	5.8	8.4	-	-	1.7
	-	-	4.3	0.7	-	-	5.9	6.4	5.2	6.0	-	-	-
CRIST	-	0.5	8.1	-	1.5	2.0	4.3	7.1	5.4	5.5	-	-	1.0
	0.8	-	10.1	1.2	0.7	3.0	6.2	9.1	7.6	6.7	-	-	0.8
CSISZ	-	-	-	1.0	-	0.9	1.6	1.3	6.2	0.3	3.4	-	0.3
CURMA	-	-	-	-	-	-	-	-	-	-	2.3	-	-
ELTMA	-	-	-	-	-	-	4.0	8.0	7.9	6.9	4.6	-	-
GONRU	-	-	-	-	6.9	1.9	7.6	9.1	9.2	3.3	-	7.7	8.4
	-	-	-	-	3.3	1.0	6.1	7.3	6.4	3.4	-	10.6	7.6
GOVMI	-	-	-	3.5	-	1.7	0.6	4.0	10.0	1.4	6.4	-	-
HERCA	11.3	-	2.2	-	-	-	11.1	11.1	2.1	10.8	4.6	1.2	10.9
HINWO	-	-	-	-	-	-	-	9.7	-	10.9	2.9	-	3.1
IGAAN	-	3.8	-	-	-	-	1.7	-	-	-	2.0	7.7	-
	0.3	1.3	-	-	-	0.8	-	-	-	-	3.1	1.0	-
	-	-	-	0.5	-	-	0.3	1.3	2.7	2.4	1.5	1.3	-
JOBKL	-	-	-	-	-	-	-	-	-	-	-	-	-
KACJA	-	-	-	-	-	-	-	-	5.0	-	-	-	-
	-	-	-	-	-	-	0.3	1.6	2.1	5.5	3.8	-	-
	-	-	-	-	-	-	-	0.5	9.0	-	-	-	-
	-	-	-	-	-	-	-	-	4.2	6.9	3.5	-	-
KERST	-	7.3	0.9	-	7.2	-	-	-	5.9	8.3	8.1	-	8.0
LUNRO	-	-	-	-	-	-	-	-	-	-	-	-	9.2
MOLSI	-	-	-	-	-	-	-	7.5	2.5	10.7	2.7	-	8.3
	-	-	-	0.2	-	-	9.6	8.5	1.9	11.5	3.2	-	11.3
	-	-	-	-	3.3	11.7	11.7	4.0	11.5	11.5	11.4	2.7	11.3
MORJO	-	0.9	-	0.7	-	0.5	-	-	-	-	4.3	1.5	-

OTTMI	-	-	1.3	3.4	-	-	-	-	-	-	-	-	-
PERCZ	-	-	3.2	2.2	-	1.9	4.3	8.6	8.6	1.0	2.8	-	-
ROTEC	0.5	-	-	-	2.3	7.7	5.1	3.5	3.8	8.2	-	0.8	7.8
SCHHA	2.0	-	-	-	0.6	1.3	3.2	-	-	-	-	-	0.3
SLAST	-	-	-	-	-	-	-	0.6	8.1	7.5	3.5	-	-
STOEN	-	-	4.8	1.8	-	0.3	3.2	9.0	8.6	8.1	2.0	-	-
	-	-	6.2	1.9	-	0.3	5.6	5.7	5.5	6.5	-	-	-
	-	-	6.4	3.7	-	1.2	7.1	9.0	7.0	8.2	2.5	-	-
STRJO	3.5	-	-	-	3.4	5.9	5.3	-	-	-	-	-	1.8
	3.1	-	-	-	3.6	1.5	6.1	-	-	1.6	-	-	1.5
	4.0	-	-	-	4.2	7.3	7.4	-	-	-	-	-	2.5
TEPIS	-	-	-	-	-	-	-	-	-	-	-	-	-
TRIMI	-	-	-	-	-	-	-	2.5	3.5	1.3	3.5	-	-
YRJIL	6.7	8.0	6.8	3.2	4.1	1.3	2.3	2.0	2.3	-	-	6.9	2.1
Sum	43.5	21.8	55.3	25.0	44.7	73.2	141.0	148.5	176.2	171.3	93.3	52.1	110.3

3. Results (Meteors)

February	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
BENOR	-	-	-	-	-	-	17	5	-	5	3	-	-	-	-
BERER	-	-	-	-	10	23	2	18	11	10	1	19	-	11	-
	-	-	-	-	12	16	3	44	47	18	4	36	-	21	-
BRIBE	-	-	-	-	-	-	7	17	13	-	-	-	4	-	4
	-	6	5	-	-	-	-	22	7	-	-	3	7	1	8
CASFL	33	35	32	8	38	25	38	33	16	33	27	-	2	1	-
	-	28	32	3	29	18	26	28	-	17	18	1	1	-	-
CRIST	27	31	40	29	13	-	-	24	-	-	-	-	-	-	-
	39	52	64	49	33	50	10	37	2	1	-	-	-	1	-
CSISZ	-	2	3	5	8	16	17	15	8	13	-	-	-	-	-
CURMA	9	9	-	-	-	-	22	2	-	-	-	-	5	1	3
ELTMA	29	30	31	12	24	17	4	-	24	20	-	-	-	-	-
GONRU	48	43	47	39	35	41	14	-	27	25	-	6	-	-	4
	33	25	28	28	25	36	5	-	12	25	-	6	8	-	5
GOVMI	-	-	-	22	25	24	31	28	14	20	-	3	-	-	-
HERCA	13	16	18	21	16	14	8	12	12	11	10	15	19	10	14
HINWO	-	33	-	18	37	42	40	35	48	-	-	-	-	-	-
IGAAN	-	2	-	8	20	33	20	25	21	1	-	10	-	-	-
	-	-	-	4	9	17	17	14	10	1	-	9	-	-	-
	-	3	-	3	6	16	13	12	13	1	-	5	-	-	-
JOBKL	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-
KACJA	-	34	12	-	23	29	15	30	16	21	-	-	-	-	-
	-	1	7	3	13	20	29	13	16	17	2	-	-	-	-
	-	-	11	18	31	67	-	56	24	70	7	-	-	-	-
	-	-	3	5	39	31	-	23	23	18	1	-	-	-	-
KERST	-	-	48	27	-	55	24	-	-	56	55	26	-	-	39
LUNRO	20	31	13	36	23	2	25	14	10	34	40	25	31	3	-
MOLSI	-	-	-	-	143	132	151	33	-	-	-	-	-	-	-
	-	-	-	-	40	43	40	12	-	1	-	1	-	-	-
	-	1	7	-	-	-	3	10	4	-	-	-	-	2	-
MORJO	-	-	-	7	15	18	12	9	17	8	2	7	-	-	-
OTTMI	-	-	15	19	23	-	-	27	2	22	12	11	14	8	11
PERCZ	7	3	7	21	35	26	34	37	35	24	2	2	-	-	-
ROTEC	-	3	-	-	-	1	10	-	10	-	2	-	-	3	2
SCHHA	-	-	1	-	-	-	2	21	2	-	-	4	5	1	2
SLAST	-	-	-	5	27	34	29	20	26	15	3	-	-	-	-
STOEN	54	58	48	13	41	39	8	-	54	39	-	-	-	-	-
	36	39	46	10	53	17	2	-	43	23	-	-	-	-	-
	65	52	55	9	50	37	4	-	51	32	-	-	-	-	-
STRJO	-	-	-	-	-	-	-	14	23	-	-	-	-	-	-
	-	-	-	-	-	-	-	21	17	-	-	-	4	-	4
	-	-	-	-	-	-	-	40	27	-	-	-	-	-	-
TEPIS	-	-	-	3	6	33	26	28	22	15	-	11	-	-	-
TRIMI	-	2	12	6	11	24	21	20	20	19	-	-	-	-	-
YRJIL	-	-	-	-	-	-	-	-	34	5	4	18	21	10	26
Sum	413	539	585	431	913	996	729	844	761	620	193	218	121	73	122

February	16	17	18	19	20	21	22	23	24	25	26	27	28
BENOR	-	-	4	-	3	7	-	4	4	5	-	5	8
BERER	-	-	-	-	-	6	-	-	15	8	5	4	-
	-	-	-	-	-	14	-	-	16	11	25	17	-
BRIBE	19	-	-	2	9	22	15	-	-	2	-	-	9
	19	-	-	-	-	16	16	-	-	1	-	-	14
CASFL	-	-	-	1	-	-	24	36	22	23	-	-	7
	-	-	14	2	-	-	21	22	14	18	-	-	-
CRIST	-	1	25	-	5	4	16	18	20	12	-	-	3
	2	-	39	1	4	8	25	45	32	33	-	-	2
CSISZ	-	-	-	3	-	1	5	4	13	1	6	-	1
CURMA	-	-	-	-	-	-	-	-	-	-	5	-	-
ELTMA	-	-	-	-	-	-	11	22	20	19	9	-	-
GONRU	-	-	-	-	16	3	20	32	40	16	-	28	32
	-	-	-	-	10	4	23	23	19	13	-	25	32
GOVMI	-	-	-	9	-	4	1	13	27	2	15	-	-
HERCA	11	-	7	-	-	-	13	12	5	7	9	4	7
HINWO	-	-	-	-	-	-	-	39	-	34	5	-	7
IGAAN	-	10	-	-	-	-	4	-	-	-	3	18	-
	1	4	-	-	-	2	-	-	-	-	9	2	-
	-	-	-	2	-	-	1	4	5	6	2	2	-
JOBKL	-	-	-	-	-	-	-	-	-	-	-	-	-
KACJA	-	-	-	-	-	-	-	-	16	-	-	-	-
	-	-	-	-	-	-	1	4	7	12	10	-	-
	-	-	-	-	-	-	-	3	36	-	-	-	-
	-	-	-	-	-	-	-	-	14	14	9	-	-
KERST	-	33	6	-	49	-	-	-	42	66	61	-	67
LUNRO	-	-	-	-	-	-	-	-	-	-	-	-	43
MOLSI	-	-	-	-	-	-	-	55	32	75	14	-	70
	-	-	-	1	-	-	25	19	5	19	3	-	25
	-	-	-	-	6	8	10	7	7	8	6	7	7
MORJO	-	3	-	3	-	2	-	-	-	-	11	3	-
OTTMI	-	-	3	10	-	-	-	-	-	-	-	-	-
PERCZ	-	-	10	5	-	5	19	17	36	2	9	-	-
ROTEC	2	-	-	-	5	20	12	7	11	20	-	2	21
SCHHA	6	-	-	-	2	6	8	-	-	-	-	-	1
SLAST	-	-	-	-	-	-	-	2	17	18	9	-	-
STOEN	-	-	17	5	-	1	12	37	35	32	5	-	-
	-	-	11	4	-	1	13	18	20	27	-	-	-
	-	-	23	9	-	4	21	36	27	38	13	-	-
STRJO	12	-	-	-	10	16	14	-	-	-	-	-	4
	10	-	-	-	12	5	17	-	-	3	-	-	5
	19	-	-	-	16	29	27	-	-	-	-	-	5
TEPIS	-	-	-	-	-	-	-	-	-	-	-	-	-
TRIMI	-	-	-	-	-	-	-	7	13	5	8	-	-
YRJIL	22	19	19	10	11	2	6	6	4	-	-	15	2
Sum	123	70	178	67	158	190	380	492	574	550	251	132	372

Whereas the meteor season is gaining momentum on the southern hemisphere in February, the month is rather dull for northern hemisphere observers. The hourly rate is breaking down, the nights are getting shorter and the weather is only rarely cooperative with the observers. This year it was less dramatic, though: The observing conditions were nowhere really perfect, but most cameras collect around 15 observing nights, which is a fairly good result for February. In particular in the first decade we had clear skies at many observing sites, so that in single nights up to 36 cameras were active. In total we collected more than 11,000 meteors in over 3,000 hours of effective observing time – significantly more than in the previously best February in 2008.

Reporting on meteor showers in February is soon getting boring as the range of showers is rather modest. So we will have another look at the beta Herculids (418 BHE) and the pi Hydrids (101 PIH), which we found in our 2009 analysis of the IMO Video Meteor Database. We add the delta Leonids (DLE) from the IMO Working List, even though they were not recognized as an

independent shower in our analysis. The result is given in figure 1, whereby we omitted nights with less than 100 sporadic meteors.

The activity interval of the pi Hydrids fell into the time when the weather conditions were best, so that we could follow this shower well (166 shower meteors). With 5% of the sporadic meteor number, the pi Hydrids were less active than in 2010, where they shortly reached up to 10%.

Only the first part of the beta Herculids could be observed (99 shower meteors) this year – the second half of the activity interval fell victim of the poor weather. They showed a similar activity as in the previous year, but once more no pronounced activity profile. To obtain better profiles of such weak showers it is mandatory to average over different years.

With less than 5% of the sporadic meteor count, the delta Leonids (75 shower meteors) did not stand out of the sporadic background for most of their activity interval. Only in a single night (February 21/22) they reached about 10%, but the data set of that night was rather limited. In our long-term analysis of 2009, the radiant was noticeable between February 23 and 27.

The Antihelion source (1011 shower meteors) reached about 12% of the sporadic meteor counts throughout most of February..

Finally we want to present the spectacular meteor of February 6, 4:21 UT, which was recorded by Antal Igaz with his camera HUHOD. The picture on the right side shows the development of the meteor in steps of 0.2 seconds (five video frames) from top to bottom. Already at the start of detection, the meteoroid was broken into two pieces, which later fragmented on their own again.

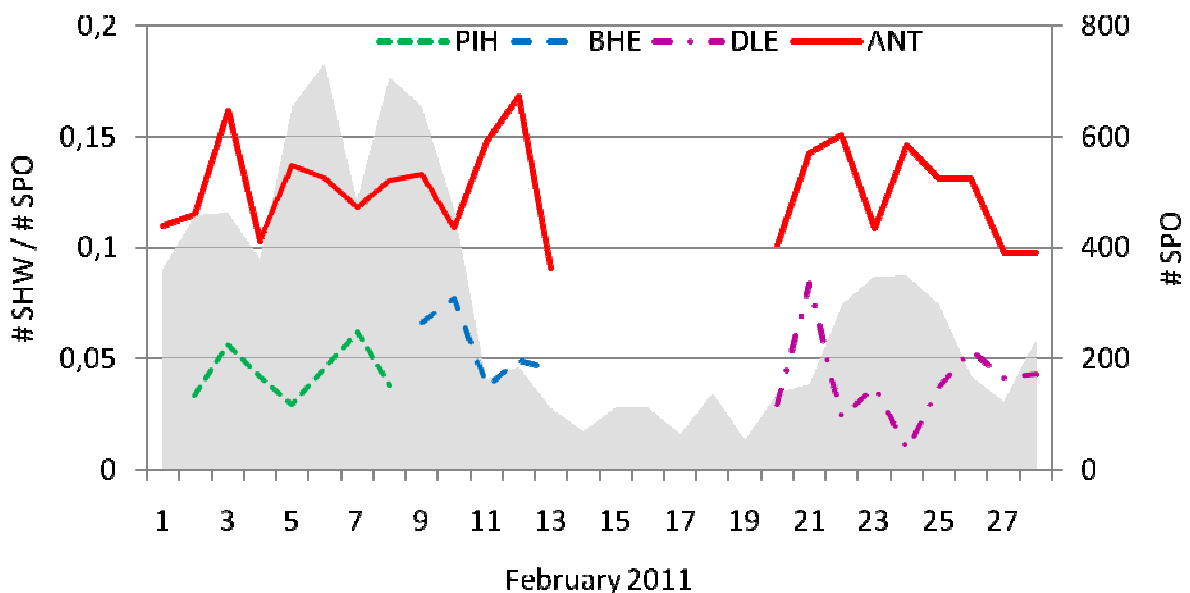
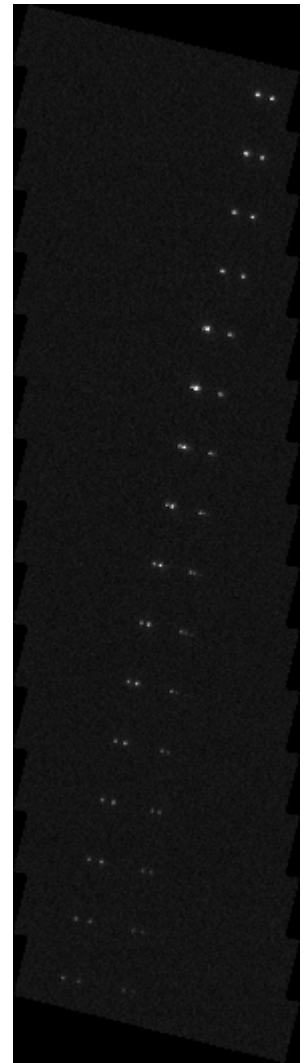


Figure 1: Activity profile of the pi Hydrids, beta Herculids, delta Leonids and the Antihelion source in February 2011. Depicted is the number of shower meteors divided by the number of sporadics in the same night. The absolute number of sporadic meteors per night is given in the background.