Appendix A. Unknown objects observed during out runs at ESO/MPG, Swope and INT.

Table A.1: The asteroids officialy discovered at ESO/MPG (according to MPC DISCSTATUS Jan 2011). In the first line we give orbital elements calculated with FIND_ORB and observational data from our run, while in the second line we include MPC orbital data derived from all available observations.

Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBSO004	2008 EB98	2.94	0.12	7.7	1.58	16.8	18	2d	0.07	20.0	10	176	0.54
		2.90	0.16	7.1		17.2	25	10d					
VBSO008	2008 EF155	2.73	0.05	11.4	1.61	17.3	16	2d	0.14	20.5	11	176	0.60
VBSO036	2008 EG162	2.86	0.21	1.9	1.28	18.5	7	1d	0.24	20.7	2	173	0.54
		2.79	0.18	2.3		18.2	15	23d					
VBSO052	2008 EV168	2.49	0.06	3.3	1.33	17.5	8	1d	0.10	20.1	2	163	0.57
		2.41	0.16	2.7		18.2	16	24d					
VBSO059	2008 EF151	2.36	0.01	7.4	1.33	17.7	8	1d	0.06	20.3	2	163	0.62
		2.33	0.10	7.5		18.1	24	36d					
VBTO002	2008 ED145	2.25	0.14	4.7	0.93	18.7	11	1d	0.18	20.3	-3	161	0.54
		2.60	0.25	5.1		18.5	23	16d					
VBTO005	2008 ED144	3.43	0.21	9.7	1.76	16.3	30	3d	0.09	20.5	-3	162	0.46
		3.22	0.07	10.5		16.3	40	16d					
VBTO008	2008 EC144	2.23	0.17	7.8	0.86	17.4	14	1d	0.37	20.7	-3	162	0.63
		2.23	0.15	8.1		17.7	30	3d					
VBTO011	2008 EY131	2.54	0.21	3.8	1.03	17.7	30	3d	0.12	20.2	-4	162	0.55
		2.42	0.07	4.4		17.4	66	3y					
VBTO012	2008 EB145	3.08	0.22	8.7	1.39	15.8	22	2d	0.26	21.0	-4	162	0.45
VBTO013	2008 EA145	2.79	0.20	5.6	1.22	17.9	14	1d	0.09	20.4	-4	162	0.49
		3.23	0.07	14.6		15.9	26	16d					
VBTO015	2008 EE145	3.12	0.07	9.2	1.92	16.7	22	2d	0.37	20.6	-3	161	0.46
VBTO021	2008 EN145	2.49	0.21	21.6	1.02	16.2	16	2d	0.10	19.9	-3	162	0.64
		2.24	0.17	6.6		17.5	51	8y					
VBTO022	2008 EK145	2.38	0.38	8.3	0.49	16.9	30	3d	0.13	20.4	-3	162	0.59
VBTO023	2008 EH155	4.11	0.48	10.7	1.17	15.3	22	2d	0.13	20.3	-3	162	0.46
		2.99	0.18	11.3		15.6	29	16d					
VBTO024	2008 EJ145	2.25	0.09	3.8	1.05	17.4	30	3d	0.16	20.4	-3	162	0.59
		2.59	0.16	17.0		16.8	72	5y					
VBTO025	2006 WO37	2.31	0.09	4.4	1.11	18.5	16	2d	0.20	20.6	-3	162	0.55
		2.56	0.08	6.9		17.2	53	5y					
VBTO029	2008 EH145	2.99	0.13	11.1	1.60	17.4	16	2d	0.16	20.6	-4	162	0.52
		3.02	0.14	11.1		17.6	24	16d					
VBTO043	2008 EL145	2.47	0.07	6.1	1.29	17.9	16	2d	0.26	20.9	-4	162	0.55
VBTO055	2008 EO145	2.43	0.05	3.0	1.31	17.7	16	2d	0.08	20.4	-3	162	0.53
VBTO063	2008 EP145	2.08	0.02	6.7	1.02	18.3	15	2d	0.17	20.4	-3	162	0.64
		2.29	0.20	6.9		18.4	37	16d					
VBTU011	2008 EA84	2.90	0.41	14.5	0.71	15.2	4	1d	0.05	20.7	-6	192	0.50

Table A.1 (continued) – Asteroids officially discovered at ESO/MPG.

Acronym	Designation	a	e	i	MOID	H	pos	arc	σ	R	β	ϵ	μ
VBTU012	2008 EX154	2.66	0.35	7.0	0.74	15.7	10	2d	0.09	20.6	-6	192	0.53
		2.77	0.06	5.1		16.8	32	10y					
VBTU013	2008 EU154	2.23	0.05	5.2	1.12	19.0	9	2d	0.27	21.0	-6	192	0.62
VBTU014	2008 EY83	2.06	0.16	4.2	0.74	20.4	5	1d	0.31	21.1	-6	192	0.65
VBTU015	2008 EZ83	3.06	0.18	5.2	1.52	17.2	9	2d	0.12	20.2	-6	192	0.50
		3.10	0.08	6.2		17.0	13	14d					
VBTU016	2008 EW154	2.04	0.31	5.0	0.41	17.7	10	2d	0.13	20.9	-6	192	0.70
VBTU017	2008 EV154	2.55	0.02	15.4	1.49	17.9	10	2d	0.21	21.1	-6	192	0.64
VBTU020	2008 EC145	2.14	0.13	1.8	0.87	19.4	6	1d	0.32	20.8	-3	161	0.55
VBTU049	2008 EL154	2.61	0.22	9.6	1.04	19.5	12	1d	0.16	21.2	-4	189	0.65
VBTU052	2008 EE155	2.56	0.23	6.6	0.97	17.0	12	2d	0.18	21.2	-4	189	0.58
		2.67	0.29	5.8		17.3	17	3d					
VBTU054	2008 ED155	3.05	0.15	3.3	1.61	17.9	18	2d	0.30	21.0	-4	189	0.51
VBTU056	2008 EK154	2.99	0.02	3.7	1.93	17.5	14	2d	0.26	21.2	-4	189	0.52
		2.81	0.31	5.4		16.4	22	3d					
VBTU057	2008 EC155	3.06	0.05	9.3	1.93	17.6	15	2d	0.33	21.3	-4	189	0.53
		3.04	0.09	10.3		17.5	13	3d					
VBTU058	2008 EA155	2.60	0.02	7.8	1.56	17.9	22	3d	0.17	21.1	-4	189	0.60
		2.60	0.02	7.9		17.9	22	3d					
VBTU059	2008 EJ154	2.86	0.31	16.9	1.01	16.3	24	3d	0.17	21.0	-4	189	0.54
		2.89	0.08	11.5		17.0	24	3d					
VBTU060	2008 EB155	3.11	0.14	9.4	1.66	16.5	23	3d	0.24	21.3	-4	189	0.49
		3.20	0.05	7.7		17.0	23	3d					
VBTU061	2008 EZ154	2.25	0.09	3.0	1.06	19.3	10	1d	0.13	21.1	-4	189	0.67
VBTU062	2008 EY154	3.03	0.19	8.9	1.46	17.2	15	2d	0.16	20.8	-4	189	0.55
VBTU063	2008 EK155	2.27	0.23	2.8	0.75	17.7	12	1d	0.25	21.2	-4	188	0.65
VBTU064	2008 EJ155	2.20	0.14	4.2	0.89	19.6	12	1d	0.15	20.8	-4	188	0.66
VBTU074	2008 EG155	2.59	0.05	2.4	1.48	18.5	11	2d	0.13	21.4	-4	189	0.57
VBTU089	2008 EL155	2.85	0.04	9.3	1.75	17.9	11	2d	0.21	21.4	-4	189	0.55
		2.86	0.09	8.0		18.3	15	9d					
VBTU090	2008 EA98	2.48	0.10	4.7	1.24	19.1	3	1d	0.10	21.4	-4	189	0.61
VBTU101	2008 EX152	2.53	0.15	15.4	1.16	16.0	14	1d	0.14	20.4	9	135	0.25
		2.62	0.16	14.0		16.4	44	3y					
VBTU104	2008 EH168	2.62	0.16	6.6	1.21	18.1	9	1d	0.29	20.7	-3	161	0.50
		2.02	0.24	2.6		20.4	17	34d					
VBTU107	2008 EF145	2.67	0.03	4.3	1.60	17.5	17	2d	0.30	20.8	-4	161	0.50

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Table A.1 (continued) – Asteroids officially discovered at ESO/MPG.

Acronym	Designation	a	e	i	MOID	H	pos	arc	σ	R	β	ϵ	μ
VBTU113	2008 EG144	2.31	0.38	5.1	0.43	16.1	13	1d	0.12	20.4	0	163	0.59
VBTU124	2008 EJ168	2.80	0.04	2.8	1.68	17.0	21	3d	0.27	20.9	-1	163	0.49
		2.39	0.25	1.9		19.2	21	30d					
VBTU128	2008 EH144	3.03	0.61	4.4	0.19	17.3	19	3d	0.14	20.6	0	163	0.59
VBTU199	2008 EL144	1.77	0.16	14.8	0.56	18.5	21	2d	0.17	20.7	1	132	0.46
VBTU202	2008 EK144	2.52	0.03	9.2	1.45	17.1	21	2d	0.21	21.0	0	132	0.18
VBTU203	2008 EN144	1.84	0.05	23.5	0.75	18.4	14	2d	0.26	20.8	0	132	0.65
VBTU204	2008 EM144	2.79	0.18	21.6	1.28	16.0	16	2d	0.23	21.0	0	132	0.27
VBTU207	2008 EW152	2.09	0.17	2.1	0.76	18.2	13	1d	0.14	20.9	0	131	0.13
		2.80	0.01	3.9		16.6	63	8y					
VBTU208	2008 EE157	3.12	0.07	2.9	1.92	16.8	5	1d	0.06	20.4	1	171	0.51
		2.19	0.37	2.4		20.8	13	24d					
VBTU213	2008 EQ144	2.40	0.20	3.8	0.93	18.5	4	1d	0.07	19.7	1	172	0.59
		2.73	0.03	9.1		17.2	11	16d					
VBTU224	2008 EW144	2.34	0.10	5.8	1.12	17.9	5	1d	0.15	20.1	10	162	0.55

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Table A.2: Later identification of unknown asteroids observed at ESO/MPG.
First line represent our data and second line reffers to updated MPC data.

Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VB001	2008 FG67	2.52	0.16	6.0	1.11	17.3	8	1d	0.27	20.4	0	124	0.23
		2.68	0.22	7.2		17.5	28	48d					
VB014	2004 RZ319	2.22	0.23	7.4	0.75	16.7	8	1d	0.07	20.0	0	124	0.14
		3.16	0.02	14.2		15.3	77	11y					
VB018	2008 FZ110	2.63	0.12	4.5	1.33	16.6	8	1d	0.08	20.1	0	124	0.13
		2.52	0.10	4.6		17.2	46	9y					
VB024	2009 TG3	2.21	0.05	5.1	1.10	16.8	8	1d	0.07	20.4	-1	124	0.11
		2.62	0.21	7.2		16.5	47	7y					
VB027	2005 MW44	2.58	0.01	6.0	1.55	16.4	7	1d	0.08	20.5	0	123	0.07
		2.35	0.13	6.0		16.9	64	19y					
VB029	2007 AY28	2.68	0.03	2.5	1.59	16.6	6	1d	0.09	20.7	0	124	0.04
		2.76	0.04	2.6		17.0	46	14y					
VB036	2010 VT31	2.76	0.20	13.6	1.22	15.9	7	1d	0.09	21.1	-1	126	0.16
		3.13	0.22	17.2		15.5	41	7y					
VB037	2001 TB234	2.96	0.11	2.3	1.63	15.2	7	1d	0.07	20.3	-1	126	0.09
		5.14	0.06	3.3		13.3	61	8y					
VB039	2005 SA133	3.18	0.08	2.0	1.91	16.2	7	1d	0.08	20.7	-1	126	0.04
		2.80	0.03	1.8		17.0	52	14y					
VB045	2008 JF20	2.67	0.21	13.2	1.11	17.2	7	1d	0.06	20.2	-1	126	0.32
		2.59	0.19	13.7		16.9	46	78d					
VB047	2008 GD44	3.02	0.03	9.9	1.91	15.9	8	1d	0.06	20.5	-1	126	0.14
		3.06	0.04	10.2		16.0	20	43d					
VB057	2005 TB197	2.32	0.12	2.2	1.05	17.1	8	1d	0.18	21.1	-1	126	0.07
		2.64	0.13	2.4		17.5	29	9y					
VBOP008	2008 EF144	3.30	0.10	2.4	1.92	15.3	8	1d	0.11	19.6	-3	162	0.45
		3.20	0.08	2.5		16.2	54	8y					
VBOP013	2008 EM90	2.38	0.12	3.0	1.11	18.3	8	1d	0.06	20.5	-4	162	0.54
		2.53	0.03	3.9		17.6	45	20d					
VBOP017	2008 EB144	2.37	0.35	6.2	0.55	18.7	8	1d	0.13	19.3	-4	161	0.61
		3.14	0.05	27.1		15.8	45	12y					
VBOP023	2008 EJ144	2.49	0.04	0.9	1.39	17.1	8	1d	0.11	20.3	0	163	0.57
		2.40	0.13	0.6		17.7	19	15d					
VBOP024	2008 EL163	2.72	0.05	2.4	1.60	17.3	8	1d	0.13	20.6	0	163	0.53
		2.91	0.14	1.4		17.8	16	42d					
VBSO007	2008 EG168	2.79	0.35	8.1	0.82	14.2	17	2d	0.36	19.2	11	176	0.53
		2.99	0.16	7.3		15.8	24	45d					
VBSO024	2008 DA83	2.88	0.01	2.6	1.84	16.7	7	1d	0.30	20.3	3	173	0.55
		2.97	0.04	1.9		16.9	32	11y					
VBSO063	2008 ER144	2.26	0.27	4.7	0.66	20.0	8	1d	0.11	20.4	11	184	0.50
VBSO066	2008 ES144	2.69	0.25	6.0	1.05	18.9	8	1d	0.18	20.7	11	184	0.56
		3.17	0.07	11.0		16.8	16	23d					
VBSO068	2008 EZ95	2.34	0.18	6.0	0.94	18.8	8	1d	0.08	20.2	11	184	0.62
		2.53	0.11	7.8		17.8	15	8d					
VBTO001	2008 EJ20	2.47	0.16	6.6	1.06	16.1	15	1d	0.23	19.8	-3	161	0.57
		2.44	0.12	6.2		16.6	126	10y					
VBTO028	2008 EE144	2.53	0.08	14.7	1.32	17.6	16	2d	0.10	20.3	-4	162	0.62
		2.56	0.09	15.8		17.4	27	3d					
VBTO052	2008 EJ134	2.78	0.05	4.0	1.63	16.5	8	1d	0.11	20.4	-3	162	0.52
		2.78	0.07	4.0		17.0	44	6y					

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Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBTU008	2008 CQ149	2.36	0.01	3.2	1.34	18.5	5	1d	0.12	21.1	-5	192	0.63
		3.21	0.21	9.3		16.4	11	30d					
VBTU019	2008 ET69	2.37	0.11	5.8	1.12	19.0	5	1d	0.13	21.0	-6	192	0.63
VBTU023	2008 DU59	2.41	0.27	2.5	0.78	19.1	4	1d	0.08	20.0	-6	192	0.50
		3.18	0.08	4.1		15.7	41	11y					
VBTU025	2008 EW83	2.36	0.25	3.7	0.78	18.5	6	1d	0.05	19.5	-6	193	0.52
		3.13	0.03	11.0		15.4	62	16y					
VBTU028	2008 EX83	2.29	0.08	7.4	1.12	17.6	6	1d	0.09	19.7	-6	192	0.66
		2.38	0.07	9.2		17.1	53	19y					
VBTU044	2008 EO84	2.74	0.07	3.8	1.55	17.3	18	2d	0.23	21.0	-4	189	0.55
		2.74	0.08	3.6		17.6	27	8d					
VBTU047	2008 EP84	3.11	0.06	9.6	1.90	16.2	14	1d	0.10	20.5	-4	188	0.52
VBTU048	2008 EM84	2.39	0.02	4.3	1.34	18.4	18	2d	0.17	20.9	-4	189	0.62
		2.68	0.31	7.2		17.5	51	2y					
VBTU050	2008 EL84	3.09	0.11	3.9	1.76	17.1	14	1d	0.08	20.6	-4	189	0.53
		3.09	0.09	4.8		16.7	43	6y					
VBTU055	2005 SD127	3.26	0.01	5.8	2.21	16.5	18	2d	0.14	20.9	-4	189	0.48
		3.12	0.19	7.6		16.1	89	17y					
VBTU065	2008 EQ84	2.37	0.08	3.5	1.19	18.3	12	1d	0.10	20.5	-4	188	0.64
		2.37	0.08	3.4		18.6	28	9d					
VBTU098	2008 GS74	2.23	0.05	7.9	1.14	17.4	10	1d	0.24	20.8	9	135	0.18
		2.98	0.09	8.9									
VBTU119	2008 EN90	2.27	0.31	6.7	0.59	19.3	13	1d	0.09	20.1	-1	163	0.69
		2.60	0.05	22.3		16.8	34	44d					
VBTU123	2008 EM154	2.78	0.05	3.3	1.64	16.7	13	1d	0.13	20.6	-1	162	0.51
VBTU125	2008 EO90	2.56	0.02	2.1	1.51	17.2	12	1d	0.11	20.5	-1	162	0.54
		2.58	0.25	2.8		16.9	19	17d					
VBTU136	2008 DE69	2.28	0.02	4.5	1.23	17.4	8	1d	0.07	20.0	-4	189	0.66
		2.31	0.17	3.1		18.3	16	15d					
VBTU137	2008 EC155	1.92	0.21	2.0	0.52	21.8	8	1d	0.18	21.5	-4	189	0.55
		3.05	0.09	10.3		17.5	13	3d					
VBTU145	2008 DM83	2.33	0.18	4.0	0.93	18.7	8	1d	0.06	20.1	-4	189	0.61
		2.54	0.22	5.5		17.8	28	3y					
VBTU155	2001 SA350	2.48	0.15	3.4	1.12	18.6	8	1d	0.06	20.6	-4	189	0.60
		2.73	0.03	2.8		16.3	84	10y					
VBTU163	2008 EG145	3.03	0.04	2.6	1.92	17.0	6	1d	0.12	20.9	-3	162	0.47
VBTU174	2008 FQ65	2.26	0.49	3.5	0.18	18.4	2	1d	0.00	18.9	0	132	0.28
		2.58	0.14	13.2		17.4	25	72d					
VBTU212	2008 FX41	2.33	0.24	7.0	0.78	19.7	5	1d	0.14	20.4	1	172	0.65
		2.66	0.29	8.9		19.2	21	40d					
VBVI001	2005 SO198	2.53	0.03	1.0	1.45	17.4	14	1d	0.11	20.3	0	190	0.60
		2.63	0.18	1.5		17.2	44	5y					
VBVI002	2008 EZ127	2.33	0.17	7.7	0.93	18.8	14	1d	0.11	20.1	0	190	0.67
		2.54	0.13	11.8		17.8	28	28d					
VBVI004	2008 EU144	2.54	0.02	0.8	1.48	17.2	23	2d	0.18	20.3	0	190	0.58
		2.55	0.05	0.9		17.2	30	16d					
VBVI006	2008 EV144	2.80	0.22	2.6	1.19	18.4	15	1d	0.17	20.5	0	190	0.54

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Table A.2 (continued) – Later identification of unknown asteroids observed at ESO/MPG.

Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBVI009	2008 EZ145	3.08	0.04	1.9	1.94	16.6	22	2d	0.12	20.5	-1	190	0.50
		3.02	0.23	2.6		16.2	25	13d					
VBVI010	2008 EY33	2.66	0.22	3.1	1.07	17.2	22	2d	0.21	19.4	0	191	0.57
		2.53	0.12	3.2		17.8	56	15y					
VBVI011	2008 ET144	2.21	0.11	0.4	0.98	18.3	22	2d	0.09	19.9	0	190	0.61
		2.27	0.14	0.4		18.8	44	8y					
VBVI016	2002 TT318	2.38	0.11	6.8	1.12	18.2	8	1d	0.11	20.3	4	193	0.63
		2.57	0.24	12.6		17.4	28	7y					
VBVI021	2008 EY144	2.38	0.19	2.4	0.93	18.7	8	1d	0.08	20.2	4	193	0.55
VBVI024	2008 EX144	2.33	0.24	7.0	0.78	19.4	8	1d	0.17	20.4	4	192	0.59
		3.81	0.30	27.5		16.2	16	6d					
VBVI026	2008 CR152	2.69	0.05	24.9	1.57	15.8	8	1d	0.09	19.3	0	190	0.72
		2.64	0.06	22.1		16.3	52	28d					
VBVI035	2008 EA146	2.87	0.15	2.5	1.43	16.1	8	1d	0.07	20.5	0	191	0.53
VBVI039	2008 CG89	2.27	0.07	6.3	1.12	17.1	8	1d	0.09	19.1	-1	191	0.67
		2.24	0.10	5.7		17.6	41	35d					
VBVI041	2008 EB146	2.38	0.02	2.9	1.34	17.5	8	1d	0.07	20.1	-1	191	0.63
		2.41	0.14	2.7		18.2	18	25d					
VBVI042	2008 EW33	2.42	0.20	2.6	0.93	19.0	8	1d	0.04	20.4	0	191	0.57
		2.75	0.04	6.3		17.4	16	12d					
VBTU147	2003 SF319	2.18	0.14	2.2	0.89	20.1	7	1d	0.22	21.4	-4	189	0.64
		2.19	0.14	3.5		18.2	52	12y					

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Table A.3: Standing unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VB002	3.12	0.06	8.4	1.94	15.9	8	1d	0.16	21.1	0	123	0.09
VB003	2.38	0.11	3.0	1.11	17.7	8	1d	0.08	20.8	0	123	0.19
VB004	2.62	0.19	14.8	1.11	17.6	8	1d	0.16	20.6	0	124	0.38
VB005	3.03	0.29	2.1	1.13	17.1	7	1d	0.09	20.6	0	124	0.24
VB006	2.22	0.05	6.5	1.12	17.1	8	1d	0.10	20.6	0	124	0.11
VB007	2.29	0.16	1.1	0.92	18.2	8	1d	0.14	20.8	0	124	0.26
VB008	2.38	0.23	2.3	0.85	16.3	7	1d	0.16	20.9	0	124	0.10
VB010	2.85	0.23	2.3	1.17	17.0	8	1d	0.11	21.0	0	124	0.11
VB011	2.28	0.49	6.7	0.19	20.5	8	1d	0.13	20.8	0	124	0.55
VB012	2.41	0.21	4.0	0.91	16.6	7	1d	0.15	21.2	0	124	0.10
VB013	2.31	0.23	5.9	0.82	17.6	8	1d	0.09	20.8	0	124	0.10
VB015	2.47	0.05	6.0	1.35	17.0	8	1d	0.09	21.0	0	124	0.09
VB016	2.23	0.23	5.6	0.75	17.7	8	1d	0.09	21.0	0	124	0.12
VB017	2.41	0.21	3.4	0.91	16.5	8	1d	0.12	21.1	0	124	0.09
VB019	2.40	0.22	5.9	0.89	16.7	8	1d	0.18	21.2	-1	124	0.12
VB020	2.33	0.11	5.2	1.08	17.2	8	1d	0.22	21.3	-1	124	0.09
VB021	2.59	0.00	12.2	1.58	17.2	7	1d	0.28	21.3	-1	124	0.15
VB022	2.30	0.49	2.6	0.18	20.6	6	1d	0.09	20.8	-1	124	0.28
VB023	2.35	0.24	4.9	0.79	16.4	8	1d	0.17	21.0	-1	124	0.12
VB025	2.56	0.09	0.9	1.33	17.2	8	1d	0.07	20.8	-1	124	0.11
VB026	2.17	0.03	0.6	1.10	17.9	8	1d	0.08	21.0	-1	124	0.13
VB028	2.23	0.16	6.9	0.87	17.0	7	1d	0.15	21.0	0	124	0.09
VB030	2.51	0.07	1.5	1.33	17.5	7	1d	0.12	21.0	-1	123	0.11
VB031	2.36	0.10	2.7	1.13	16.7	7	1d	0.25	20.7	-1	125	0.07
VB032	2.34	0.18	2.1	0.92	18.8	7	1d	0.22	21.3	-1	126	0.25
VB033	2.67	0.09	1.6	1.44	16.2	6	1d	0.09	20.8	-1	125	0.07
VB034	2.34	0.11	6.9	1.08	—	4	1d	0.07	—	-1	125	0.10
VB035	2.54	0.02	9.5	1.49	17.4	6	1d	0.11	21.4	-1	126	0.15
VB038	2.16	0.02	0.7	1.10	18.1	7	1d	0.12	21.1	-1	126	0.08
VB040	2.59	0.00	8.2	1.59	17.2	7	1d	0.14	21.2	-1	126	0.14
VB041	2.29	0.02	8.9	1.25	17.4	7	1d	0.12	20.9	-1	126	0.18
VB042	2.45	0.05	5.5	1.33	17.8	7	1d	0.22	21.3	-1	126	0.13
VB043	2.69	0.08	1.3	1.47	16.7	6	1d	0.10	21.3	-1	126	0.08
VB044	2.62	0.55	2.2	0.18	20.5	7	1d	0.12	21.3	-1	126	0.20
VB046	2.21	0.13	6.7	0.93	19.3	7	1d	0.98	20.7	-1	191	0.68
VB048	2.27	0.15	4.1	0.92	18.7	8	1d	0.11	21.2	-1	126	0.22
VB049	3.02	0.09	14.2	1.74	16.2	8	1d	0.18	21.3	-1	126	0.16
VB050	3.12	0.06	1.6	1.94	15.9	8	1d	0.09	21.1	-1	127	0.09
VB051	2.70	0.04	3.8	1.59	17.2	7	1d	0.21	21.2	-1	127	0.07
VB052	2.62	0.11	3.2	1.33	16.7	8	1d	0.20	21.2	-1	126	0.10
VB053	2.27	0.14	6.6	0.94	17.1	8	1d	0.13	21.1	-1	126	0.14
VB054	2.52	0.16	0.6	1.11	18.3	8	1d	0.17	21.3	-1	126	0.14
VB055	2.23	0.22	5.5	0.77	17.9	8	1d	0.06	21.1	-1	126	0.15
VB056	2.40	0.03	7.3	1.33	17.7	8	1d	0.08	21.2	-1	126	0.15
VB058	3.16	0.19	2.2	1.56	15.5	8	1d	0.19	21.2	-1	126	0.13
VB059	2.50	0.04	4.0	1.40	17.2	8	1d	0.09	21.2	-1	126	0.09
VB060	2.49	0.04	0.9	1.39	17.0	7	1d	0.11	21.0	-1	126	0.05
VB061	2.61	0.00	3.4	1.59	16.8	8	1d	0.09	20.8	-2	126	0.08
VB062	2.39	0.20	3.8	0.92	18.1	8	1d	0.10	20.6	-1	126	0.27
VB063	2.27	0.07	5.3	1.11	18.0	8	1d	0.09	21.0	-1	126	0.18
VB064	2.47	0.18	2.1	1.03	16.8	8	1d	0.13	21.3	-1	126	0.11

Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VB065	2.60	0.00	3.1	1.58	17.4	6	1d	0.10	21.4	-1	126	0.07
VBOP001	2.43	0.08	5.6	1.24	17.3	7	1d	0.14	20.3	-3	162	0.56
VBOP002	2.79	0.20	5.0	1.22	17.8	6	1d	0.11	20.2	-3	162	0.47
VBOP003	2.20	0.02	4.3	1.17	18.8	8	1d	0.24	21.1	-3	162	0.61
VBOP004	2.04	0.28	6.3	0.51	20.5	7	1d	0.47	21.0	-3	162	0.76
VBOP008	3.30	0.11	2.4	1.92	15.3	8	1d	0.12	19.6	-3	162	0.45
VBOP009	2.35	0.18	4.0	0.93	19.5	8	1d	0.15	21.0	-4	162	0.53
VBOP010	1.85	0.25	5.0	0.42	20.8	8	1d	0.48	20.8	-4	162	0.74
VBOP011	2.21	0.05	2.7	1.09	18.3	8	1d	0.18	21.0	-4	162	0.61
VBOP012	2.46	0.05	2.3	1.33	18.4	8	1d	0.15	21.1	-4	162	0.55
VBOP014	2.34	0.00	4.2	1.32	17.5	8	1d	0.08	20.2	-4	162	0.58
VBOP015	3.19	0.03	2.7	2.08	16.4	8	1d	0.18	21.0	-4	162	0.45
VBOP016	2.34	0.10	4.1	1.11	18.9	8	1d	0.10	21.0	-4	162	0.57
VBOP018	2.33	0.00	0.6	1.32	18.0	8	1d	0.09	20.7	0	163	0.60
VBOP019	2.30	0.13	3.1	1.00	16.7	8	1d	0.09	19.9	0	163	0.62
VBOP020	2.35	0.16	2.1	0.99	19.1	8	1d	0.09	20.8	0	163	0.56
VBOP021	2.73	0.05	4.5	1.60	17.5	8	1d	0.20	20.7	0	163	0.54
VBOP022	2.57	0.01	2.3	1.54	17.6	8	1d	0.10	20.8	0	163	0.56
VBOP025	2.31	0.09	4.3	1.11	17.5	6	1d	0.04	19.5	0	163	0.60
VBOP026	2.61	0.23	3.2	1.02	18.9	6	1d	0.24	20.7	0	163	0.50
VBOP027	2.40	0.20	2.1	0.93	19.1	8	1d	0.06	20.6	-1	163	0.53
VBOP028	2.50	0.07	0.8	1.33	17.8	8	1d	0.09	20.4	-1	163	0.56
VBOP029	2.34	0.22	3.3	0.82	19.6	8	1d	0.07	20.7	-1	163	0.52
VBOP030	2.12	0.01	1.7	1.11	18.5	8	1d	0.11	20.5	-1	163	0.64
VBOP031	2.84	0.03	3.8	1.77	17.1	8	1d	0.22	21.0	-1	163	0.52
VBOP032	2.69	0.25	4.2	1.03	19.0	7	1d	0.25	20.9	-1	163	0.48
VBSO002	2.09	0.10	5.2	0.90	19.4	14	1d	0.21	20.7	11	176	0.70
VBSO003	2.62	0.05	6.9	1.47	16.3	11	1d	0.09	19.6	11	176	0.60
VBSO005	2.01	0.20	4.2	0.63	20.2	11	1d	0.09	20.4	10	176	0.61
VBSO006	2.60	0.22	5.6	1.04	18.8	9	1d	0.08	20.5	11	176	0.56
VBSO009	2.35	0.10	7.1	1.12	18.6	8	1d	0.11	20.6	11	176	0.66
VBSO013	2.13	0.12	5.5	0.90	19.5	8	1d	0.15	20.7	10	176	0.69
VBSO015	2.70	0.08	14.0	1.47	16.0	9	1d	0.06	19.8	10	176	0.62
VBSO016	2.90	0.26	5.6	1.15	18.2	8	1d	0.05	20.2	10	176	0.53
VBSO017	3.14	0.05	11.5	1.98	16.4	8	1d	0.18	20.8	10	176	0.52
VBSO018	2.20	0.23	14.8	0.72	17.4	7	1d	0.36	20.7	10	176	0.73
VBSO019	1.94	0.22	3.6	0.52	21.1	8	1d	0.16	20.7	10	176	0.54
VBSO020	2.24	0.27	4.7	0.65	19.9	7	1d	0.08	20.2	10	176	0.53
VBSO021	2.40	0.20	2.8	0.93	19.4	7	1d	0.10	20.7	3	173	0.60
VBSO022	2.30	0.27	2.3	0.68	20.3	6	1d	0.17	20.6	3	173	0.52
VBSO023	2.79	0.09	1.8	1.54	17.5	7	1d	0.13	20.6	3	173	0.57
VBSO025	2.71	0.07	4.1	1.51	17.5	7	1d	0.12	20.7	3	173	0.58
VBSO026	3.15	0.19	2.8	1.54	15.6	7	1d	0.10	20.5	3	173	0.49
VBSO027	2.41	0.20	2.5	0.93	18.9	7	1d	0.05	20.1	3	173	0.59
VBSO028	2.14	0.12	3.1	0.89	19.5	6	1d	0.24	20.6	2	173	0.67
VBSO029	2.86	0.17	2.1	1.39	16.8	7	1d	0.11	20.6	2	173	0.56
VBSO030	2.54	0.19	2.0	1.07	18.7	7	1d	0.07	20.4	2	173	0.59
VBSO031	2.34	0.25	3.5	0.77	19.2	7	1d	0.09	19.9	2	173	0.60
VBSO032	2.95	0.01	2.5	1.92	16.9	6	1d	0.28	20.5	2	173	0.54
VBSO033	3.11	0.06	3.1	1.92	16.4	7	1d	0.10	20.0	3	173	0.52
VBSO034	2.29	0.22	8.4	0.79	16.9	7	1d	0.49	20.3	3	173	0.65

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Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBSO035	2.48	0.10	10.8	1.23	18.4	4	1d	0.39	20.6	3	173	0.69
VBSO037	2.38	0.17	5.4	0.96	16.6	7	1d	0.09	20.0	3	173	0.64
VBSO038	2.72	0.17	22.1	1.38	16.9	7	1d	0.11	20.4	3	173	0.70
VBSO039	2.26	0.07	6.0	1.10	17.1	8	1d	0.14	20.3	2	117	0.30
VBSO040	2.69	0.03	7.7	1.59	16.0	8	1d	0.09	20.2	2	117	0.19
VBSO041	2.25	0.06	2.0	1.10	16.5	6	1d	0.05	19.7	2	117	0.28
VBSO042	2.61	0.00	6.8	1.59	16.1	7	1d	0.23	20.3	2	117	0.14
VBSO043	2.21	0.05	2.6	1.10	16.4	7	1d	0.13	20.1	2	117	0.16
VBSO044	2.76	0.19	4.4	1.23	18.0	8	1d	0.08	20.4	2	163	0.51
VBSO045	3.19	0.05	1.7	2.03	16.3	6	1d	0.22	20.3	2	163	0.49
VBSO046	2.74	0.19	4.3	1.22	18.1	8	1d	0.08	20.5	2	163	0.51
VBSO047	2.47	0.06	11.5	1.34	15.7	8	1d	0.17	18.7	2	163	0.63
VBSO048	1.90	0.21	1.5	0.51	20.9	8	1d	0.14	20.6	2	163	0.49
VBSO049	2.30	0.01	6.0	1.27	17.5	8	1d	0.07	20.2	2	163	0.63
VBSO050	2.10	0.11	1.0	0.88	18.7	8	1d	0.12	20.1	2	164	0.62
VBSO051	2.80	0.20	1.7	1.26	18.1	8	1d	0.16	20.6	2	163	0.51
VBSO053	2.39	0.12	5.3	1.11	17.7	7	1d	0.04	19.7	2	164	0.59
VBSO054	2.27	0.22	4.6	0.77	19.5	8	1d	0.07	20.4	2	164	0.55
VBSO055	2.41	0.15	7.1	1.05	18.1	6	1d	0.36	20.0	2	164	0.61
VBSO056	2.54	0.26	2.1	0.88	19.2	8	1d	0.08	20.5	2	163	0.49
VBSO057	2.87	0.02	2.1	1.81	16.5	8	1d	0.11	20.3	2	163	0.51
VBSO058	2.48	0.06	2.9	1.33	17.8	8	1d	0.07	20.4	2	163	0.57
VBSO060	2.45	0.26	3.7	0.83	18.5	6	1d	0.05	19.7	2	163	0.53
VBSO061	2.50	0.04	3.2	1.39	17.2	6	1d	0.07	20.4	2	163	0.57
VBSO062	2.32	0.09	3.7	1.11	18.1	6	1d	0.13	20.2	2	163	0.59
VBSO064	2.30	0.27	4.5	0.68	20.2	8	1d	0.12	20.7	11	184	0.51
VBSO065	2.98	0.24	8.3	1.29	18.1	8	1d	0.18	20.5	11	184	0.55
VBSO067	2.22	0.26	4.5	0.66	20.3	8	1d	0.14	20.6	11	184	0.53
VBSO069	2.27	0.22	4.8	0.78	19.7	7	1d	0.30	20.6	11	184	0.57
VBSO070	2.35	0.01	6.2	1.33	17.0	5	1d	0.09	19.6	11	184	0.65
VBSO071	3.04	0.22	9.9	1.39	17.9	7	1d	0.25	20.6	11	184	0.55
VBSO072	1.95	0.13	17.5	0.70	19.4	8	1d	0.12	20.0	11	184	1.17
VBSO073	2.21	0.01	6.9	1.18	18.3	8	1d	0.26	20.5	11	184	0.69
VBSO074	2.24	0.27	5.2	0.66	20.5	8	1d	0.27	20.9	11	184	0.53
VBSO075	2.20	0.14	5.4	0.90	19.4	8	1d	0.19	20.7	11	184	0.64
VBSO076	2.31	0.17	5.5	0.94	19.2	5	1d	0.38	20.7	11	184	0.62
VBSO077	2.11	0.12	7.0	0.85	18.3	4	1d	0.10	20.6	11	184	0.73
VBSO078	2.43	0.28	5.0	0.78	19.8	5	1d	0.31	20.6	11	184	0.53
VBSO079	2.64	0.10	7.2	1.38	17.5	5	1d	0.35	21.1	11	184	0.56
VBTO003	2.22	0.10	1.8	1.01	18.6	14	1d	0.18	20.6	-3	161	0.58
VBTO004	2.57	0.25	2.8	0.91	16.3	14	1d	0.13	20.6	-3	161	0.52
VBTO007	2.33	0.35	9.1	0.56	18.5	11	1d	0.65	20.8	-3	162	0.76
VBTO009	2.27	0.15	7.0	0.93	19.2	12	1d	0.44	20.8	-4	162	0.59
VBTO014	2.40	0.16	8.1	1.04	18.9	13	1d	0.26	20.9	-4	162	0.57
VBTO016	1.40	0.15	1.7	0.20	22.7	14	1d	0.87	20.6	-4	161	0.68
VBTO017	3.07	0.15	3.4	1.60	17.1	14	1d	0.17	20.5	-3	161	0.46
VBTO018	2.40	0.12	3.1	1.11	17.8	14	1d	0.27	20.0	-3	161	0.53
VBTO020	2.32	0.09	3.3	1.11	17.5	8	1d	0.14	19.6	-3	162	0.56
VBTO026	2.26	0.11	1.8	1.02	18.9	8	1d	0.11	20.9	-3	162	0.58
VBTO030	2.34	0.18	4.0	0.93	19.4	8	1d	0.12	21.0	-4	162	0.53
VBTO031	2.47	0.22	3.5	0.93	19.3	8	1d	0.11	20.9	-4	162	0.47

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Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBTO032	2.23	0.16	1.9	0.87	19.5	8	1d	0.21	20.9	-4	162	0.55
VBTO033	2.50	0.19	6.1	1.02	19.1	8	1d	0.16	21.0	-4	162	0.53
VBTO034	1.93	0.17	3.2	0.61	20.3	8	1d	0.49	20.7	-4	162	0.54
VBTO037	2.30	0.19	7.0	0.87	19.6	8	1d	0.14	21.1	-4	162	0.61
VBTO041	2.33	0.22	3.2	0.82	19.8	8	1d	0.13	21.1	-4	162	0.48
VBTO042	2.34	0.10	5.6	1.11	19.0	8	1d	0.17	21.1	-4	162	0.56
VBTO048	2.22	0.18	6.6	0.82	19.8	7	1d	0.47	21.0	-3	162	0.61
VBTO050	3.08	0.25	3.2	1.30	18.1	8	1d	0.16	20.9	-3	162	0.45
VBTO053	2.31	0.21	2.3	0.82	19.7	8	1d	0.12	20.9	-3	162	0.51
VBTOb10	2.22	0.05	2.5	1.10	18.2	8	1d	0.15	20.9	-4	162	0.60
VBTOb13	2.49	0.06	3.6	1.33	17.9	16	1d	0.11	20.5	-4	162	0.52
VBTU003	2.40	0.13	4.2	1.11	19.1	14	1d	0.32	21.1	-5	192	0.59
VBTU004	2.30	0.16	5.5	0.93	19.8	3	1d	0.16	21.3	-5	192	0.62
VBTU007	2.39	0.12	5.4	1.12	18.7	4	1d	0.13	20.7	-6	192	0.62
VBTU009	2.88	0.25	15.8	1.17	16.1	5	1d	0.15	20.9	-5	192	0.53
VBTU010	2.29	0.19	4.6	0.84	18.6	4	1d	0.09	20.8	-6	192	0.69
VBTU021	2.60	0.35	6.7	0.72	18.4	15	1d	0.14	20.5	-3	161	0.66
VBTU022	2.22	0.32	5.2	0.54	18.3	14	1d	0.20	18.9	-3	161	0.64
VBTU026	1.97	0.36	18.7	0.24	17.5	6	1d	0.57	20.8	-6	193	0.78
VBTU031	1.88	0.38	19.1	0.17	18.0	4	1d	0.53	21.1	-6	192	0.84
VBTU032	1.99	0.30	16.8	0.39	17.9	5	1d	0.67	21.1	-6	192	0.87
VBTU036	2.33	0.00	3.8	1.31	18.8	5	1d	0.24	21.4	-6	192	0.62
VBTU040	2.47	0.16	6.6	1.06	17.0	14	1d	0.23	20.7	-3	161	0.55
VBTU042	2.39	0.19	4.5	0.93	19.1	8	1d	0.33	20.7	-3	161	0.51
VBTU043	1.92	0.25	1.4	0.44	21.4	14	1d	0.08	20.6	-4	188	0.49
VBTU046	2.72	0.05	3.3	1.59	17.7	14	1d	0.12	20.9	-4	188	0.57
VBTU051	2.38	0.11	5.4	1.12	19.3	10	1d	0.18	21.2	-4	188	0.65
VBTU053	2.77	0.05	2.8	1.62	17.5	10	2d	0.39	21.2	-4	189	0.54
VBTU067	2.77	0.27	3.3	1.04	19.6	13	1d	0.24	21.2	-4	188	0.55
VBTU081	2.31	0.01	2.9	1.27	18.2	3	1d	0.10	20.8	-5	189	0.65
VBTU082	2.74	0.05	9.7	1.61	18.2	3	1d	0.04	21.4	-4	189	0.60
VBTU084	1.98	0.06	9.2	0.85	19.4	3	1d	0.24	21.3	-5	189	0.79
VBTU086	2.77	0.06	4.0	1.61	18.3	3	1d	0.10	21.5	-4	189	0.56
VBTU087	2.22	0.13	9.0	0.93	19.5	3	1d	0.18	21.4	-4	189	0.74
VBTU088	2.45	0.22	2.2	0.93	20.1	3	1d	0.16	21.4	-4	189	0.56
VBTU091	2.12	0.10	2.5	0.89	18.4	4	1d	0.07	20.9	-4	189	0.71
VBTU093	2.36	0.01	6.4	1.33	18.3	4	1d	0.05	20.8	-4	189	0.66
VBTU094	2.06	0.16	5.5	0.75	18.5	9	1d	0.20	21.1	9	135	0.22
VBTU095	3.19	0.08	17.1	1.92	16.2	13	1d	0.21	20.7	9	135	0.19
VBTU096	2.42	0.50	7.7	0.26	20.4	12	1d	0.20	21.1	9	135	0.51
VBTU097	2.48	0.05	7.1	1.37	14.7	9	1d	0.21	18.6	9	135	0.24
VBTU099	1.95	0.13	4.8	0.70	17.5	14	1d	0.03	19.6	9	135	0.23
VBTU100	2.28	0.02	6.1	1.23	17.3	14	1d	0.09	20.6	9	135	0.19
VBTU102	2.27	0.03	6.6	1.21	17.5	14	1d	0.14	20.8	9	135	0.17
VBTU105	2.78	0.17	19.6	1.31	16.3	13	1d	0.24	20.6	-3	161	0.57
VBTU106	2.36	0.19	5.8	0.93	19.1	10	1d	0.19	20.7	-3	161	0.51
VBTU109	2.35	0.14	1.7	1.04	17.6	13	1d	0.07	19.6	0	162	0.55
VBTU111	2.33	0.31	3.2	0.63	19.0	13	1d	0.20	20.4	0	162	0.64
VBTU112	2.39	0.12	0.5	1.11	17.6	13	1d	0.10	19.7	0	163	0.53
VBTU114	2.44	0.21	2.9	0.93	18.2	11	1d	0.07	19.7	-1	163	0.50
VBTU115	2.45	0.28	1.3	0.77	18.9	11	1d	0.08	20.0	-1	163	0.41

Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBTU116	2.43	0.13	3.6	1.11	18.7	6	1d	0.15	20.8	-1	163	0.53
VBTU117	2.22	0.13	7.4	0.93	19.1	11	1d	0.19	20.7	-1	163	0.62
VBTU118	2.21	0.17	4.2	0.83	17.4	13	1d	0.19	20.7	-1	163	0.62
VBTU120	2.54	0.02	2.5	1.48	16.3	10	1d	0.07	19.6	-1	162	0.54
VBTU121	2.39	0.08	11.6	1.21	17.9	10	1d	0.72	20.9	-1	162	0.59
VBTU122	2.54	0.07	3.9	1.35	17.7	12	1d	0.22	20.8	-1	162	0.53
VBTU126	2.32	0.01	2.3	1.30	18.1	12	1d	0.14	20.8	-1	162	0.58
VBTU127	3.12	0.07	2.4	1.92	16.9	12	1d	0.18	20.8	-1	162	0.46
VBTU129	2.32	0.17	5.1	0.93	19.0	12	1d	0.20	20.6	0	162	0.55
VBTU130	2.36	0.11	3.2	1.11	18.5	9	1d	0.25	20.6	0	162	0.55
VBTU131	3.07	0.05	3.3	1.92	17.1	8	1d	0.42	21.0	0	162	0.47
VBTU132	2.31	0.12	22.7	1.09	17.6	5	1d	0.95	21.1	-28	183	0.70
VBTU133	2.32	0.12	22.8	1.10	17.5	8	1d	0.49	21.0	-28	183	0.70
VBTU140	2.22	0.17	4.7	0.84	17.2	8	1d	0.05	20.4	-4	189	0.67
VBTU142	2.73	0.05	2.5	1.61	18.3	6	1d	0.24	21.5	-4	189	0.56
VBTU143	2.10	0.30	3.6	0.47	18.8	3	1d	0.75	21.7	-4	189	0.75
VBTU144	2.37	0.25	4.5	0.78	20.6	6	1d	0.20	21.4	-4	189	0.56
VBTU146	2.50	0.07	3.6	1.34	18.3	8	1d	0.10	20.9	-4	189	0.60
VBTU148	2.46	0.28	2.7	0.78	20.6	8	1d	0.21	21.4	-4	189	0.50
VBTU151	2.35	0.25	2.8	0.74	18.0	8	1d	0.13	21.3	-4	189	0.67
VBTU152	2.61	0.22	9.3	1.04	19.6	8	1d	0.39	21.3	-4	189	0.66
VBTU156	2.36	0.25	2.1	0.78	20.7	7	1d	0.20	21.5	-4	189	0.53
VBTU162	2.36	0.08	3.9	1.18	18.5	8	1d	0.08	20.9	-3	162	0.57
VBTU164	2.42	0.04	3.1	1.33	18.2	5	1d	0.22	20.9	-3	162	0.55
VBTU166	2.44	0.07	6.5	1.28	17.3	7	1d	0.24	21.2	1	132	0.17
VBTU167	2.26	0.15	6.8	0.93	17.3	7	1d	0.28	21.2	1	132	0.21
VBTU168	2.24	0.16	7.0	0.89	17.4	8	1d	0.18	21.3	1	132	0.21
VBTU169	2.74	0.15	13.8	1.33	18.1	6	1d	0.13	21.5	0	132	0.27
VBTU170	2.78	0.24	16.0	1.11	18.2	8	1d	0.21	21.0	0	132	0.40
VBTU171	2.42	0.07	1.4	1.25	17.4	8	1d	0.20	21.3	0	132	0.15
VBTU172	2.29	0.08	3.6	1.11	17.8	8	1d	0.13	20.7	0	132	0.10
VBTU173	2.38	0.02	1.2	1.33	17.5	8	1d	0.14	20.8	0	132	0.09
VBTU175	2.46	0.18	7.5	1.01	16.6	6	1d	0.23	21.1	0	132	0.22
VBTU176	2.61	0.12	10.6	1.31	16.4	8	1d	0.17	20.9	0	132	0.21
VBTU177	2.27	0.03	7.0	1.21	17.6	6	1d	0.19	21.0	0	132	0.17
VBTU178	3.11	0.06	2.0	1.93	16.0	6	1d	0.16	21.1	0	132	0.16
VBTU179	2.43	0.07	0.6	1.26	17.1	5	1d	0.20	21.0	0	132	0.15
VBTU180	2.37	0.11	7.1	1.11	16.5	8	1d	0.09	19.4	0	132	0.16
VBTU181	3.04	0.09	2.2	1.78	15.8	3	1d	0.09	20.9	0	132	0.17
VBTU183	2.37	0.10	5.2	1.14	17.4	4	1d	0.11	21.3	0	132	0.18
VBTU184	2.20	0.18	7.3	0.81	17.4	7	1d	0.21	21.3	0	132	0.22
VBTU188	2.68	0.22	9.2	1.09	16.7	8	1d	0.09	20.9	11	135	0.27
VBTU189	2.93	0.26	11.3	1.18	15.9	7	1d	0.08	20.7	10	136	0.22
VBTU190	2.42	0.04	7.6	1.34	16.4	7	1d	0.09	19.7	10	136	0.19
VBTU191	3.15	0.24	11.8	1.40	16.3	7	1d	0.08	21.1	10	136	0.20
VBTU192	2.01	0.14	5.7	0.74	18.9	7	1d	0.09	21.0	10	136	0.22
VBTU193	3.40	0.24	14.2	1.59	16.1	7	1d	0.12	20.9	11	136	0.19
VBTU194	2.21	0.18	7.1	0.84	17.7	8	1d	0.18	21.5	10	136	0.30
VBTU195	2.30	0.46	5.3	0.26	21.5	7	1d	0.17	21.3	10	135	0.47
VBTU196	2.20	0.06	8.5	1.08	17.9	8	1d	0.13	21.2	10	135	0.32
VBTU197	3.02	0.68	8.2	0.09	18.9	7	1d	0.38	21.4	10	135	0.68

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Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBTU198	2.42	0.04	6.9	1.34	18.2	6	1d	0.17	21.5	10	135	0.20
VBTU200	2.42	0.07	7.5	1.25	17.2	8	1d	0.10	21.1	0	132	0.18
VBTU201	2.66	0.10	10.2	1.41	16.1	14	1d	0.09	20.6	1	132	0.20
VBTU205	2.25	0.06	5.0	1.11	18.4	7	1d	0.41	21.3	0	132	0.11
VBTU206	2.38	0.51	1.3	0.19	20.6	4	1d	0.87	21.3	0	131	0.28
VBTU209	2.39	0.12	4.6	1.11	19.3	4	1d	0.26	21.2	1	171	0.63
VBTU210	2.89	0.01	2.1	1.85	17.0	5	1d	0.10	20.6	1	172	0.54
VBTU211	2.44	0.04	3.7	1.34	18.5	5	1d	0.14	20.9	1	172	0.63
VBTU214	2.22	0.17	2.0	0.84	17.7	5	1d	0.07	20.7	1	172	0.68
VBTU215	2.64	0.02	3.3	1.60	17.5	5	1d	0.12	20.5	1	171	0.59
VBTU216	3.16	0.04	11.3	2.02	16.4	5	1d	0.06	20.7	1	171	0.52
VBTU217	2.75	0.06	5.2	1.58	16.9	4	1d	0.09	20.6	1	171	0.57
VBTU218	3.05	0.04	8.8	1.92	17.2	4	1d	0.03	20.9	1	171	0.54
VBTU219	2.61	0.01	2.6	1.59	17.6	4	1d	0.15	20.6	1	171	0.59
VBTU220	2.38	0.08	2.1	1.17	18.1	5	1d	0.22	21.1	1	171	0.65
VBTU221	2.54	0.02	2.7	1.47	18.1	4	1d	0.09	21.1	1	171	0.60
VBTU222	1.01	0.08	2.2	0.03	24.7	5	1d	0.16	20.4	10	162	2.12
VBTU223	2.23	0.26	5.3	0.66	19.6	5	1d	0.36	20.9	10	162	0.63
VBTU225	2.23	0.27	4.8	0.65	19.8	4	1d	0.25	21.1	10	162	0.63
VBTU226	1.94	0.20	25.7	0.56	18.2	5	1d	0.52	21.0	10	162	0.89
VBTU227	2.47	0.10	6.1	1.22	18.4	5	1d	0.19	20.9	10	162	0.54
VBTU228	2.28	0.16	5.1	0.94	19.1	5	1d	0.07	20.7	10	162	0.53
VBTU229	2.60	0.07	11.2	1.43	17.2	7	1d	0.17	20.2	-17	188	0.58
VBTU230	2.54	0.03	14.8	1.52	17.3	6	1d	0.46	20.6	-17	188	0.58
VBTU231	2.80	0.14	13.1	1.42	17.4	5	1d	0.16	21.4	-1	126	0.18
VBTU232	1.94	0.20	0.8	0.58	18.3	8	1d	0.08	21.0	-1	126	0.07
VBTU233	2.34	0.11	5.9	1.08	17.2	8	1d	0.20	21.2	0	126	0.09
VBTU234	2.56	0.02	3.5	1.52	17.1	8	1d	0.09	21.1	0	126	0.04
VBTU235	2.70	0.04	4.1	1.59	17.4	5	1d	0.15	21.5	0	126	0.07
VBTU236	2.54	0.02	8.6	1.49	16.7	3	1d	0.17	20.7	0	126	0.12
VBTU237	2.52	0.16	3.8	1.13	16.8	8	1d	0.35	21.3	-1	126	0.11
VBTU238	2.36	0.10	5.9	1.12	16.7	8	1d	0.06	20.7	0	126	0.11
VBTU239	2.11	0.23	0.4	0.63	17.9	8	1d	0.09	21.2	-1	126	0.11
VBTU240	2.06	0.18	4.7	0.71	18.4	6	1d	0.16	21.2	-1	126	0.09
VBTU241	2.25	0.15	6.4	0.92	17.1	8	1d	0.18	21.1	-1	126	0.11
VBTU242	2.97	0.13	11.5	1.59	17.2	8	1d	0.14	21.3	-1	126	0.19
VBTU243	2.68	0.09	2.4	1.45	16.1	8	1d	0.09	20.7	-1	126	0.08
VBTU244	2.26	0.03	6.0	1.19	17.3	8	1d	0.10	20.8	-1	126	0.09
VBTU245	2.53	0.08	13.1	1.33	17.7	8	1d	0.25	21.2	-1	126	0.22
VBTU246	2.98	0.11	0.6	1.66	15.6	8	1d	0.07	20.8	-1	126	0.10
VBTU247	2.61	0.11	3.2	1.33	17.2	8	1d	0.10	20.7	-1	126	0.08
VBTU248	2.41	0.12	3.0	1.11	17.9	8	1d	0.10	20.9	-1	126	0.16
VBTUb61	2.29	0.22	12.0	0.79	17.7	4	1d	0.14	21.2	-4	189	0.69
VBVA002	2.50	0.39	13.8	0.57	17.8	3	1d	0.08	19.8	24	154	0.60
VBVA003	2.84	0.25	1.4	1.12	17.7	8	1d	0.12	21.1	-1	126	0.17
VBVI005	2.92	0.25	3.0	1.19	18.2	14	1d	0.12	20.4	0	190	0.52
VBVI007	2.64	0.20	14.6	1.12	18.3	11	1d	0.17	20.2	0	190	0.73
VBVI008	2.70	0.25	5.7	1.04	18.2	8	1d	0.50	19.9	0	190	0.56
VBVI012	2.38	0.18	11.5	0.96	16.8	7	1d	0.09	20.4	4	192	0.64
VBVI013	2.35	0.25	6.1	0.76	17.4	7	1d	0.26	18.8	4	192	0.67
VBVI014	2.20	0.06	8.0	1.08	18.2	7	1d	0.28	20.4	4	192	0.69

Table A.3 (continued) – Outstanding unknown objects observed at ESO/MPG.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBVI015	2.39	0.20	7.1	0.93	19.0	7	1d	0.12	20.5	4	192	0.62
VBVI017	2.41	0.18	3.4	0.99	19.1	8	1d	0.14	20.8	4	193	0.58
VBVI018	2.40	0.20	2.9	0.93	18.8	8	1d	0.12	20.3	4	193	0.54
VBVI019	2.64	0.01	12.9	1.60	16.1	8	1d	0.07	19.3	3	193	0.63
VBVI020	2.40	0.20	2.1	0.93	19.3	7	1d	0.12	20.8	4	193	0.54
VBVI022	2.26	0.27	7.9	0.65	19.1	8	1d	0.28	19.9	4	192	0.74
VBVI023	2.55	0.17	14.5	1.12	16.8	8	1d	0.07	18.9	4	192	0.71
VBVI027	2.24	0.07	8.0	1.09	18.6	8	1d	0.57	20.5	0	190	0.69
VBVI029	2.24	0.08	8.0	1.07	18.6	8	1d	0.58	20.4	0	191	0.69
VBVI030	2.27	0.20	0.2	0.82	19.4	7	1d	0.14	20.4	0	191	0.59
VBVI031	2.45	0.19	2.3	0.97	16.8	8	1d	0.08	20.6	0	191	0.61
VBVI032	2.50	0.12	5.5	1.20	16.7	8	1d	0.06	20.2	0	191	0.61
VBVI033	2.00	0.21	4.2	0.59	20.4	8	1d	0.60	20.7	0	191	0.69
VBVI034	2.28	0.16	7.5	0.93	19.1	7	1d	0.08	20.5	0	191	0.67
VBVI036	2.86	0.29	3.4	1.04	18.6	8	1d	0.10	20.3	0	191	0.50
VBVI038	2.01	0.21	4.2	0.59	20.2	8	1d	0.56	20.5	-1	191	0.69
VBVI040	2.41	0.23	2.2	0.84	17.8	8	1d	0.10	20.8	-1	191	0.67
VBVI044	2.37	0.21	7.3	0.89	18.9	8	1d	0.55	20.5	0	190	0.69
VBVI213	2.45	0.57	2.0	0.07	25.3	5	1d	0.31	20.0	-1	191	7.17

Table A.4: Later identification of unknown asteroids observed with Swope telescope. First line represent our data and second line reffers to updated MPC data.

Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
PBS007	2008 UC335	2.44	0.27	3.2	0.78	19.3	5	1d	0.27	19.9	1	182	0.53
		2.14	0.25	1.9		20.2	11	18d					
PBS009	2008 UE35	2.27	0.09	5.2	1.07	17.1	8	1d	0.22	19.8	0	182	0.67
		2.21	0.1	3.1		18.3	30	36d					
PBS015	2008 SM192	2.38	0.23	3.7	0.83	18.6	10	1d	0.22	19.5	-7	175	0.59
		2.8	0.14	5.4		16.9	20	30d					
PBT010	2008 TZ101	2.48	0.17	1.7	1.06	18.0	7	1d	0.12	19.8	0	188	0.59
		2.42	0.19	1.5		18.5	38	48d					
PBT012	2008 UZ25	2.33	0.24	4.6	0.77	19.0	3	1d	0.19	19.8	0	188	0.57
		3.1	0.19	12.2		17	18	35d					
PBT021	2008 UL55	2.13	0.13	0.7	0.86	18.5	6	1d	0.33	20.0	0	197	0.56
		2.37	0.12	1		17.2	79	12y					
PBT023	2008 TW81	2.44	0.19	0.4	0.99	18.4	5	1d	0.20	20.1	0	197	0.49
		2.99	0.11	1.6		17.2	24	35d					
PBT025	1998 UB46	2.65	0.24	3.7	1.03	18.1	10	1d	0.13	19.8	-3	187	0.55
		2.9	0.17	5.4		17.4	31	11y					

Table A.5: Outstanding unknown objects observed with Swope telescope.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
PBS001	2.20	0.21	4.1	0.74	19.5	6	1d	0.23	20.5	-7	194	0.52
PBS002	2.44	0.24	3.6	0.85	19.3	6	1d	0.14	20.6	-7	194	0.46
PBS003	2.40	0.13	4.2	1.10	18.3	6	1d	0.18	20.4	-7	194	0.53
PBS004	2.50	0.16	9.4	1.15	18.0	6	1d	0.28	20.4	-8	194	0.59
PBS005	2.20	0.21	4.3	0.74	18.8	6	1d	0.07	19.8	-8	194	0.52
PBS006	2.49	0.03	5.4	1.42	17.2	8	1d	0.25	19.9	1	182	0.62
PBS008	2.72	0.18	6.0	1.23	17.2	8	1d	0.15	19.3	0	182	0.60
PBS010	2.24	0.19	6.1	0.83	18.8	8	1d	0.17	20.3	-12	153	0.46
PBS011	2.25	0.22	7.7	0.78	17.8	6	1d	0.11	19.1	-17	197	0.49
PBS014	2.97	0.16	13.5	1.49	14.9	10	1d	0.19	19.5	-7	175	0.54
PBS016	2.37	0.07	10.4	1.21	16.8	8	1d	0.32	19.7	-7	175	0.68
PBS017	2.77	0.04	4.8	1.66	16.5	10	1d	0.48	19.6	-8	175	0.59
PBT001	2.72	0.03	24.0	1.65	15.6	12	1d	0.16	19.1	-12	174	0.71
PBT002	2.91	0.18	10.1	1.40	16.5	4	1d	0.40	19.2	-12	174	0.57
PBT006	2.20	0.05	4.9	1.09	16.4	5	1d	0.33	19.9	4	-108	0.57
PBT007	2.30	0.01	5.3	1.27	17.0	4	1d	0.27	20.0	-7	-149	0.37
PBT008	2.33	0.22	3.1	0.82	19.1	3	1d	0.43	20.1	0	188	0.57
PBT009	2.72	0.32	0.5	0.85	15.3	7	1d	0.36	20.1	0	188	0.54
PBT011	2.06	0.16	4.3	0.74	18.8	8	1d	0.16	19.5	0	188	0.66
PBT013	2.82	0.27	2.8	1.06	18.4	3	1d	0.31	20.2	0	188	0.52
PBT014	2.21	0.15	3.2	0.89	18.9	6	1d	0.28	20.0	-3	184	0.65
PBT015	2.74	0.30	3.8	0.91	15.1	6	1d	0.14	19.8	-3	184	0.55
PBT016	2.14	0.12	2.3	0.89	18.9	6	1d	0.34	20.1	-3	184	0.66
PBT017	2.32	0.21	7.9	0.85	19.0	4	1d	0.21	20.2	-3	184	0.72
PBT018	3.08	0.02	2.1	2.04	16.0	6	1d	0.17	19.9	-3	184	0.51
PBT022	2.28	0.24	4.3	0.72	16.4	6	1d	0.45	20.1	0	197	0.58
PBT024	2.40	0.20	0.7	0.93	18.7	3	1d	0.42	20.3	0	197	0.46
PBT026	2.49	0.23	2.6	0.93	18.7	9	1d	0.22	20.0	-3	187	0.55
PBT027	2.67	0.09	6.2	1.42	16.7	9	1d	0.30	19.9	-3	187	0.59
PBT028	2.40	0.19	3.7	0.95	16.4	6	1d	0.46	20.0	-1	196	0.56
PBV002	2.15	0.15	2.3	0.84	18.4	4	1d	0.22	19.2	-5	176	0.68
PBV003	2.35	0.22	3.2	0.83	15.8	4	1d	0.34	19.3	-5	176	0.64
PBV004	2.30	0.40	2.4	0.37	19.7	4	1d	0.40	19.5	-5	176	0.60

Table A.6: Later identification of unknown asteroids observed at the INT. First
line represent our data and second line reffers to updated MPC data.

Acronym	Designation	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VDT070	247902	2.30	0.08	6.4	1.12	17.8	4	1d	0.19	20.3	10	151	0.37
		2.86	0.20	9.0		16.3	51	10y					
VDT072	2005 YW147	2.38	0.11	6.3	1.12	17.3	5	1d	0.41	19.7	10	151	0.39
		2.42	0.15	5.8		17.6	33	6y					
VDT073	2008 SZ203	2.43	0.13	2.7	1.12	17.8	2	1d	0.00	19.7	5	173	0.61
		2.52	0.06	3.4		17.2	30	3y					
VIT003	2005 TO93	2.77	0.06	6.5	1.60	16.2	4	1d	0.42	20.4	4	240	0.17
		2.60	0.10	8.3		16.9	53	14y					
VIT005	2000 SN27	1.58	0.13	6.0	0.38	19.9	4	1d	0.38	19.0	-9	167	0.95
		2.66	0.20	14.0		16.2	78	10y					
VTD001	2010 CD146	2.40	0.20	3.9	0.93	18.2	4	1d	0.16	19.6	6	193	0.57
		2.76	0.09	4.0		16.7	11	11d					
VTD003	2010 CJ33	1.40	0.03	2.1	0.35	20.0	4	1d	0.56	19.3	6	193	1.15
		2.43	0.13	3.3		17.9	11	11d					
VTD004	2001 TY142	2.34	0.30	5.8	0.67	18.5	4	1d	0.19	18.9	14	183	0.49
		3.20	0.13	10.3		14.9	50	10y					
VTD012	2010 CU38	2.40	0.20	6.5	0.93	18.1	5	1d	0.28	19.2	0	178	0.67
		2.29	0.14	7.4		18.3	18	11d					
VTD025	2004 RJ308	2.15	0.08	9.0	0.98	17.5	5	1d	0.41	19.6	0	178	0.78
		2.37	0.18	9.6		17.0	29	18y					
VTD027	241531	2.44	0.02	0.9	1.38	16.4	5	1d	0.38	19.1	0	178	0.63
		2.68	0.04	7.5		16.2	63	11y					
VTD067	2003 UJ281	2.35	0.01	7.4	1.33	17.8	4	1d	0.16	20.8	10	151	0.43
		2.85	0.20	9.0		16.3	51	10y					
VTD073	2007 UN95	2.14	0.09	1.5	0.95	16.8	3	1d	0.89	20.8	-2	106	0.39
		2.78	0.08	2.6		16.1	33	4y					
VTU006	2009 BC142	2.50	0.19	2.2	1.05	18.6	6	1d	0.48	20.1	4	183	0.58
		2.71	0.09	4.5		16.8	25	10y					
VTU008	2009 BF55	2.33	0.22	5.4	0.83	18.9	4	1d	0.19	19.9	1	189	0.65
		3.16	0.14	16.2		16.8	19	40d					
VTU010	2009 BR86	2.41	0.20	3.5	0.94	18.1	5	1d	0.19	19.5	1	189	0.59
		2.81	0.14	5.7		16.7	31	4y					
VTU013	2010 JR112	2.57	0.03	4.2	1.50	16.8	8	1d	0.18	19.6	7	182	0.62
		2.55	0.28	4.9		15.7	59	6y					
VTU017	2009 BS86	2.49	0.15	3.6	1.12	18.0	5	1d	0.27	20.0	1	189	0.60
		2.58	0.05	4.5		17.4	17	38d					
VTU018	2009 BY86	2.11	0.24	2.0	0.60	17.7	4	1d	0.33	20.3	1	189	0.75
		2.32	0.15	1.0		18.8	16	18d					
VTU030	2009 FS67	2.39	0.12	5.1	1.11	18.0	5	1d	0.23	20.2	3	202	0.52
		2.76	0.09	7.7		16.5	26	10y					
VTU033	2009 FK20	2.36	0.29	3.8	0.67	18.8	5	1d	0.41	20.2	8	208	0.43
		2.65	0.28	4.9		17.2	22	35d					
VTU035	2002 GU116	2.24	0.04	7.1	1.14	17.1	5	1d	0.19	19.6	8	208	0.50
		2.33	0.17	7.3		17.4	49	9y					
VTU038	215040	2.45	0.05	6.9	1.35	15.6	5	1d	0.20	19.1	10	232	0.16
		2.55	0.13	7.2		16.0	52	7y					

Table A.7: Outstanding unknown objects observed at the INT.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VBA001	2.26	0.13	5.6	0.98	18.2	5	1d	0.23	20.2	8	208	0.45
VBA002	2.72	0.23	11.0	1.11	18.4	5	1d	0.22	20.8	8	208	0.51
VBA003	1.80	0.02	23.5	0.79	19.0	5	1d	0.08	21.1	43	219	0.45
VBA004	2.66	0.30	11.7	0.90	17.4	3	1d	0.53	20.2	-9	165	0.67
VBA005	2.65	0.31	4.7	0.85	17.8	5	1d	0.85	20.2	-8	165	0.68
VBA006	2.27	0.22	4.6	0.77	18.7	5	1d	0.26	19.7	-8	165	0.47
VDT055	2.61	0.00	2.3	1.60	17.4	5	1d	0.24	20.6	-1	167	0.57
VDT056	2.38	0.11	6.0	1.12	18.7	3	1d	0.17	20.8	-1	167	0.62
VDT057	2.24	0.24	5.4	0.71	19.2	4	1d	0.44	20.6	-1	167	0.71
VDT058	2.44	0.21	0.7	0.93	19.1	4	1d	0.31	20.6	-1	167	0.53
VDT071	2.28	0.40	5.0	0.39	19.0	4	1d	0.43	19.8	10	151	0.51
VIBC01	2.32	0.07	5.1	1.15	16.6	5	1d	0.08	20.1	-1	137	0.26
VIBC02	2.54	0.50	2.5	0.28	18.9	5	1d	0.07	19.9	-1	137	0.38
VIBC03	2.41	0.47	4.9	0.29	19.6	5	1d	0.09	20.0	-1	137	0.39
VIBC04	2.48	0.06	3.7	1.35	16.5	5	1d	0.13	19.8	-1	137	0.19
VIT001	2.52	0.24	8.3	0.93	17.5	4	1d	0.28	20.2	4	240	0.50
VIT002	1.97	0.02	23.9	0.92	17.5	4	1d	0.54	20.2	4	240	0.54
VIT004	2.33	0.32	1.0	0.57	16.2	5	1d	0.13	20.4	-1	137	0.35
VIT006	2.24	0.19	5.9	0.80	18.6	4	1d	0.25	20.8	-9	167	0.69
VITB01	3.28	0.01	21.1	2.25	14.5	5	1d	0.26	20.1	-9	92	0.43
VTD005	2.20	0.30	5.3	0.56	19.4	3	1d	0.44	19.4	14	179	0.46
VTD006	2.25	0.32	5.4	0.56	19.7	3	1d	0.16	19.6	14	179	0.44
VTD007	2.99	0.02	10.7	1.94	15.5	3	1d	0.43	19.4	15	179	0.55
VTD008	2.34	0.10	5.9	1.13	18.3	4	1d	0.41	20.8	11	152	0.40
VTD009	2.22	0.31	1.0	0.55	20.6	5	1d	0.27	20.1	0	178	0.44
VTD010	2.63	0.26	21.3	0.97	19.0	5	1d	0.30	20.2	0	178	1.02
VTD011	3.08	0.05	2.9	1.93	16.8	5	1d	0.24	20.4	0	178	0.54
VTD013	2.37	0.08	0.5	1.19	18.1	5	1d	0.19	20.0	0	177	0.67
VTD014	2.46	0.22	3.1	0.93	19.0	5	1d	0.26	20.1	0	177	0.60
VTD015	2.35	0.30	1.2	0.65	20.1	5	1d	0.22	20.1	0	178	0.49
VTD016	2.21	0.10	4.5	1.00	18.1	5	1d	0.16	19.4	0	178	0.69
VTD017	2.37	0.25	2.4	0.78	19.5	5	1d	0.80	20.1	0	177	0.57
VTD018	2.30	0.02	6.2	1.25	17.9	5	1d	0.43	20.2	0	177	0.70
VTD019	2.06	0.34	4.7	0.35	16.7	5	1d	0.35	20.0	0	177	0.70
VTD021	2.01	0.02	5.6	0.99	18.5	5	1d	0.64	19.9	0	177	0.74
VTD022	2.28	0.31	3.6	0.58	20.0	4	1d	0.81	19.6	0	178	0.54
VTD026	2.28	0.08	6.9	1.08	16.8	5	1d	0.41	19.4	0	178	0.71
VTD028	2.14	0.12	2.7	0.89	19.3	5	1d	0.55	20.3	0	178	0.69
VTD029	2.40	0.20	3.3	0.93	19.2	5	1d	0.45	20.3	0	178	0.63
VTD032	2.34	0.17	3.3	0.96	19.2	5	1d	0.39	20.4	0	178	0.65
VTD033	2.78	0.15	9.8	1.38	17.6	4	1d	0.26	20.0	0	178	0.62
VTD034	3.06	0.17	2.7	1.53	17.7	4	1d	0.60	20.5	0	177	0.50
VTD035	2.38	0.22	7.7	0.86	18.3	5	1d	0.29	20.5	10	152	0.35
VTD036	2.29	0.06	6.3	1.18	17.5	5	1d	0.22	20.1	10	152	0.45
VTD037	2.37	0.06	6.4	1.23	17.4	5	1d	0.17	20.4	10	152	0.43
VTD038	2.24	0.14	5.5	0.94	18.9	4	1d	0.25	20.8	11	153	0.39
VTD039	2.21	0.38	4.7	0.40	19.8	4	1d	0.29	20.2	11	152	0.49
VTD043	2.56	0.02	19.9	1.51	16.3	4	1d	0.65	20.2	17	137	0.49
VTD044	3.17	0.18	17.4	1.63	16.1	4	1d	0.78	20.0	17	137	0.16
VTD045	2.37	0.02	3.4	1.34	17.9	5	1d	0.35	20.5	-1	167	0.61
VTD046	2.42	0.27	3.5	0.78	19.6	4	1d	0.31	20.5	-1	166	0.49

Table A.7 (continued) – Outstanding unknown objects observed at the INT.

Acronym	a	e	i	MOID	H	pos	arc	rms	R	β	ϵ	μ
VTD047	2.45	0.09	3.0	1.22	17.6	4	1d	0.61	19.9	-1	166	0.55
VTD049	2.31	0.21	3.5	0.83	18.9	5	1d	0.12	20.1	-1	166	0.57
VTD051	3.03	0.03	8.1	1.97	16.5	5	1d	0.52	20.5	-1	166	0.52
VTD052	2.39	0.17	0.8	0.99	18.8	5	1d	0.31	20.5	-1	166	0.57
VTD053	3.06	0.23	2.3	1.36	15.1	5	1d	0.30	20.2	-1	166	0.48
VTD054	3.06	0.05	3.6	1.92	16.1	4	1d	0.36	19.9	-1	166	0.50
VTD055	2.61	0.00	2.3	1.60	17.4	5	1d	0.24	20.6	-1	167	0.57
VTD056	2.38	0.11	6.0	1.12	18.7	3	1d	0.17	20.8	-1	167	0.62
VTD057	2.24	0.24	5.4	0.71	19.2	4	1d	0.44	20.6	-1	167	0.71
VTD058	2.44	0.21	0.7	0.93	19.1	4	1d	0.31	20.6	-1	167	0.53
VTD059	2.57	0.12	6.9	1.25	17.0	4	1d	0.36	20.4	10	151	0.40
VTD060	2.66	0.46	4.7	0.46	18.9	5	1d	1.04	20.3	10	151	0.45
VTD061	2.51	0.31	9.2	0.77	16.7	5	1d	0.90	20.1	10	151	0.45
VTD062	2.23	0.17	6.3	0.87	17.1	5	1d	0.46	20.7	10	151	0.49
VTD063	2.03	0.16	4.8	0.72	19.4	5	1d	0.30	20.7	10	151	0.38
VTD064	3.11	0.51	4.8	0.53	19.3	5	1d	0.56	21.0	10	151	0.44
VTD066	2.31	0.20	7.2	0.85	19.3	4	1d	0.28	21.1	10	151	0.47
VTD069	3.01	0.52	10.2	0.51	19.4	4	1d	0.51	20.5	10	151	0.60
VTD070	2.35	0.18	2.2	0.93	19.7	7	1d	0.50	21.3	0	162	0.50
VTD071	2.44	0.17	7.4	1.01	17.5	6	1d	1.27	21.2	0	162	0.58
VTD072	2.51	0.35	3.9	0.66	19.7	7	1d	0.80	21.4	0	162	0.64
VTU004	2.49	0.06	11.3	1.35	16.2	5	1d	0.47	20.3	-13	102	0.52
VTU005	2.40	0.14	2.6	1.07	18.4	7	1d	0.17	20.0	4	183	0.63
VTU007	2.31	0.23	4.1	0.79	18.1	8	1d	0.11	18.9	4	183	0.63
VTU009	2.34	0.20	3.4	0.89	19.0	4	1d	0.62	20.2	1	189	0.71
VTU011	2.27	0.03	6.6	1.20	17.4	6	1d	0.32	19.8	6	182	0.70
VTU012	2.69	0.12	6.6	1.39	17.6	3	1d	0.17	20.2	7	182	0.60
VTU014	2.38	0.29	2.8	0.69	19.8	5	1d	0.38	20.2	7	183	0.51
VTU016	2.57	0.01	2.4	1.53	16.8	5	1d	0.21	19.9	1	189	0.60
VTU019	2.54	0.05	7.6	1.41	16.7	3	1d	0.20	19.9	7	183	0.63
VTU020	1.84	0.14	22.0	0.58	18.3	6	1d	0.31	20.3	41	229	0.67
VTU021	1.03	0.02	2.1	0.02	26.4	3	1d	0.43	18.9	-9	173	4.61
VTU022	2.43	0.07	2.1	1.27	17.1	4	1d	0.43	20.5	3	202	0.52
VTU023	2.31	0.23	1.2	0.77	19.5	4	1d	0.19	20.6	3	202	0.39
VTU024	2.47	0.16	1.9	1.09	16.9	4	1d	0.23	20.6	3	202	0.50
VTU025	2.41	0.03	2.5	1.33	17.8	3	1d	0.19	20.6	3	202	0.51
VTU026	2.36	0.01	2.8	1.33	17.9	4	1d	0.24	20.7	3	202	0.52
VTU027	2.43	0.16	9.9	1.03	18.5	4	1d	0.44	20.6	3	202	0.56
VTU028	2.39	0.46	7.2	0.30	17.4	3	1d	0.26	20.6	3	202	0.72
VTU029	2.20	0.15	3.5	0.86	18.9	5	1d	0.46	20.5	3	202	0.59
VTU031	1.99	0.03	19.6	0.92	18.8	5	1d	0.14	20.5	3	202	0.90
VTU032	2.30	0.16	4.6	0.93	18.8	4	1d	0.38	20.7	8	208	0.40
VTU034	2.26	0.07	4.9	1.12	18.3	3	1d	0.12	20.7	8	208	0.43
VTU036	2.62	0.16	6.1	1.22	18.2	5	1d	0.54	20.9	8	208	0.33
VTU037	2.99	0.03	11.2	1.93	16.2	5	1d	0.22	20.1	16	187	0.53