

Results of the IMO Video Meteor Network – November 2010

Sirko Molau, Abenstalstr. 13b, 84072 Seysdorf

2011/01/20

1. Observers

Code	Name	Place	Camera	FOV [° ²]	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	35.8	-	93	
			TIMES5 (0.95/50)	33	7.0	261	5	2.8	-	8	
BERER	Berko	Ludanyhalaszi	HULUD1 (0.95/3)	6500	3.8	2209	18	110.9	-	373	
			HULUD2 (0.95/2.8)	5977	4.2	2978	19	78.7	-	241	
BRIBE	Brinkmann	Herne	HERMINE (0.8/6)	2374	4.2	1084	13	28.6	-	114	
CASFL	Castellani	Monte Baldo	BMH1 (0.8/6)	2350	-	-	12	45.7	-	140	
			BMH2 (1.5/4.5)*	4243	-	-	21	83.8	-	321	
CRIST	Crivello	Valbrenvena	C3P8 (0.8/3.8)	5575	4.2	2525	16	89.2	155.0	431	
			STG38 (0.8/3.8)	5593	-	-	22	117.8	-	680	
CSISZ	Csizmadia	Zalaegerszeg	HUVCSE01 (0.95/5)	2439	-	-	19	91.2	-	303	
CURMA	Currie	Grove	MIC4 (0.8/6)	1471	5.2	3008	7	27.1	-	111	
ELTMA	Eltri	Venezia	MET38 (0.8/3.8)	5620	-	-	3	10.9	-	40	
GONRU	Goncalves	Tomar	TEMPLAR1 (0.8/6)*	2188	5.3	2331	17	126.3	230.6	694	
			TEMPLAR2 (0.8/6)*	2303	5.0	2397	18	123.6	274.5	539	
GOVMI	Govedic	Sredisce ob Dravi	ORION2 (0.8/8)	1471	6.0	3916	25	149.3	-	544	
HERCA	Hergenrother	Tucson	SALSA3 (1.2/4)*	4332	4.0	1471	30	203.5	151.5	725	
HINWO	Hinz	Brannenburg	AKM2 (0.85/25)*	754	5.7	1306	12	88.3	105.0	421	
IGAAN	Igaz	Baja	HUBAJ (0.8/3.8)	5600	4.3	3338	22	128.6	79.4	535	
		Hodmezovasarhely	HUHOD (0.8/3.8)	5609	4.2	3031	19	110.0	96.5	445	
		Budapest	HUPOL (1.2/4)	3929	3.5	1144	22	102.0	116.8	320	
JOBKL	Jobse	Oostkapelle	BETSY2 (1.2/85)*	1725	-	-	7	59.7	-	823	
			KLARA2 (1.2/85)*	1564	-	-	8	62.0	-	632	
KACJA	Kac	Kostanjevec Ljubljana Kammik	METKA (0.8/8)*	1381	4.0	2246	7	55.6	35.2	234	
			ORION1 (0.8/8)	1420	5.3	2336	15	24.0	-	112	
			REZIKA (0.8/6)	2307	5.0	2293	5	24.5	-	131	
			STEFKA (0.8/3.8)	5540	4.2	2882	5	16.8	-	49	
KERST	Kerr	Glenlee	GOCAM1 (0.8/3.8)	5238	4.2	2637	9	58.4	152.8	371	
LUNRO	Lunsford	Chula Vista	BOCAM (1.4/50)*	1860	-	-	21	153.5	-	1149	
MOLSI	Molau	Seysdorf	AVIS2 (1.4/50)*	1771	6.1	4182	10	60.2	139.2	674	
			MINCAM1 (0.8/8)	1477	4.9	1716	19	76.1	83.0	390	
			Ketzür	REMO1 (0.8/3.8)	5592	3.0	974	9	22.3	26.7	66
			REMO2 (0.8/3.8)	5635	4.3	2846	6	6.4	17.9	25	
			HUFUL (1.4/5)	2522	3.5	532	21	114.5	51.5	371	
MORJO	Morvai	Fülöpszallas	ORIE1 (1.4/5.7)	3837	-	-	23	141.6	-	600	
OTTMI	Otte	Pearl City	HUBEC (0.8/3.8)*	5448	3.4	1500	23	134.3	133.7	675	
PERZS	Perko	Becsehely	ARMEFA (0.8/6)	2369	4.8	1801	9	24.6	55.0	85	
ROTEC	Rothenberg	Berlin	DORAEMON (0.8/3.8)	5537	3.0	846	15	33.2	-	108	
SCHHA	Schremmer	Niederkrüchten	KAYAK1 (1.8/28)	596	-	-	8	18.9	-	48	
SLAST	Slavec	Ljubljana	MIN38 (0.8/3.8)	5631	4.1	2407	14	57.0	-	234	
STOEN	Stomeo	Scorze	NOA38 (0.8/3.8)	5609	-	-	14	49.3	-	219	
			SCO38 (0.8/3.8)	5598	-	-	13	46.0	-	225	
			OND1 (1.4/50)*	2195	5.8	4595	2	7.3	10.7	206	
STORO	Stork	Ondrejov	MINCAM2 (0.8/6)	2357	-	-	5	4.4	-	20	
STRJO	Strunk	Herford	MINCAM3 (0.8/12)	728	-	-	12	23.1	-	96	
			MINCAM5 (0.8/6)	2344	-	-	4	7.9	-	40	
			HUMOB (0.8/6)	2375	4.9	2258	20	126.0	157.7	660	
TEPIS	Tepliczky	Budapest	SRAKA (0.8/6)*	2222	-	-	23	94.6	-	379	
TRIMI	Triglav	Velenje	FINEXCAM (0.8/6)	2337	-	-	10	67.6	-	273	
YRJIL	Yrjölä	Kuusankoski									
Sum							30	3323.9		15973	

* active field of view smaller than video frame

2. Observing Times (h)

November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
BENOR	-	-	-	-	6.2	-	2.8	-	3.2	-	0.5	2.0	4.4	-	-
BERER	-	-	-	-	-	-	-	-	-	-	-	0.3	1.1	-	-
BRIBE	5.3	6.4	-	7.4	10.8	9.0	-	-	-	2.3	3.5	7.3	11.4	4.9	8.6
CASFL	3.3	2.5	1.5	3.8	10.0	6.3	-	-	-	1.6	2.6	5.3	9.4	4.2	5.2
BRIBE	-	-	-	-	-	-	2.0	1.1	-	5.1	2.6	-	-	1.2	2.4
CASFL	-	6.4	5.1	8.8	7.8	0.7	-	1.7	0.3	4.7	4.7	3.0	1.8	0.7	-
CRIST	-	9.9	6.9	10.7	10.0	1.2	0.4	1.3	1.5	9.9	4.5	2.3	0.7	0.4	-
CRIST	-	7.1	10.1	-	1.2	-	-	-	1.7	7.4	3.6	-	-	-	-
CSISZ	0.5	7.1	11.1	10.1	3.5	-	-	1.0	2.5	5.6	5.2	0.5	0.5	2.0	-
CSISZ	1.8	-	-	-	7.6	4.7	0.9	-	5.8	4.5	1.6	3.0	8.2	11.4	11.0

CURMA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ELTMA	-	-	-	5.7	-	-	-	-	-	-	-	-	-	0.5	-
GONRU	10.5	10.5	11.8	10.7	10.7	1.0	8.8	-	8.2	8.2	-	-	-	-	5.2
	10.0	8.1	9.7	10.9	10.8	4.2	7.4	-	9.2	6.9	-	-	-	7.5	5.3
GOVMI	0.8	0.5	8.2	11.2	7.4	10.0	2.9	1.3	6.4	6.5	5.9	9.8	10.9	12.8	12.2
HERCA	9.3	8.3	7.0	9.5	5.9	8.2	7.7	8.0	2.4	6.2	9.4	8.2	8.2	7.6	6.7
HINWO	-	-	-	8.8	2.3	-	-	7.2	9.8	-	0.8	8.2	10.9	10.9	-
IGAAN	3.4	4.2	7.4	7.7	9.5	7.8	7.1	-	5.5	8.7	10.6	4.0	9.3	9.6	6.2
	5.3	3.8	7.9	5.7	8.4	5.5	2.3	-	4.8	5.1	4.5	6.9	8.1	9.8	7.4
	6.3	1.8	5.3	8.3	8.1	8.7	3.5	-	1.9	1.2	2.5	2.8	5.9	10.3	8.8
JOBKL	5.0	-	-	-	-	5.1	-	-	-	10.0	10.4	-	-	-	11.2
	4.7	-	-	-	-	4.4	-	-	-	6.9	9.9	-	-	6.7	10.1
KACJA	-	-	9.0	-	8.7	4.0	-	-	7.5	-	-	-	8.5	9.7	-
	-	-	-	2.5	3.9	0.3	-	0.3	1.0	1.5	0.6	-	-	2.9	3.0
	-	-	-	8.0	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	4.6	-	-	-	-	-	-	-	-	0.3	4.9	-
KERST	-	7.6	-	-	8.5	8.6	-	-	-	5.2	-	-	7.6	-	-
LUNRO	7.9	8.1	8.1	6.9	6.5	10.2	-	-	5.6	8.3	6.4	9.3	9.2	4.7	10.5
MOLSI	8.5	5.9	1.3	8.7	7.8	-	-	-	1.3	-	-	-	11.7	7.8	-
	4.6	3.0	4.8	4.5	5.4	-	-	2.0	1.7	2.7	0.4	4.5	11.9	8.0	-
	-	-	-	-	-	0.6	-	-	4.1	-	2.9	1.2	-	2.1	-
	-	0.6	-	-	-	-	0.2	-	0.2	0.3	2.1	-	-	3.0	-
MORJO	3.7	7.0	5.6	5.8	11.3	7.9	5.4	-	3.2	5.5	4.4	4.0	9.0	11.4	8.7
OTTMI	7.3	10.6	2.7	4.8	8.4	8.5	4.9	6.3	7.6	6.8	6.1	-	-	-	7.3
PERCZ	3.2	-	8.0	8.8	10.5	8.8	3.7	1.0	4.9	7.7	5.9	1.9	10.1	10.7	11.6
ROTEC	-	-	-	-	-	5.5	-	-	7.3	-	1.6	-	-	4.3	-
SCHHA	-	0.3	-	0.4	-	0.5	2.1	1.8	-	2.1	4.1	-	-	0.8	5.3
SLAST	-	-	-	-	5.4	-	-	-	-	-	1.2	-	0.8	1.5	2.5
STOEN	-	-	11.8	6.8	3.1	-	-	1.1	0.7	1.8	1.8	10.3	-	3.1	-
	-	-	12.4	3.5	1.1	-	-	0.3	1.0	2.6	0.3	5.9	-	4.1	-
	-	-	10.5	3.3	1.8	-	-	1.2	0.3	2.5	1.7	8.5	-	4.6	-
STORO	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-
STRJO	-	-	-	-	-	-	0.3	0.3	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	0.9	-	1.3	0.6	-	-	1.0	1.2
	-	-	-	-	-	-	2.5	0.2	-	-	-	-	-	-	-
TEPIS	8.5	5.6	3.7	5.8	12.3	7.8	1.9	-	3.4	6.4	5.0	-	12.7	9.9	12.5
TRIMI	-	0.2	4.8	8.8	9.8	7.0	-	0.8	1.5	4.2	1.3	7.2	8.2	9.2	3.7
YRJIL	2.3	-	-	-	-	2.4	12.7	9.6	-	-	-	-	-	-	-
Sum	112.2	129.5	174.7	202.5	224.7	148.9	79.5	47.4	114.5	159.7	129.2	116.4	180.8	204.2	166.6

November	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
BENOR	-	3.3	2.9	1.5	-	-	1.2	4.2	3.6	-	-	-	-	-	-
	-	0.3	0.8	0.3	-	-	-	-	-	-	-	-	-	-	-
BERER	7.9	-	-	-	-	-	-	5.3	7.5	1.9	-	3.5	-	4.7	3.2
	4.7	-	-	-	0.4	-	-	4.2	4.8	5.5	1.5	-	-	1.9	-
BRIBE	2.2	-	-	0.7	4.0	-	-	-	-	-	1.5	5.1	0.3	-	0.4
CASFL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	0.3	-	-	4.2	3.3	5.4	3.3	1.7	-	1.9	4.0	-
CRIST	5.2	8.2	3.8	2.7	-	-	9.5	7.5	-	0.6	10.8	-	4.6	5.2	-
	7.2	9.8	6.0	4.0	-	-	10.1	10.2	10.0	0.6	-	-	4.3	6.0	-
CSISZ	0.3	-	2.8	0.3	-	-	-	6.8	9.0	6.6	-	2.5	-	2.4	-
CURMA	-	-	1.1	-	-	-	-	5.3	-	4.2	3.8	3.2	5.6	-	3.9
ELTMA	-	-	-	-	-	-	-	-	4.7	-	-	-	-	-	-
GONRU	-	0.1	-	-	2.2	-	-	-	9.5	7.3	6.9	10.3	4.4	-	-
	-	-	-	-	3.9	1.1	-	-	3.8	6.9	1.8	10.3	5.8	-	-
GOVMI	-	1.0	6.0	3.3	-	-	5.3	4.5	10.3	6.2	-	2.9	0.3	2.7	-
HERCA	6.9	5.2	6.2	6.7	4.9	3.8	7.2	5.8	3.0	2.2	6.5	8.7	8.7	6.9	8.2
HINWO	-	-	-	11.3	-	-	-	-	-	3.3	-	5.2	-	9.6	-
IGAAN	1.5	-	8.7	-	-	-	-	4.0	1.9	0.1	-	7.7	-	3.5	0.2
	5.5	-	4.8	-	-	-	1.7	-	5.7	-	-	6.8	-	-	-
	5.5	-	0.6	-	-	-	-	4.4	2.0	3.0	-	5.7	-	2.6	2.8
JOBKL	-	-	-	-	-	-	-	-	-	-	-	9.0	9.0	-	-
	-	-	-	-	-	-	-	-	-	-	-	9.4	9.9	-	-
KACJA	-	-	-	-	-	-	-	-	8.2	-	-	-	-	-	-
	-	-	-	1.2	-	-	0.5	0.3	1.2	3.4	-	-	-	1.4	-
	-	-	-	0.8	-	-	-	-	7.4	6.9	-	1.4	-	-	-
	-	-	-	-	-	-	-	-	6.4	-	-	0.6	-	-	-

KERST	6.8	-	-	-	-	-	-	-	0.5	6.9	6.7	-	-	-	-
LUNRO	10.4	0.5	6.6	0.3	-	-	-	-	-	-	7.7	8.3	-	8.4	9.6
MOLSI	-	-	-	-	-	-	-	-	-	4.7	-	2.5	-	-	-
	-	-	-	4.3	-	-	-	-	0.2	6.7	2.7	3.0	-	5.5	0.2
	-	-	-	-	-	-	-	-	3.5	-	-	0.8	-	0.2	6.9
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MORJO	3.7	0.7	6.6	-	-	-	-	0.9	-	1.0	-	7.0	-	1.7	-
OTTMI	5.7	2.1	3.9	7.1	5.7	-	-	1.1	6.5	-	7.1	8.1	7.6	5.4	-
PERCZ	0.9	-	2.8	2.5	-	-	2.6	4.7	9.6	6.0	-	4.0	-	4.4	-
ROTEC	-	-	-	-	-	-	-	-	1.4	-	0.3	1.8	-	0.7	1.7
SCHHA	-	-	0.3	3.0	3.5	-	-	-	-	-	1.2	6.6	-	-	1.2
SLAST	-	-	-	-	-	-	-	0.7	4.0	2.8	-	-	-	-	-
STOEN	-	4.3	-	0.3	-	-	-	0.3	6.8	-	-	-	-	4.8	-
	-	4.1	-	2.1	-	-	-	1.3	10.4	0.2	-	-	-	-	-
	-	4.2	-	2.5	-	-	-	1.6	3.3	-	-	-	-	-	-
STORO	-	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-
STRJO	0.7	-	-	-	-	-	-	-	-	-	-	1.5	-	-	1.6
	-	-	-	0.3	-	-	-	0.6	1.8	3.3	3.3	6.9	-	-	1.9
	-	-	-	-	-	-	-	-	-	-	-	3.3	-	-	1.9
TEPIS	4.3	-	-	5.5	-	-	-	7.9	1.3	5.7	-	4.2	-	-	1.6
TRIMI	-	0.3	0.3	4.0	-	-	3.2	0.5	10.3	3.3	-	4.5	0.3	1.2	-
YRJIL	-	-	-	-	-	-	-	-	-	6.0	1.0	8.1	7.0	13.7	4.8
Sum	79.4	44.1	67.5	65.0	24.6	4.9	45.5	85.4	164.0	108.6	64.5	162.9	69.7	96.9	50.1

3. Results (Meteors)

November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
BENOR	-	-	-	-	11	-	8	-	9	-	1	6	8	-	-
	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
BERER	11	15	-	29	29	23	-	-	-	6	6	16	49	26	41
	9	7	1	11	29	17	-	-	-	2	6	12	36	27	20
BRIBE	-	-	-	-	-	-	15	4	-	15	10	-	-	3	7
CASFL	-	24	14	31	28	3	-	7	1	11	13	4	2	2	-
	-	34	25	48	48	2	1	3	6	45	16	7	1	1	-
CRIST	-	48	51	-	4	-	-	-	6	31	14	-	-	-	-
	1	45	65	104	13	-	-	2	8	49	20	1	2	7	-
CSISZ	4	-	-	-	22	12	1	-	30	12	4	13	35	43	35
CURMA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ELTMA	-	-	-	20	-	-	-	-	-	-	-	-	-	1	-
GONRU	88	58	77	85	91	2	32	-	41	38	-	-	-	-	14
	47	43	46	63	56	22	27	-	33	23	-	-	-	37	14
GOVMI	2	2	30	40	38	25	6	3	46	35	12	23	49	51	51
HERCA	38	20	31	32	17	26	31	34	6	18	37	35	26	16	19
HINWO	-	-	-	25	8	-	-	29	76	-	1	44	62	53	-
IGAAN	8	10	28	35	53	43	20	-	25	60	26	13	46	39	28
	11	5	28	25	29	21	10	-	19	32	12	25	31	39	33
	13	8	20	29	31	19	9	-	13	6	5	14	19	31	24
JOBKL	55	-	-	-	-	62	-	-	-	140	144	-	-	-	223
	50	-	-	-	-	41	-	-	-	66	97	-	-	62	159
KACJA	-	-	25	-	45	18	-	-	24	-	-	-	48	46	-
	-	-	-	6	11	1	-	1	5	18	2	-	-	10	22
	-	-	-	56	-	-	-	-	-	-	-	-	4	-	-
	-	-	-	11	-	-	-	-	-	-	-	-	2	20	-
KERST	-	54	-	-	54	42	-	-	-	31	-	-	64	-	-
LUNRO	64	71	71	56	58	51	-	-	59	62	59	70	72	31	83
MOLSI	81	52	9	75	57	-	-	-	8	-	-	-	204	146	-
	17	17	11	18	17	-	-	3	2	16	2	47	79	50	-
	-	-	-	-	-	2	-	-	11	-	11	1	-	4	-
	-	2	-	-	-	-	1	-	1	1	10	-	-	10	-
MORJO	11	12	20	18	35	21	14	-	17	28	14	16	32	42	26
OTTMI	41	36	13	21	39	37	27	27	28	26	28	-	-	-	31
PERCZ	10	-	37	56	60	25	9	2	46	61	15	8	67	66	79
ROTEC	-	-	-	-	-	18	-	-	26	-	6	-	-	12	-
SCHHA	-	1	-	1	-	1	4	3	-	9	11	-	-	3	22
SLAST	-	-	-	-	19	-	-	-	-	-	1	-	2	2	15
STOEN	-	-	64	16	5	-	-	2	4	13	3	38	-	25	-

	-	-	62	16	6	-	-	1	4	16	1	18	-	20	-
	-	-	60	11	5	-	-	2	1	27	6	32	-	20	-
STORO	-	91	-	-	-	-	-	-	-	-	-	-	-	-	-
STRJO	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	4	-	6	2	-	-	4	6
	-	-	-	-	-	-	11	1	-	-	-	-	-	-	-
TEPIS	36	22	20	24	67	23	7	-	22	36	12	-	93	82	75
TRIMI	-	1	18	35	43	12	-	3	9	22	4	25	40	39	11
YRJIL	10	-	-	-	-	3	73	42	-	-	-	-	-	-	-
Sum	607	678	826	997	1028	572	308	175	586	961	611	469	1074	1070	1038

November	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
BENOR	-	10	11	5	-	-	2	9	13	-	-	-	-	-	-
	-	1	3	2	-	-	-	-	-	-	-	-	-	-	-
BERER	24	-	-	-	-	-	-	25	26	5	-	9	-	24	9
	13	-	-	-	1	-	-	13	14	10	4	-	-	9	-
BRIBE	3	-	-	2	22	-	-	-	-	-	5	25	1	-	2
CASFL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	1	-	-	19	17	12	8	5	-	12	10	-
CRIST	56	21	13	5	-	-	48	25	-	1	58	-	33	17	-
	62	42	35	8	-	-	55	62	44	3	-	-	29	23	-
CSISZ	1	-	8	1	-	-	-	17	27	23	-	8	-	7	-
CURMA	-	-	6	-	-	-	-	20	-	22	11	9	20	-	23
ELTMA	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-
GONRU	-	1	-	-	11	-	-	-	30	33	23	60	10	-	-
	-	-	-	-	16	6	-	-	13	22	8	46	17	-	-
GOVMI	-	3	14	9	-	-	14	10	41	22	-	9	1	8	-
HERCA	31	28	29	38	17	11	17	14	6	5	22	28	32	30	31
HINWO	-	-	-	54	-	-	-	-	-	8	-	14	-	47	-
IGAAN	5	-	33	-	-	-	-	19	4	2	-	26	-	11	1
	14	-	44	-	-	-	12	-	32	-	-	23	-	-	-
	12	-	3	-	-	-	-	17	8	8	-	12	-	14	5
JOBKL	-	-	-	-	-	-	-	-	-	-	-	125	74	-	-
	-	-	-	-	-	-	-	-	-	-	-	95	62	-	-
KACJA	-	-	-	-	-	-	-	-	28	-	-	-	-	-	-
	-	-	-	8	-	-	2	1	6	16	-	-	-	3	-
	-	-	-	5	-	-	-	-	31	28	-	7	-	-	-
	-	-	-	-	-	-	-	-	15	-	-	1	-	-	-
KERST	49	-	-	-	-	-	-	-	2	34	41	-	-	-	-
LUNRO	81	2	35	1	-	-	-	-	-	-	58	46	-	59	60
MOLSI	-	-	-	-	-	-	-	-	-	27	-	15	-	-	-
	-	-	-	32	-	-	-	-	1	21	6	9	-	41	1
	-	-	-	-	-	-	-	-	17	-	-	3	-	1	16
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MORJO	10	1	12	-	-	-	-	16	-	3	-	11	-	12	-
OTTMI	37	8	13	36	22	-	-	4	13	-	30	39	32	12	-
PERCZ	1	-	8	5	-	-	7	12	48	30	-	8	-	15	-
ROTEC	-	-	-	-	-	-	-	-	10	-	1	3	-	1	8
SCHHA	-	-	1	6	12	-	-	-	-	-	4	24	-	-	6
SLAST	-	-	-	-	-	-	-	1	5	3	-	-	-	-	-
STOEN	-	30	-	2	-	-	-	1	24	-	-	-	-	7	-
	-	28	-	7	-	-	-	4	34	2	-	-	-	-	-
	-	33	-	11	-	-	-	4	13	-	-	-	-	-	-
STORO	-	-	115	-	-	-	-	-	-	-	-	-	-	-	-
STRJO	3	-	-	-	-	-	-	-	-	-	-	7	-	-	6
	-	-	-	1	-	-	-	2	5	14	14	30	-	-	8
	-	-	-	-	-	-	-	-	-	-	-	18	-	-	10
TEPIS	15	-	-	48	-	-	-	29	2	26	-	18	-	-	3
TRIMI	-	2	2	10	-	-	20	2	46	14	-	17	1	3	-
YRJIL	-	-	-	-	-	-	-	-	-	20	2	28	41	45	9
Sum	417	210	385	297	101	17	196	324	589	410	292	773	365	399	198

After the proverbial „golden October“ we run not fully unexpected into the „black mood“: In the first week of November, the weather was still fine, so that more than 30 out of 48 cameras were active in selected nights. But then the weather deteriorated. After the middle of November, clear

skies became rare. Only a small data set could be collected during the Leonids, and by November 21 the rock-bottom was reached: Even though the IMO network is spread over three continents by now, there were just two active cameras that night, which recorded no more than 17 meteors in less than 5 hours observing time. So we almost quit the interrupt-free observation series that started in Mai 2007. Observers in Germany and Slovenia were in particular affected by the bad weather, but also the typically more spoiled Italian and Portugese observers experienced only mediocre conditions.

Both of our American observers could not complain, though. On the contrary: Carl Hergenrother of Tucson smashed the record series of 45 observing nights in a row back from 2003 by operating his camera SALSA3 without interruption starting from August 27. His series continued well into December, when he had reached more than 80 nights in a row. We are curious how long this series will persist.

Our Hungarian network enjoyed quite nice weather conditions as well. It grew again by one camera station: A team around Szilard Csizmadia has been operating HUVCS01 since early November. The last two digits hint on further plans of these meteor observers.

In Slovenia, the number of cameras grew as well, after Mihaela Triglav resumed operation of her camera SRAKA after a longer break. In fact, the camera has been observing for over a year already. Now all the data were archived.

Looking at the monthly totals, the overall output of November was noteworthy thanks to the first half of the month. With more than 3,300 hours of effective observing time and 16,000 meteors, we surpassed the previously best November result by 50%. The monthly average of 4.8 meteors per hour remained unchanged to the preceding year.

The organization of the IMO network changed significantly over the past few weeks. As mentioned in the previous report, one person was simply overcharged with collecting, checking and archiving the data of up to fifty cameras. With Erno Berko, Stefano Crivello, Enrico Stomeo and Antal Igaz we now have a team of analyzers that share the work load with me. More observers from the IMO network are ready to join the team. Beside the shared work load these observers gain more experience by analyzing the data of other cameras. In return they can use this knowlegde for their own observations, and the number of competent contacts for questions on MetRec and the IMO network is growing.

With respect to meteor showers, the Leonids were the highlight of the month. There were no predictions for enhanced activity, but in recent years this shower surprised the observers more than once with variable rates. The quick-look analysis of visual observations by IMO yielded ZHR values of 15 and more between the morning hours of November 17 and noon at November 19. Near midnight on November 17/18 a short peak with rates twice as high was recorded, but the data set was rather sparse (71 Leonids).

In the video data, the maximum occurred one day later (figure 1), but also here the data set on November 17/18 and 18/19 was rather patchy (56 resp. 127 Leonids). November 21 was not considered at all because of the lack of data.

The few active cameras observed more or less in cloud gaps only, which impacts the result significantly. If there are more data collected after midnight, for example, the percentage of Leonids will increase automatically. Due to lack of data, a more detailed analysis of the two nights in question was not feasible.

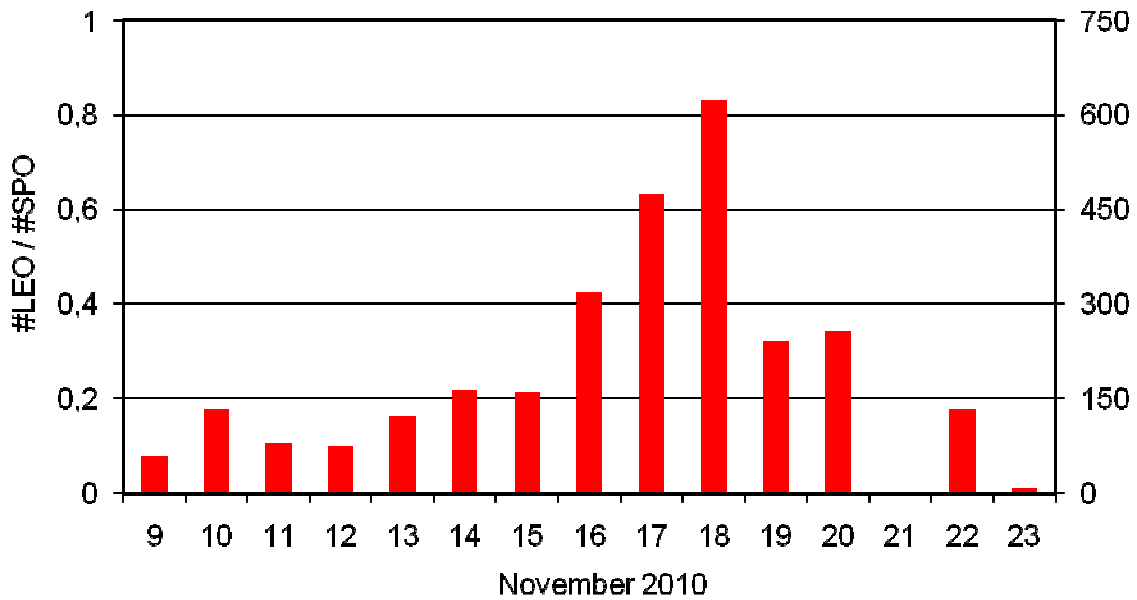


Figure 1: Activity profile of the Leonids 2010. Presented is the number of Leonids per night, divided by the number of Sporadics. The shaded area in the background represents the number of sporadic meteors and characterizes the size of the corresponding data set.

With the Andromedids (18 AND) and November Orionids (250 NOO), we had confirmed two more minor November meteor showers in our 2009 analysis. The Andromedids showed a relatively flat profile with only a minor peak of video rate one on November 13. The November Orionids, on the other hand, showed a continuous rise in activity from the middle of the month till the maximum on November 30 with a video rate of three. It was followed by a steep decent in activity.

To verify both showers, the shower assignment of all recorded meteors was renewed. Thereafter, the ratio of shower to sporadic meteors was plotted as usual (figure 2).

The 2010 observations fit well to the preceding results. The overall 270 Andromedids hardly stand out from the sporadic background with their approximately constant rate between November 5 and 26. The 416 November Orionids, on the other hand, show the expected clear uplift in activity towards the end of November.

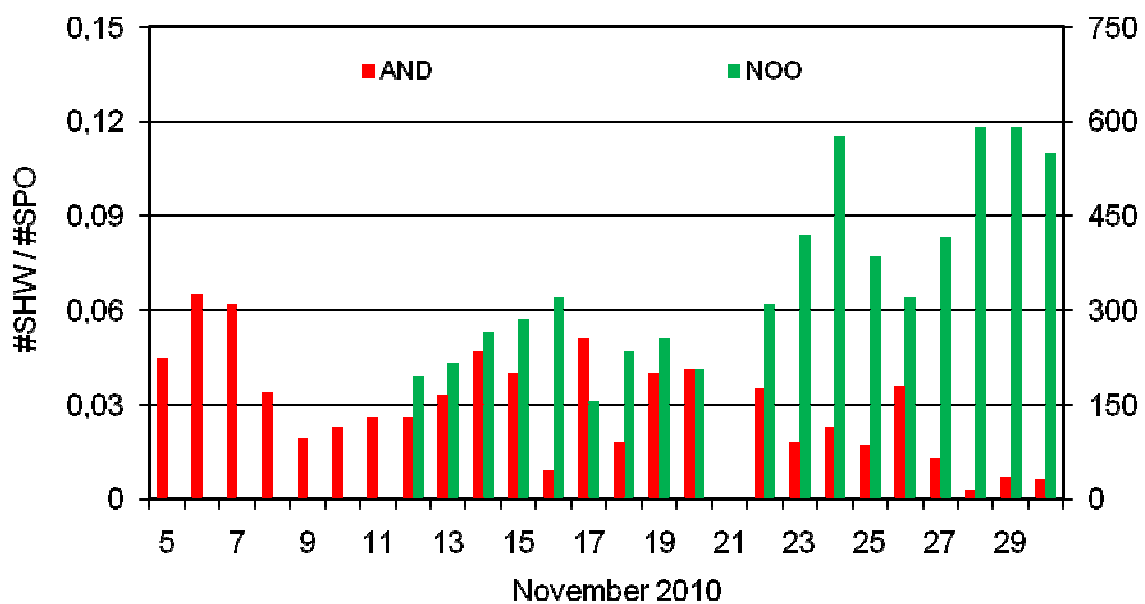


Figure 2: Activity profile of the Andromedids and November Orionids in November 2010. The ratio between shower and sporadic meteors per night is presented.