Deliverable D2.4

H2020 COMPET-05-2015 project "Small Bodies: Near And Far (SBNAF)"

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Objectives of the WP: To produce expert-reduced Herschel data of primary focus targets: (a) of large TNOs (photometric and lightcurve observations); (b) MBAs (science and calibration observations); (c) dedicated NEA observations. To collect auxiliary infrared data from previous missions (Spitzer, Planck, WISE, Akari, IRAS, ISO, MSX) and published ground-based mid-IR, submm, millimetre observations and to prepare data for integration in a unique database. To create a database of infrared observations of all SBNAF targets (TNOs, MBAs, NEAs) with the option for extension to larger object samples.

Goal of the deliverable D2.4:

The immediate goal of this delivery (D2.4) is to provide the science community with expert reduced data products of Herschel/PACS trans-Neptunian object and Centaur observations. These TNO/Centaur observations comprise more than 1000 individual observations, covering about 400 hours Herschel observing time. The D2.4-related new products are uploaded to and accessible through the Herschel Science Archive (*http://www.cosmos.esa.int/web/herschel/science-archive*), and will also be made available via the NASA/IPAC Infrared Science Archive (IRSA) at *http://irsa.ipac.caltech.edu*.

Contents

1 Introduction

One of the important goals of the SBNAF work package "WP2 Infrared Observations" is to produce a set of high-quality data products for Herschel Space Observatory observations of Solar System objects for an upload to the Herschel Science Archive (HSA). These new products will then be available for the entire scientific community, in parallel to the standard pipeline-processed Herschel Science Archive data.

With the completion of the deliverables D2.1 Herschel tools, D2.2 NEA HSA upload, D2.3 MBA HSA upload, and D2.4 TNO HSA upload, we reach the SBNAF milestone MS3: Finalisation of expert-reduced data upload to the Herschel Science Archive. Means of verification: Availability of data in the HSA to the planetary community.

In the framework of the Small Bodies: Near and Far project we previously delivered general processing tools and scripts for Solar System observations with the PACS photometer cameras of the Herschel Space Observatory (D2.1 Herschel Tools). In the delivery D2.2 we produced expert-reduced/calibrated and object-centered images for all Herschel-PACS photometer observations of near-Earth asteroids (NEAs). These new products are available from the HSA (as User-Provided Data Products or UPDPs) together with a dedicated release note (Kiss et al., 2016). In our most recent delivery (D2.3) we provided UPDPs of main-belt asteroid (MBA) observations, including corrected multi-repetition chop-nod measurements, and optimised reduction of faint main-belt asteroids (Kiss et al., 2017a).

In the present delivery (D2.4) we focus on trans-Neptunian objects (TNOs) and Centaurs. These observations were performed under a few dedicated observing programs, the largest one being the 'TNOs are Cool! A Survey of the trans-Neptunian Region' Open Time Key Program (PI: Th. Müller). In this program, some of the targets of this program were included in the AOT Validation and Science Demonstration Phases (AOTVAL_thmuelle_2 and SDP_thmuelle_3, PI: Th. Müller).

Additional programs of PACS photometric observations of TNO and Centaurs include the Open Time Program 'Probing the extremes of the outer Solar System: short-term variability of the largest, the densest and the most distant TNOs from PACS photometry' (OT1_evileniu_1, PI: E. Vilenius); the DDT proposals 'The thermal lightcurve of Centaur (2060) 95P/Chiron' (DDT_mustdo_3; PI: E. Lellouch), '2012 DR 30: A wanderer from the far edges of the Solar System' (DDT_ckiss_2, PI: Cs. Kiss) and 'The "supercomet" candidate 2013 AZ60' (DDT_ckiss_3, PI: Cs. Kiss).

There were two main types of TNO and Centaur observations:

- Multiple-epoch observations of the same target. Here, the main goal of the observations was to obtain single, accurate flux densities of the targets in the three PACS bands (70, 100 and 160 μm). The observations were designed in a way that they could provide optimal background elimination, as confusion noise due to sky background is a major limitation for far-infrared observations of faint targets. One single OBSID lasted typically for <30 min. To achieve a sufficient signal-to-noise ratio, observations of the same target in the same band were combined. The corresponding UPDP are described in the release note from May 2017 (Kiss et al. 2017b).

- Thermal emission light curve observations. In these cases the target was observed typically for several hours, in contrast to the typically much shorter multi-epoch observations, repeating the same scanning pattern around the target up to ∼100 times. Here, the main goal was to resolve rotationally the thermal emission (thermal lightcurves). Herschel/PACS TNO and Centaur light curve observations were typically executed for one pair of filters (either 70/160 or

100/160) for a specific target, depending on the target's expected spectral energy distribution. The corresponding UPDP are described in the release note from Nov 2017 (Kiss et al. 2017c).

2 PACS chop-nod observations

The PACS photometer observations were either taken at 70 and 160 μm (blue/red), or at 100 and 160 μm (green/red) simultaneously. The two possible observing techniques for point sources were chop-nod mode (chopper and satellite movements) and scan-map mode (only satellite movements). The originally recommended PACS (Poglitsch et al. 2010) photometer observing mode for point and compact sources was the *chop-nod point-source photometry mode* (see the PACS Observer's Manual[1], Altieri et al. 2011). This mode used the PACS chopper to move the source by about 50″, corresponding to the size of about 1 blue/green bolometer matrix or the size of about half a red matrix, with a chopper frequency of 1.25 Hz. The nodding is performed by a satellite movement of the same amplitude but perpendicular to the chopping direction. On each nod-position the chopper executed 3×25 chopper cycles. The 3 sets of chopper patterns are either on the same array positions (no dithering) or on 3 different array positions (dither option). Our TNO observations were all done with the dither option where the chopper pattern was displaced in ±Y-direction (along the chopper direction) by about 8.5″ (2 2/3 blue pixels or 1 1/3 red pixels). Each chopper plateau lasted for 0.4 s (16 readouts on-board) producing 4 frames per plateau in the down-link. The full 3×25 chopper cycles per nod-position were completed in less than 1 minute. The pattern was repeated on the second nod-position. In case of repetition factors larger than 1 (in our programme we used repetition factors of 10, 16, and 36, depending on target brightness), the nod-cycles were repeated in the following way (example for 4 repetitions): nodA-nodB-nodB-nodA-nodA-nodB-nodB-nodA to minimise satellite slew times. All our chop-nod observations were taken in high gain. This mode was later superseded by the *mini scan-map mode* which had a better sensitivity and allowed for a better characterisation of the close vicinity of the target and larger scale structures in the background. Only very few TNOs were therefore observed in the chop-nod technique: Pluto as part of the AOT[2] validation programme, six TNOs of different brightness levels as part of the Science Demonstration Phase (SDP), see also Müller et al. (2010), Lim et al. (2010), and Lellouch et al. (2010). Our PACS chop-nod observations are listed in Table 1.

Chop-nod measurements of Solar System Tagets, including TNOs and Centaurs, cannot be combined to improve sensitivity. The currently available best products for these observations are the standard products in the Herschel Science Archive. The list of TNO and Centaur chop-nod observations is given in Table 1. The main-belt asteroid observations taken in chop-nod are listed in D2.3 (Kiss et al. 2017a).

3 PACS scan-map observations

Although originally not designed for point-source observations, the scan-map technique had a better performance and mini scan-maps replaced point-source chop-nod observations. We used the mini scan-map implementation as recommended in the official release note[3]. The satellite scans were done with the nominal 20″/s speed in array coordinates of 70° and 110° (along the diagonal of the

[1] `http://herschel.esac.esa.int/Docs/PACS/html/pacs_om.html`
[2] Astronomical Observation Template
[3] `http://herschel.esac.esa.int/twiki/pub/Public/PacsCalibrationWeb/PhotMiniScan_ReleaseNote_20101112.pdf`

Table 1: Herschel-PACS photometer chop-nod observations (proposals AOTVAL_thmuelle_2, SDP_thmuelle_3), taken in "point-source observing mode with dithering", high gain, SSO tracking. SAA: solar aspect angle; Dur.: duration of observation in seconds; Fil.: filter/band combination (B: 70/160 μm; G: 100/160 μm); Rep: repetition of entire chop-nod pattern.

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.
120	1342183654[1]	Pluto	-11.2	2009 Sep 11 17:14:19	1680	G	10
120	1342183655[1]	Pluto	-11.2	2009 Sep 11 17:42:50	1680	B	10
186	1342187054[2]	208996 (2003 AZ_{84})	-28.5	2009 Nov 16 19:19:14	2562	B	16
187	1342187062[2]	126154 (2001 YH_{140})	-23.2	2009 Nov 17 18:36:09	5702	B	36
188	1342187073[2]	79360 (1997 CS_{29})	-14.8	2009 Nov 18 14:22:44	5702	B	36
188	1342187074[2]	82075 (2000 YW_{134})	-16.2	2009 Nov 18 15:59:16	5702	B	36
190	1342187113[2]	42355 Typhon	27.3	2009 Nov 20 00:04:25	1621	B	10
190	1342187114[2]	42355 Typhon	27.2	2009 Nov 20 00:32:02	1621	G	10
200	1342187366[2]	136472 Makemake	15.8	2009 Nov 30 18:58:33	1621	B	10
200	1342187367[2]	136472 Makemake	15.8	2009 Nov 30 19:26:10	1621	G	10

Notes. [(1)] part of proposal "AOTVAL_thmuelle_2"; [(2)] part of proposal "SDP_thmuelle_3".

bolometer arrays). Only a few early measurements were done in slightly different angles of 63° and 117°. The scan-map observations have different scan-leg lengths of 2.5′, 3.0′, 3.5′, but always 10 legs (14 legs in case of the Chiron background measurement) and a separation of 4″. Only for the Phoebe-related measurements there are leg lengths of 15′, 20′, and 40′. Depending on the purpose of the measurements -simple photometry or full lightcurves- the repetition factors for the mini scan-maps were either very low (1-5) or very high (up to 100). All our scan-map observations were taken in high gain. The observational details of our PACS scan-map observations are listed in Tables 3 and 4.

Although it is essential for faint-target photometry, multi-epoch, combined data products are not available in the Herschel Science Archive as Standard Data Products. User-Provided Data Products of the 'TNOs are Cool!' targets, using a dedicated pipeline and reduction scheme, were uploaded to the Herschel Science Archive under the project 4000109997/13/NL/KML of the Hungarian Space Office and the European Space Agency (lead by Konkoly Observatory). A dedicated release note (Kiss et al., 2017a) contains a detailed description of the data reduction and the data products. These products should be the currently best available reduction of the 'TNOs are Cool!' target measurements. This delivery contains targets that complied with the standards of the 'TNOs are Cool!' OTKP standards, e.g. were executed with 20″/sec scan speed.

In the case of a few measurements the scan speed was set to 60″/sec (see Table 2). As these observations are not combined futher (e.g. using multiple epochs) the SPG products available in the Herschel Science Archive, reduced in the co-moving frame of the targets, sufficiently cover these observations. These measurements were later repeated with the nominal 20″/sec scan speed.

In addition to the 'TNOs are Cool!' targets, Herschel/PACS observations of two extreme Centaurs 2012 DR30 and 2013 AZ60 (observed in the programs DDT_ckiss_2 and DDT_ckiss_3) were executed using the standard OTKP scheme. These were included in a User Provided Data Product delivery to the Herschel Science Archive (see the release note Kiss et al., 2017b). **This release note and the related UPDP FITS products are essential parts of this delivery**. More details on the

Table 2: PACS photometer scan-map observations of TNOs which have been executed with a scan speed of 60″/s instead of the nominal 20″/s, all executed in SDP. The measurements have been repeated in RP with nominal scan speed.

OD	OBSID	target	remarks
236	1342188994	2002 KY_{14}	repetition in OD 579
236	1342188995	2002 KY_{14}	repetition in OD 579
236	1342188996	139775 (2001 QG_{298})	repetition in OD 620/621
236	1342188997	139775 (2001 QG_{298})	repetition in OD 620/621
236	1342188998	120348 (2004 TY_{364})	repetition in OD 455/456
236	1342188999	120348 (2004 TY_{364})	repetition in OD 455/456
236	1342189000	2002 KY_{14}	repetition in OD 579
236	1342189001	2002 KY_{14}	repetition in OD 579
237	1342189035	120216 (2004 EW_{95})	repetition in OD 413/415
237	1342189036	120216 (2004 EW_{95})	repetition in OD 413/415
237	1342189037	144897 (2004 UX_{10})	repetition in OD 413/414
237	1342189038	144897 (2004 UX_{10})	repetition in OD 413/414
237	1342189039	139775 (2001 QG_{298})	repetition in OD 620/621
237	1342189040	139775 (2001 QG_{298})	repetition in OD 620/621
238	1342189051	120347 (2004 SB_{60})	repetition in OD 404/405
238	1342189052	120347 (2004 SB_{60})	repetition in OD 404/405
238	1342189057	120216 (2004 EW_{95})	repetition in OD 413/415
238	1342189058	120216 (2004 EW_{95})	repetition in OD 413/415
258	1342189766	143707 (2003 UY_{117})	repetition in OD 1000/1001
258	1342189767	143707 (2003 UY_{117})	repetition in OD 1000/1001
259	1342189813	143707 (2003 UY_{117})	repetition in OD 1000/1001
259	1342189814	143707 (2003 UY_{117})	repetition in OD 1000/1001

thermal emission data of these extreme Centaurs can be found in Kiss et al. (2013) and Pál et al. (2015).

Currently there are no SPG products in the Herschel Science Archive that would deal with the Herschel/PACS TNO and Centaur light curve observations properly. Only a single product is available per OBSID, reduced in the co-moving frame of the target and providing a single, average flux density of the object in that specific band. To obtain true thermal emission light curves from these measurements we performed a dedicated reduction of all Herschel/PACS TNO and Centaur light curve observations, using a dedicated pipeline and reduction scheme, providing single OBSID-based, time-resolved, as well as background-corrected, combined data products. The details of the data reduction and the description of the data products are given in a dedicated release note, along with the upload of the related UPDPs to the Herschel Science Archive (Kiss et al., 2017b). **The light curve target UPDPs are an essential part of the SBNAF project and this delivery, and it completes the reduction of all Herschel/PACS dedicated TNO and Centaur measurements.** The first Herschel/PACS light curve measurements of the dwarf planet Haumea are discussed in Lellouch et al. (2010). A second set of Haumea light curve measurements along with the light curve data of 2003 VS2 and 2003 AZ84 were summarized in Santos-Sanz et al. (2017).

4 Summary of D2.4 TNO HSA upload products

All Herschel-PACS photometer observations of TNOs and Centaurs are listed in Table 1 (chop-nod measurements) and in the appendix in Tables 3 and 4. Below we summarize the various UPDP related to these measurements.

Observations	Products	Release note
NEA measurements (6 targets)	UPDPs (39 FITS files) with combined data in object reference frame	ESA HSC release note from Dec 2016 (Kiss et al. 2016)
MBA measurements (4 targets)	UPDPs (57 FITS files) of (pipeline-)failed and special (science & technical) measurements	ESA HSC release note from Mar 2017 (Kiss et al. 2017a)
TNO/Centaurs		
chop-nod measurements (taken during test phase, non-standard mode)	pipeline data are perfectly fine	—
standard scan-map measurements of "TNOs-are-Cool" project (133 targets)	UPDP (1539 FITS files) with combined epochs and cleaned background	ESA HSC release note from May 2017 (Kiss et al. 2017b)
non-standard scan-map measurements (high scan speed; 7 targets)	superseded by by later measurements in nominal mode (see Tbl. 2)	—
standard scan-map measurements from DDT/OT projects (2 targets)	UPDP (12 FITS files) with combined epochs and cleaned background	ESA HSC release note from Nov 2017 (Kiss et al. 2017c)
lightcurve measurements (8 targets)	UPDP (3608 FITS files) with/without background elimination, split up in meaningful subsets for lightcurve studies	ESA HSC release note from Nov 2017 (Kiss et al. 2017c)

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Appendix

Full list of Herschel/PACS TNO and Centaur photometric observations

Most TNO and Centaur Herschel/PACS photometric measurements were taken in "large scan" observing mode, high gain, SSO tracking, and with a satellite scan speed of 20″/s, from the proposal KPOT_thmuelle_1, unless noted otherwise in the table: (1) proposal SDP_thmuelle_3; (2) satellite scan speed: 60″/s instead of the nominal 20″/s. Measurements with 60″/s scan speed are not considered for combined data products. For these measurements we refer to the standard products of the Herschel Science Archive. All other measurements are used in combined data products of multi-epoch observations as described in Kiss et al. (2017).

Table 3: Herschel-PACS photometer scan-map observations (proposals SDP_thmuelle_3, KPOT_thmuelle_1), taken in "large scan" observing mode, high gain, SSO tracking, satellite scan speed: always 20″/s (exceptions: see footnote). The table is ordered by OD/OBSID. SAA: solar aspect angle; Dur.: duration of observation in seconds; Fil.: filter/band combination (B: 70/160 μm; G: 100/160 μm); Rep: repetition of entire scan map; scan-map parameters: scan-leg length (in arc min) × number of scan legs × scan-leg separation (in arc sec); angle: satellite scan angle in degrees with respect to instrument reference frame.

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
222	1342188416[1]	2006 SX_{368}	19.9	2009 Dec 21 19:00:54	2756	B	9	3.5′ × 10 × 4.0″	63
222	1342188417[1]	2006 SX_{368}	19.9	2009 Dec 21 19:47:29	2756	B	9	3.5′ × 10 × 4.0″	117
223	1342188470[1]	136108 Haumea	14.3	2009 Dec 23 07:31:24	12119	G	40	3.5′ × 10 × 4.0″	63
224	1342188482[1]	145480 (2005 TB_{190})	18.6	2009 Dec 23 20:06:58	2756	G	9	3.5′ × 10 × 4.0″	63
224	1342188483[1]	145480 (2005 TB_{190})	18.7	2009 Dec 23 20:53:33	2756	G	9	3.5′ × 10 × 4.0″	117
225	1342188520[1]	136108 Haumea	12.6	2009 Dec 25 06:32:29	2454	G	8	3.5′ × 10 × 4.0″	63
236	1342188994[1,2]	2002 KY_{14}	23.0	2010 Jan 04 21:30:04	1240	B	3	3.5′ × 10 × 4.0″	63
236	1342188995[1,2]	2002 KY_{14}	23.1	2010 Jan 04 21:51:32	1240	B	3	3.5′ × 10 × 4.0″	117
236	1342188996[1,2]	139775 (2001 QG_{298})	6.4	2010 Jan 04 22:23:46	2041	B	5	3.5′ × 10 × 4.0″	63
236	1342188997[1,2]	139775 (2001 QG_{298})	6.5	2010 Jan 04 22:58:36	2041	B	5	3.5′ × 10 × 4.0″	117
236	1342188998[1,2]	120348 (2004 TY_{364})	-11.2	2010 Jan 04 23:30:47	1240	B	3	3.5′ × 10 × 4.0″	63
236	1342188999[1,2]	120348 (2004 TY_{364})	-11.1	2010 Jan 04 23:52:15	1240	B	3	3.5′ × 10 × 4.0″	117
236	1342189000[1,2]	2002 KY_{14}	23.1	2010 Jan 05 00:24:50	1640	G	4	3.5′ × 10 × 4.0″	63
236	1342189001[1,2]	2002 KY_{14}	23.1	2010 Jan 05 00:52:59	1640	G	4	3.5′ × 10 × 4.0″	117
237	1342189035[1,2]	120216 (2004 EW_{95})	13.1	2010 Jan 06 04:23:45	2041	B	5	3.5′ × 10 × 4.0″	63
237	1342189036[1,2]	120216 (2004 EW_{95})	13.2	2010 Jan 06 04:58:35	2041	B	5	3.5′ × 10 × 4.0″	117
237	1342189037[1,2]	144897 (2004 UX_{10})	-13.1	2010 Jan 06 05:50:59	1240	G	3	3.5′ × 10 × 4.0″	63
237	1342189038[1,2]	144897 (2004 UX_{10})	-13.0	2010 Jan 06 06:12:27	1240	G	3	3.5′ × 10 × 4.0″	117
237	1342189039[1,2]	139775 (2001 QG_{298})	7.7	2010 Jan 06 06:43:49	2041	B	5	3.5′ × 10 × 4.0″	63
237	1342189040[1,2]	139775 (2001 QG_{298})	7.9	2010 Jan 06 07:18:39	2041	B	5	3.5′ × 10 × 4.0″	117
238	1342189051[1,2]	120347 (2004 SB_{60})	24.1	2010 Jan 06 19:43:34	1240	G	3	3.5′ × 10 × 4.0″	63
238	1342189052[1,2]	120347 (2004 SB_{60})	24.2	2010 Jan 06 20:05:02	1240	G	3	3.5′ × 10 × 4.0″	117
238	1342189057[1,2]	120216 (2004 EW_{95})	12.3	2010 Jan 07 01:42:11	2041	B	5	3.5′ × 10 × 4.0″	63
238	1342189058[1,2]	120216 (2004 EW_{95})	12.3	2010 Jan 07 02:17:01	2041	B	5	3.5′ × 10 × 4.0″	117
258	1342189766[2]	143707 (2003 UY_{117})	8.8	2010 Jan 27 14:36:23	2041	B	5	3.5′ × 10 × 4.0″	63
258	1342189767[2]	143707 (2003 UY_{117})	8.9	2010 Jan 27 15:11:13	2041	B	5	3.5′ × 10 × 4.0″	117
259	1342189813[2]	143707 (2003 UY_{117})	9.8	2010 Jan 28 13:53:54	2041	B	5	3.5′ × 10 × 4.0″	63
259	1342189814[2]	143707 (2003 UY_{117})	9.9	2010 Jan 28 14:28:44	2041	B	5	3.5′ × 10 × 4.0″	117
284	1342190913	78799 (2002 XW_{93})	-17.4	2010 Feb 21 21:57:17	855	B	3	2.5′ × 10 × 4.0″	110
284	1342190914	78799 (2002 XW_{93})	-17.4	2010 Feb 21 22:12:00	855	B	3	2.5′ × 10 × 4.0″	70
284	1342190915	78799 (2002 XW_{93})	-17.4	2010 Feb 21 22:26:43	855	G	3	2.5′ × 10 × 4.0″	110
284	1342190916	78799 (2002 XW_{93})	-17.4	2010 Feb 21 22:41:26	855	G	3	2.5′ × 10 × 4.0″	70
284	1342190917	148780 Altjira	1.8	2010 Feb 21 23:02:03	1127	B	4	2.5′ × 10 × 4.0″	110
284	1342190918	148780 Altjira	1.9	2010 Feb 21 23:21:18	1127	B	4	2.5′ × 10 × 4.0″	70
284	1342190919	148780 Altjira	1.8	2010 Feb 21 23:40:33	1127	G	4	2.5′ × 10 × 4.0″	110
284	1342190920	148780 Altjira	1.9	2010 Feb 21 23:59:48	1127	G	4	2.5′ × 10 × 4.0″	70
284	1342190921	8405 Asbolus	22.2	2010 Feb 22 00:18:25	583	B	2	2.5′ × 10 × 4.0″	110
284	1342190922	8405 Asbolus	22.2	2010 Feb 22 00:28:36	583	B	2	2.5′ × 10 × 4.0″	70
284	1342190923	8405 Asbolus	22.2	2010 Feb 22 00:38:47	583	G	2	2.5′ × 10 × 4.0″	110
284	1342190924	8405 Asbolus	22.2	2010 Feb 22 00:48:58	583	G	2	2.5′ × 10 × 4.0″	70
284	1342190925	24835 (1995 SM_{55})	22.0	2010 Feb 22 00:59:39	583	B	2	2.5′ × 10 × 4.0″	110
284	1342190926	24835 (1995 SM_{55})	22.0	2010 Feb 22 01:09:50	583	B	2	2.5′ × 10 × 4.0″	70
284	1342190927	24835 (1995 SM_{55})	22.0	2010 Feb 22 01:20:01	583	G	2	2.5′ × 10 × 4.0″	110
284	1342190928	24835 (1995 SM_{55})	22.0	2010 Feb 22 01:30:12	583	G	2	2.5′ × 10 × 4.0″	70
284	1342190929	84719 (2002 VR_{128})	19.3	2010 Feb 22 01:44:22	855	B	3	2.5′ × 10 × 4.0″	110
284	1342190930	84719 (2002 VR_{128})	19.3	2010 Feb 22 01:59:05	855	B	3	2.5′ × 10 × 4.0″	70
284	1342190931	84719 (2002 VR_{128})	19.3	2010 Feb 22 02:13:48	855	G	3	2.5′ × 10 × 4.0″	110
284	1342190932	84719 (2002 VR_{128})	19.3	2010 Feb 22 02:28:31	855	G	3	2.5′ × 10 × 4.0″	70
284	1342190937	8405 Asbolus	22.4	2010 Feb 22 06:23:01	583	B	2	2.5′ × 10 × 4.0″	110
284	1342190938	8405 Asbolus	22.5	2010 Feb 22 06:33:12	583	B	2	2.5′ × 10 × 4.0″	70
284	1342190939	8405 Asbolus	22.4	2010 Feb 22 06:43:23	583	G	2	2.5′ × 10 × 4.0″	110
284	1342190940	8405 Asbolus	22.5	2010 Feb 22 06:53:34	583	G	2	2.5′ × 10 × 4.0″	70
284	1342190949	2003 UT_{292}	2.1	2010 Feb 22 09:27:13	1127	B	4	2.5′ × 10 × 4.0″	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
284	1342190950	2003 UT_{292}	2.2	2010 Feb 22 09:46:28	1127	B	4	$2.5' \times 10 \times 4.0''$	70
284	1342190951	2003 UT_{292}	2.1	2010 Feb 22 10:05:43	1127	G	4	$2.5' \times 10 \times 4.0''$	110
284	1342190952	2003 UT_{292}	2.2	2010 Feb 22 10:24:58	1127	G	4	$2.5' \times 10 \times 4.0''$	70
284	1342190953	15874 (1996 TL_{66})	5.9	2010 Feb 22 10:40:56	583	B	2	$2.5' \times 10 \times 4.0''$	110
284	1342190954	15874 (1996 TL_{66})	5.9	2010 Feb 22 10:51:07	583	B	2	$2.5' \times 10 \times 4.0''$	70
284	1342190955	15874 (1996 TL_{66})	5.9	2010 Feb 22 11:01:18	583	G	2	$2.5' \times 10 \times 4.0''$	110
284	1342190956	15874 (1996 TL_{66})	5.9	2010 Feb 22 11:11:29	583	G	2	$2.5' \times 10 \times 4.0''$	70
284	1342190957	145453 (2005 RR_{43})	9.3	2010 Feb 22 11:23:32	583	B	2	$2.5' \times 10 \times 4.0''$	110
284	1342190958	145453 (2005 RR_{43})	9.3	2010 Feb 22 11:33:43	583	B	2	$2.5' \times 10 \times 4.0''$	70
284	1342190959	145453 (2005 RR_{43})	9.3	2010 Feb 22 11:43:54	583	G	2	$2.5' \times 10 \times 4.0''$	110
284	1342190960	145453 (2005 RR_{43})	9.3	2010 Feb 22 11:54:05	583	G	2	$2.5' \times 10 \times 4.0''$	70
284	1342190961	2003 UZ_{117}	13.3	2010 Feb 22 12:07:56	855	B	3	$2.5' \times 10 \times 4.0''$	110
284	1342190962	2003 UZ_{117}	13.3	2010 Feb 22 12:22:39	855	B	3	$2.5' \times 10 \times 4.0''$	70
284	1342190963	2003 UZ_{117}	13.3	2010 Feb 22 12:37:22	855	G	3	$2.5' \times 10 \times 4.0''$	110
284	1342190964	2003 UZ_{117}	13.3	2010 Feb 22 12:52:05	855	G	3	$2.5' \times 10 \times 4.0''$	70
285	1342190990	84719 (2002 VR_{128})	20.1	2010 Feb 22 21:23:50	855	B	3	$2.5' \times 10 \times 4.0''$	110
285	1342190991	84719 (2002 VR_{128})	20.1	2010 Feb 22 21:38:33	855	B	3	$2.5' \times 10 \times 4.0''$	70
285	1342190992	84719 (2002 VR_{128})	20.1	2010 Feb 22 21:53:16	855	G	3	$2.5' \times 10 \times 4.0''$	110
285	1342190993	84719 (2002 VR_{128})	20.1	2010 Feb 22 22:07:59	855	G	3	$2.5' \times 10 \times 4.0''$	70
285	1342190994	24835 (1995 SM_{55})	22.8	2010 Feb 22 22:22:09	583	B	2	$2.5' \times 10 \times 4.0''$	110
285	1342190995	24835 (1995 SM_{55})	22.9	2010 Feb 22 22:32:20	583	B	2	$2.5' \times 10 \times 4.0''$	70
285	1342190996	24835 (1995 SM_{55})	22.9	2010 Feb 22 22:42:31	583	G	2	$2.5' \times 10 \times 4.0''$	110
285	1342190997	24835 (1995 SM_{55})	22.9	2010 Feb 22 22:52:42	583	G	2	$2.5' \times 10 \times 4.0''$	70
285	1342191025	2003 UT_{292}	3.2	2010 Feb 23 10:39:26	1127	B	4	$2.5' \times 10 \times 4.0''$	110
285	1342191026	2003 UT_{292}	3.2	2010 Feb 23 10:58:41	1127	B	4	$2.5' \times 10 \times 4.0''$	70
285	1342191027	2003 UT_{292}	3.2	2010 Feb 23 11:17:56	1127	G	4	$2.5' \times 10 \times 4.0''$	110
285	1342191028	2003 UT_{292}	3.2	2010 Feb 23 11:37:11	1127	G	4	$2.5' \times 10 \times 4.0''$	70
285	1342191029	15874 (1996 TL_{66})	6.9	2010 Feb 23 11:53:09	583	B	2	$2.5' \times 10 \times 4.0''$	110
285	1342191030	15874 (1996 TL_{66})	7.0	2010 Feb 23 12:03:20	583	B	2	$2.5' \times 10 \times 4.0''$	70
285	1342191031	15874 (1996 TL_{66})	6.9	2010 Feb 23 12:13:31	583	G	2	$2.5' \times 10 \times 4.0''$	110
285	1342191032	15874 (1996 TL_{66})	7.0	2010 Feb 23 12:23:42	583	G	2	$2.5' \times 10 \times 4.0''$	70
285	1342191033	145453 (2005 RR_{43})	10.3	2010 Feb 23 12:35:45	583	B	2	$2.5' \times 10 \times 4.0''$	110
285	1342191034	145453 (2005 RR_{43})	10.3	2010 Feb 23 12:45:56	583	B	2	$2.5' \times 10 \times 4.0''$	70
285	1342191035	145453 (2005 RR_{43})	10.3	2010 Feb 23 12:56:07	583	G	2	$2.5' \times 10 \times 4.0''$	110
285	1342191036	145453 (2005 RR_{43})	10.4	2010 Feb 23 13:06:18	583	G	2	$2.5' \times 10 \times 4.0''$	70
285	1342191037	2003 UZ_{117}	14.4	2010 Feb 23 13:20:09	855	B	3	$2.5' \times 10 \times 4.0''$	110
285	1342191038	2003 UZ_{117}	14.3	2010 Feb 23 13:34:52	855	B	3	$2.5' \times 10 \times 4.0''$	70
285	1342191039	2003 UZ_{117}	14.4	2010 Feb 23 13:49:35	855	G	3	$2.5' \times 10 \times 4.0''$	110
285	1342191040	2003 UZ_{117}	14.4	2010 Feb 23 14:04:18	855	G	3	$2.5' \times 10 \times 4.0''$	70
286	1342191116	78799 (2002 XW_{93})	-15.3	2010 Feb 23 23:56:06	855	B	3	$2.5' \times 10 \times 4.0''$	110
286	1342191117	78799 (2002 XW_{93})	-15.3	2010 Feb 24 00:10:49	855	B	3	$2.5' \times 10 \times 4.0''$	70
286	1342191118	78799 (2002 XW_{93})	-15.3	2010 Feb 24 00:25:32	855	G	3	$2.5' \times 10 \times 4.0''$	110
286	1342191119	78799 (2002 XW_{93})	-15.3	2010 Feb 24 00:40:15	855	G	3	$2.5' \times 10 \times 4.0''$	70
286	1342191120	148780 Altjira	3.9	2010 Feb 24 01:00:52	1127	B	4	$2.5' \times 10 \times 4.0''$	110
286	1342191121	148780 Altjira	4.0	2010 Feb 24 01:20:07	1127	B	4	$2.5' \times 10 \times 4.0''$	70
286	1342191122	148780 Altjira	4.0	2010 Feb 24 01:39:22	1127	G	4	$2.5' \times 10 \times 4.0''$	70
286	1342191123	148780 Altjira	4.0	2010 Feb 24 01:58:37	1127	G	4	$2.5' \times 10 \times 4.0''$	110
300	1342191937	84922 (2003 VS_2)	14.5	2010 Mar 09 23:52:51	603	B	2	$3.0' \times 10 \times 4.0''$	110
300	1342191938	84922 (2003 VS_2)	14.5	2010 Mar 10 00:03:22	603	B	2	$3.0' \times 10 \times 4.0''$	70
300	1342191939	84922 (2003 VS_2)	14.5	2010 Mar 10 00:13:53	603	G	2	$3.0' \times 10 \times 4.0''$	110
300	1342191940	84922 (2003 VS_2)	14.5	2010 Mar 10 00:24:24	603	G	2	$3.0' \times 10 \times 4.0''$	70
300	1342191941	136204 (2003 WL_7)	15.9	2010 Mar 10 00:38:20	885	B	3	$3.0' \times 10 \times 4.0''$	110
300	1342191942	136204 (2003 WL_7)	15.9	2010 Mar 10 00:53:33	885	B	3	$3.0' \times 10 \times 4.0''$	70
300	1342191943	136204 (2003 WL_7)	15.9	2010 Mar 10 01:08:46	885	G	3	$3.0' \times 10 \times 4.0''$	110
300	1342191944	136204 (2003 WL_7)	15.9	2010 Mar 10 01:23:59	885	G	3	$3.0' \times 10 \times 4.0''$	70
300	1342191953	Pluto	15.7	2010 Mar 10 05:52:22	603	B	2	$3.0' \times 10 \times 4.0''$	110
300	1342191954	Pluto	15.7	2010 Mar 10 06:02:53	603	B	2	$3.0' \times 10 \times 4.0''$	70
300	1342191955	Pluto	15.7	2010 Mar 10 06:13:24	603	G	2	$3.0' \times 10 \times 4.0''$	110
300	1342191956	Pluto	15.7	2010 Mar 10 06:23:55	603	G	2	$3.0' \times 10 \times 4.0''$	70
300	1342191966	136204 (2003 WL_7)	16.2	2010 Mar 10 09:18:06	885	B	3	$3.0' \times 10 \times 4.0''$	110
300	1342191967	136204 (2003 WL_7)	16.2	2010 Mar 10 09:33:19	885	B	3	$3.0' \times 10 \times 4.0''$	70
300	1342191968	136204 (2003 WL_7)	16.3	2010 Mar 10 09:48:32	885	G	3	$3.0' \times 10 \times 4.0''$	110
300	1342191969	136204 (2003 WL_7)	16.2	2010 Mar 10 10:03:45	885	G	3	$3.0' \times 10 \times 4.0''$	70
300	1342191977	84922 (2003 VS_2)	15.0	2010 Mar 10 13:58:38	603	B	2	$3.0' \times 10 \times 4.0''$	110
300	1342191978	84922 (2003 VS_2)	15.1	2010 Mar 10 14:09:09	603	B	2	$3.0' \times 10 \times 4.0''$	70
300	1342191979	84922 (2003 VS_2)	15.1	2010 Mar 10 14:19:40	603	G	2	$3.0' \times 10 \times 4.0''$	70
300	1342191980	84922 (2003 VS_2)	15.1	2010 Mar 10 14:30:11	603	G	2	$3.0' \times 10 \times 4.0''$	110
300	1342191988	Pluto	15.1	2010 Mar 10 19:05:41	603	B	2	$3.0' \times 10 \times 4.0''$	110
300	1342191989	Pluto	15.2	2010 Mar 10 19:16:12	603	B	2	$3.0' \times 10 \times 4.0''$	70
300	1342191990	Pluto	15.1	2010 Mar 10 19:26:43	603	G	2	$3.0' \times 10 \times 4.0''$	110
300	1342191991	Pluto	15.1	2010 Mar 10 19:37:14	603	G	2	$3.0' \times 10 \times 4.0''$	70
316	1342192762	2002 VU_{130}	27.3	2010 Mar 25 23:37:48	885	B	3	$3.0' \times 10 \times 4.0''$	110
316	1342192763	2002 VU_{130}	27.2	2010 Mar 25 23:53:01	885	B	3	$3.0' \times 10 \times 4.0''$	70
316	1342192764	2002 VU_{130}	27.3	2010 Mar 26 00:08:14	885	G	3	$3.0' \times 10 \times 4.0''$	110
316	1342192765	2002 VU_{130}	27.3	2010 Mar 26 00:23:27	885	G	3	$3.0' \times 10 \times 4.0''$	70
316	1342192783	2002 VU_{130}	27.7	2010 Mar 26 09:41:03	885	B	3	$3.0' \times 10 \times 4.0''$	110
316	1342192784	2002 VU_{130}	27.7	2010 Mar 26 09:56:16	885	B	3	$3.0' \times 10 \times 4.0''$	70
316	1342192785	2002 VU_{130}	27.7	2010 Mar 26 10:11:29	885	G	3	$3.0' \times 10 \times 4.0''$	110
316	1342192786	2002 VU_{130}	27.7	2010 Mar 26 10:26:42	885	G	3	$3.0' \times 10 \times 4.0''$	70
321	1342193126	2002 XV_{93}	20.8	2010 Mar 31 13:40:56	885	B	3	$3.0' \times 10 \times 4.0''$	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
321	1342193127	2002 XV_{93}	20.8	2010 Mar 31 13:56:09	885	B	3	$3.0' \times 10 \times 4.0''$	70
321	1342193128	2002 XV_{93}	20.8	2010 Mar 31 14:11:22	885	G	3	$3.0' \times 10 \times 4.0''$	110
321	1342193129	2002 XV_{93}	20.8	2010 Mar 31 14:26:35	885	G	3	$3.0' \times 10 \times 4.0''$	70
322	1342193175	2002 XV_{93}	21.5	2010 Apr 01 06:42:28	885	B	3	$3.0' \times 10 \times 4.0''$	110
322	1342193176	2002 XV_{93}	21.5	2010 Apr 01 06:57:41	885	B	3	$3.0' \times 10 \times 4.0''$	70
322	1342193177	2002 XV_{93}	21.5	2010 Apr 01 07:12:54	885	G	3	$3.0' \times 10 \times 4.0''$	70
322	1342193178	2002 XV_{93}	21.5	2010 Apr 01 07:28:07	885	G	3	$3.0' \times 10 \times 4.0''$	110
344	1342195392	2060 Chiron	27.1	2010 Apr 23 00:05:39	603	B	2	$3.0' \times 10 \times 4.0''$	110
344	1342195393	2060 Chiron	27.1	2010 Apr 23 00:16:10	603	B	2	$3.0' \times 10 \times 4.0''$	70
344	1342195394	2060 Chiron	27.1	2010 Apr 23 00:26:41	603	G	2	$3.0' \times 10 \times 4.0''$	110
344	1342195395	2060 Chiron	27.1	2010 Apr 23 00:37:12	603	G	2	$3.0' \times 10 \times 4.0''$	70
344	1342195396	2004 PT_{107}	22.0	2010 Apr 23 00:51:59	885	B	3	$3.0' \times 10 \times 4.0''$	110
344	1342195397	2004 PT_{107}	22.0	2010 Apr 23 01:07:12	885	B	3	$3.0' \times 10 \times 4.0''$	70
344	1342195398	2004 PT_{107}	22.0	2010 Apr 23 01:22:25	885	G	3	$3.0' \times 10 \times 4.0''$	110
344	1342195399	2004 PT_{107}	22.0	2010 Apr 23 01:37:38	885	G	3	$3.0' \times 10 \times 4.0''$	70
344	1342195404	2060 Chiron	26.8	2010 Apr 23 07:08:55	603	B	2	$3.0' \times 10 \times 4.0''$	110
344	1342195405	2060 Chiron	26.9	2010 Apr 23 07:19:26	603	B	2	$3.0' \times 10 \times 4.0''$	70
344	1342195406	2060 Chiron	26.8	2010 Apr 23 07:29:57	603	G	2	$3.0' \times 10 \times 4.0''$	110
344	1342195407	2060 Chiron	26.9	2010 Apr 23 07:40:28	603	G	2	$3.0' \times 10 \times 4.0''$	70
345	1342195462	2004 PT_{107}	21.2	2010 Apr 23 22:21:38	885	B	3	$3.0' \times 10 \times 4.0''$	110
345	1342195463	2004 PT_{107}	21.1	2010 Apr 23 22:36:51	885	B	3	$3.0' \times 10 \times 4.0''$	70
345	1342195464	2004 PT_{107}	21.2	2010 Apr 23 22:52:04	885	G	3	$3.0' \times 10 \times 4.0''$	110
345	1342195465	2004 PT_{107}	21.1	2010 Apr 23 23:07:17	885	G	3	$3.0' \times 10 \times 4.0''$	70
346	1342195506	119878 (2002 CY_{224})	-19.0	2010 Apr 24 23:52:23	885	B	3	$3.0' \times 10 \times 4.0''$	110
346	1342195507	119878 (2002 CY_{224})	-19.0	2010 Apr 25 00:07:36	885	B	3	$3.0' \times 10 \times 4.0''$	70
346	1342195508	119878 (2002 CY_{224})	-19.0	2010 Apr 25 00:22:49	885	G	3	$3.0' \times 10 \times 4.0''$	110
346	1342195509	119878 (2002 CY_{224})	-19.0	2010 Apr 25 00:38:02	885	G	3	$3.0' \times 10 \times 4.0''$	70
347	1342195583	145452 (2005 RN_{43})	27.9	2010 Apr 25 22:04:32	603	B	2	$3.0' \times 10 \times 4.0''$	110
347	1342195584	145452 (2005 RN_{43})	28.0	2010 Apr 25 22:15:03	603	B	2	$3.0' \times 10 \times 4.0''$	70
347	1342195585	145452 (2005 RN_{43})	27.9	2010 Apr 25 22:25:34	603	G	2	$3.0' \times 10 \times 4.0''$	110
347	1342195586	145452 (2005 RN_{43})	28.0	2010 Apr 25 22:36:05	603	G	2	$3.0' \times 10 \times 4.0''$	70
348	1342195600	145452 (2005 RN_{43})	27.0	2010 Apr 26 21:26:00	603	B	2	$3.0' \times 10 \times 4.0''$	110
348	1342195601	145452 (2005 RN_{43})	27.1	2010 Apr 26 21:36:31	603	B	2	$3.0' \times 10 \times 4.0''$	70
348	1342195602	145452 (2005 RN_{43})	27.0	2010 Apr 26 21:47:02	603	G	2	$3.0' \times 10 \times 4.0''$	110
348	1342195603	145452 (2005 RN_{43})	27.0	2010 Apr 26 21:57:33	603	G	2	$3.0' \times 10 \times 4.0''$	70
348	1342195610	119878 (2002 CY_{224})	-17.1	2010 Apr 26 23:28:43	885	B	3	$3.0' \times 10 \times 4.0''$	110
348	1342195611	119878 (2002 CY_{224})	-17.1	2010 Apr 26 23:43:56	885	B	3	$3.0' \times 10 \times 4.0''$	70
348	1342195612	119878 (2002 CY_{224})	-17.1	2010 Apr 26 23:59:09	885	G	3	$3.0' \times 10 \times 4.0''$	70
348	1342195613	119878 (2002 CY_{224})	-17.0	2010 Apr 27 00:14:22	885	G	3	$3.0' \times 10 \times 4.0''$	110
360	1342195997	90482 Orcus	-10.7	2010 May 08 23:59:52	603	B	2	$3.0' \times 10 \times 4.0''$	110
360	1342195998	90482 Orcus	-10.7	2010 May 09 00:10:23	603	B	2	$3.0' \times 10 \times 4.0''$	70
360	1342195999	90482 Orcus	-10.7	2010 May 09 00:20:54	603	G	2	$3.0' \times 10 \times 4.0''$	110
360	1342196000	90482 Orcus	-10.7	2010 May 09 00:31:25	603	G	2	$3.0' \times 10 \times 4.0''$	70
360	1342196004	79360 (1997 CS_{29})	9.1	2010 May 09 01:05:07	885	B	3	$3.0' \times 10 \times 4.0''$	110
360	1342196005	79360 (1997 CS_{29})	9.1	2010 May 09 01:20:20	885	B	3	$3.0' \times 10 \times 4.0''$	70
360	1342196006	79360 (1997 CS_{29})	9.2	2010 May 09 01:35:33	885	G	3	$3.0' \times 10 \times 4.0''$	110
360	1342196007	79360 (1997 CS_{29})	9.1	2010 May 09 01:50:46	885	G	3	$3.0' \times 10 \times 4.0''$	70
360	1342196008	82075 (2000 YW_{134})	10.5	2010 May 09 02:09:04	1167	B	4	$3.0' \times 10 \times 4.0''$	110
360	1342196009	82075 (2000 YW_{134})	10.5	2010 May 09 02:28:59	1167	B	4	$3.0' \times 10 \times 4.0''$	70
360	1342196010	82075 (2000 YW_{134})	10.5	2010 May 09 02:48:54	1167	G	4	$3.0' \times 10 \times 4.0''$	110
360	1342196011	82075 (2000 YW_{134})	10.5	2010 May 09 03:08:49	1167	G	4	$3.0' \times 10 \times 4.0''$	70
361	1342196099	88611 Teharonhiawak	16.5	2010 May 09 21:48:36	1167	B	4	$3.0' \times 10 \times 4.0''$	110
361	1342196100	88611 Teharonhiawak	16.5	2010 May 09 22:08:31	1167	B	4	$3.0' \times 10 \times 4.0''$	70
361	1342196101	88611 Teharonhiawak	16.4	2010 May 09 22:28:26	1167	G	4	$3.0' \times 10 \times 4.0''$	110
361	1342196102	88611 Teharonhiawak	16.4	2010 May 09 22:48:21	1167	G	4	$3.0' \times 10 \times 4.0''$	70
361	1342196129	90482 Orcus	-9.6	2010 May 10 06:41:14	603	B	2	$3.0' \times 10 \times 4.0''$	110
361	1342196130	90482 Orcus	-9.5	2010 May 10 06:51:45	603	B	2	$3.0' \times 10 \times 4.0''$	70
361	1342196131	90482 Orcus	-9.5	2010 May 10 07:02:16	603	G	2	$3.0' \times 10 \times 4.0''$	110
361	1342196132	90482 Orcus	-9.5	2010 May 10 07:12:47	603	G	2	$3.0' \times 10 \times 4.0''$	70
361	1342196133	82075 (2000 YW_{134})	11.6	2010 May 10 07:32:54	1167	B	4	$3.0' \times 10 \times 4.0''$	110
361	1342196134	82075 (2000 YW_{134})	11.7	2010 May 10 07:52:49	1167	B	4	$3.0' \times 10 \times 4.0''$	70
361	1342196135	82075 (2000 YW_{134})	11.6	2010 May 10 08:12:44	1167	G	4	$3.0' \times 10 \times 4.0''$	110
361	1342196136	82075 (2000 YW_{134})	11.7	2010 May 10 08:32:39	1167	G	4	$3.0' \times 10 \times 4.0''$	70
361	1342196137	79360 (1997 CS_{29})	10.4	2010 May 10 08:50:56	885	B	3	$3.0' \times 10 \times 4.0''$	110
361	1342196138	79360 (1997 CS_{29})	10.4	2010 May 10 09:06:09	885	B	3	$3.0' \times 10 \times 4.0''$	70
361	1342196139	79360 (1997 CS_{29})	10.4	2010 May 10 09:21:22	885	G	3	$3.0' \times 10 \times 4.0''$	70
361	1342196140	79360 (1997 CS_{29})	10.4	2010 May 10 09:36:35	885	G	3	$3.0' \times 10 \times 4.0''$	110
361	1342196145	88611 Teharonhiawak	15.7	2010 May 10 17:59:39	1167	B	4	$3.0' \times 10 \times 4.0''$	110
361	1342196146	88611 Teharonhiawak	15.7	2010 May 10 18:19:34	1167	B	4	$3.0' \times 10 \times 4.0''$	70
361	1342196147	88611 Teharonhiawak	15.6	2010 May 10 18:39:29	1167	G	4	$3.0' \times 10 \times 4.0''$	110
361	1342196148	88611 Teharonhiawak	15.7	2010 May 10 18:59:24	1167	G	4	$3.0' \times 10 \times 4.0''$	70
371	1342196759	2006 SX_{368}	18.8	2010 May 20 12:49:41	885	B	3	$3.0' \times 10 \times 4.0''$	110
371	1342196760	2006 SX_{368}	18.8	2010 May 20 13:04:54	885	B	3	$3.0' \times 10 \times 4.0''$	70
371	1342196761	2006 SX_{368}	18.8	2010 May 20 13:20:07	885	G	3	$3.0' \times 10 \times 4.0''$	110
371	1342196762	2006 SX_{368}	18.8	2010 May 20 13:35:20	885	G	3	$3.0' \times 10 \times 4.0''$	70
371	1342196771	2006 SX_{368}	18.7	2010 May 20 17:57:21	885	B	3	$3.0' \times 10 \times 4.0''$	110
371	1342196772	2006 SX_{368}	18.7	2010 May 20 18:12:34	885	B	3	$3.0' \times 10 \times 4.0''$	70
371	1342196773	2006 SX_{368}	18.7	2010 May 20 18:27:47	885	G	3	$3.0' \times 10 \times 4.0''$	110
371	1342196774	2006 SX_{368}	18.6	2010 May 20 18:43:00	885	G	3	$3.0' \times 10 \times 4.0''$	70
385	1342197657	136472 Makemake	-10.8	2010 Jun 02 21:54:55	885	B	3	$3.0' \times 10 \times 4.0''$	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
385	1342197658	136472 Makemake	-10.9	2010 Jun 02 22:10:08	885	B	3	$3.0' \times 10 \times 4.0''$	70
385	1342197659	136472 Makemake	-10.8	2010 Jun 02 22:25:21	885	G	3	$3.0' \times 10 \times 4.0''$	110
385	1342197660	136472 Makemake	-10.8	2010 Jun 02 22:40:34	885	G	3	$3.0' \times 10 \times 4.0''$	70
385	1342197661	2001 QF_{298}	16.3	2010 Jun 02 23:18:38	885	B	3	$3.0' \times 10 \times 4.0''$	110
385	1342197662	2001 QF_{298}	16.3	2010 Jun 02 23:33:51	885	B	3	$3.0' \times 10 \times 4.0''$	70
385	1342197663	2001 QF_{298}	16.3	2010 Jun 02 23:49:04	885	G	3	$3.0' \times 10 \times 4.0''$	110
385	1342197664	2001 QF_{298}	16.3	2010 Jun 03 00:04:17	885	G	3	$3.0' \times 10 \times 4.0''$	70
385	1342197665	138537 (2000 OK_{67})	4.1	2010 Jun 03 00:24:31	1167	B	4	$3.0' \times 10 \times 4.0''$	110
385	1342197666	138537 (2000 OK_{67})	4.1	2010 Jun 03 00:44:26	1167	B	4	$3.0' \times 10 \times 4.0''$	70
385	1342197667	138537 (2000 OK_{67})	4.1	2010 Jun 03 01:04:21	1167	G	4	$3.0' \times 10 \times 4.0''$	110
385	1342197668	138537 (2000 OK_{67})	4.1	2010 Jun 03 01:24:16	1167	G	4	$3.0' \times 10 \times 4.0''$	70
385	1342197669	120178 (2003 OP_{32})	-10.8	2010 Jun 03 01:43:36	603	B	2	$3.0' \times 10 \times 4.0''$	110
385	1342197670	120178 (2003 OP_{32})	-10.8	2010 Jun 03 01:54:07	603	B	2	$3.0' \times 10 \times 4.0''$	70
385	1342197671	120178 (2003 OP_{32})	-10.8	2010 Jun 03 02:04:38	603	G	2	$3.0' \times 10 \times 4.0''$	110
385	1342197672	120178 (2003 OP_{32})	-10.8	2010 Jun 03 02:15:09	603	G	2	$3.0' \times 10 \times 4.0''$	70
385	1342197681	2001 QF_{298}	15.8	2010 Jun 03 13:18:53	885	B	3	$3.0' \times 10 \times 4.0''$	110
385	1342197682	2001 QF_{298}	15.8	2010 Jun 03 13:34:06	885	B	3	$3.0' \times 10 \times 4.0''$	70
385	1342197683	2001 QF_{298}	15.8	2010 Jun 03 13:49:19	885	G	3	$3.0' \times 10 \times 4.0''$	110
385	1342197684	2001 QF_{298}	15.7	2010 Jun 03 14:04:32	885	G	3	$3.0' \times 10 \times 4.0''$	70
385	1342197691	2000 CN_{105}	3.6	2010 Jun 03 16:27:47	885	B	3	$3.0' \times 10 \times 4.0''$	110
385	1342197692	2000 CN_{105}	3.6	2010 Jun 03 16:43:00	885	B	3	$3.0' \times 10 \times 4.0''$	70
385	1342197693	2000 CN_{105}	3.6	2010 Jun 03 16:58:13	885	G	3	$3.0' \times 10 \times 4.0''$	110
385	1342197694	2000 CN_{105}	3.6	2010 Jun 03 17:13:26	885	G	3	$3.0' \times 10 \times 4.0''$	70
385	1342197695	136472 Makemake	-10.2	2010 Jun 03 17:33:44	885	B	3	$3.0' \times 10 \times 4.0''$	70
385	1342197696	136472 Makemake	-10.2	2010 Jun 03 17:48:57	885	B	3	$3.0' \times 10 \times 4.0''$	110
385	1342197697	136472 Makemake	-10.1	2010 Jun 03 18:04:10	885	G	3	$3.0' \times 10 \times 4.0''$	110
385	1342197698	136472 Makemake	-10.2	2010 Jun 03 18:19:23	885	G	3	$3.0' \times 10 \times 4.0''$	70
386	1342197717	138537 (2000 OK_{67})	2.6	2010 Jun 04 13:24:11	1167	B	4	$3.0' \times 10 \times 4.0''$	110
386	1342197718	138537 (2000 OK_{67})	2.7	2010 Jun 04 13:44:06	1167	B	4	$3.0' \times 10 \times 4.0''$	70
386	1342197719	138537 (2000 OK_{67})	2.6	2010 Jun 04 14:04:01	1167	G	4	$3.0' \times 10 \times 4.0''$	110
386	1342197720	138537 (2000 OK_{67})	2.6	2010 Jun 04 14:23:56	1167	G	4	$3.0' \times 10 \times 4.0''$	70
386	1342197721	120178 (2003 OP_{32})	-12.2	2010 Jun 04 14:43:16	603	B	2	$3.0' \times 10 \times 4.0''$	110
386	1342197722	120178 (2003 OP_{32})	-12.2	2010 Jun 04 14:53:47	603	B	2	$3.0' \times 10 \times 4.0''$	70
386	1342197723	120178 (2003 OP_{32})	-12.2	2010 Jun 04 15:04:18	603	G	2	$3.0' \times 10 \times 4.0''$	70
386	1342197724	120178 (2003 OP_{32})	-12.2	2010 Jun 04 15:14:49	603	G	2	$3.0' \times 10 \times 4.0''$	110
387	1342197781	2000 CN_{105}	4.7	2010 Jun 04 21:26:18	885	B	3	$3.0' \times 10 \times 4.0''$	110
387	1342197782	2000 CN_{105}	4.7	2010 Jun 04 21:41:31	885	B	3	$3.0' \times 10 \times 4.0''$	70
387	1342197783	2000 CN_{105}	4.7	2010 Jun 04 21:56:44	885	G	3	$3.0' \times 10 \times 4.0''$	110
387	1342197784	2000 CN_{105}	4.7	2010 Jun 04 22:11:57	885	G	3	$3.0' \times 10 \times 4.0''$	70
403	1342198847	2002 GV_{31}	14.5	2010 Jun 20 19:43:37	885	B	3	$3.0' \times 10 \times 4.0''$	110
403	1342198848	2002 GV_{31}	14.5	2010 Jun 20 19:58:50	885	B	3	$3.0' \times 10 \times 4.0''$	70
403	1342198849	2002 GV_{31}	14.5	2010 Jun 20 20:14:03	885	G	3	$3.0' \times 10 \times 4.0''$	110
403	1342198850	2002 GV_{31}	14.5	2010 Jun 20 20:29:16	885	G	3	$3.0' \times 10 \times 4.0''$	70
403	1342198851	136108 Haumea	-14.2	2010 Jun 20 22:52:57	15548	G	55	$3.0' \times 10 \times 4.0''$	70
404	1342198897	2002 GV_{31}	15.5	2010 Jun 21 21:31:11	885	B	3	$3.0' \times 10 \times 4.0''$	110
404	1342198898	2002 GV_{31}	15.5	2010 Jun 21 21:46:24	885	B	3	$3.0' \times 10 \times 4.0''$	70
404	1342198899	2002 GV_{31}	15.5	2010 Jun 21 22:01:37	885	G	3	$3.0' \times 10 \times 4.0''$	110
404	1342198900	2002 GV_{31}	15.5	2010 Jun 21 22:16:50	885	G	3	$3.0' \times 10 \times 4.0''$	70
404	1342198903	136108 Haumea	-13.4	2010 Jun 21 22:45:14	603	B	2	$3.0' \times 10 \times 4.0''$	110
404	1342198904	136108 Haumea	-13.3	2010 Jun 21 22:55:45	603	B	2	$3.0' \times 10 \times 4.0''$	70
404	1342198905	136108 Haumea	-13.3	2010 Jun 21 23:06:16	603	G	2	$3.0' \times 10 \times 4.0''$	110
404	1342198906	136108 Haumea	-13.3	2010 Jun 21 23:16:47	603	G	2	$3.0' \times 10 \times 4.0''$	70
404	1342198913	120347 (2004 SB_{60})	-6.4	2010 Jun 22 01:00:04	603	B	2	$3.0' \times 10 \times 4.0''$	110
404	1342198914	120347 (2004 SB_{60})	-6.4	2010 Jun 22 01:10:35	603	B	2	$3.0' \times 10 \times 4.0''$	70
404	1342198915	120347 (2004 SB_{60})	-6.4	2010 Jun 22 01:21:06	603	G	2	$3.0' \times 10 \times 4.0''$	110
404	1342198916	120347 (2004 SB_{60})	-6.4	2010 Jun 22 01:31:37	603	G	2	$3.0' \times 10 \times 4.0''$	70
405	1342199133	120347 (2004 SB_{60})	-7.0	2010 Jun 22 18:40:36	603	B	2	$3.0' \times 10 \times 4.0''$	70
405	1342199134	120347 (2004 SB_{60})	-7.1	2010 Jun 22 18:51:07	603	B	2	$3.0' \times 10 \times 4.0''$	110
405	1342199135	120347 (2004 SB_{60})	-7.1	2010 Jun 22 19:01:38	603	G	2	$3.0' \times 10 \times 4.0''$	110
405	1342199136	120347 (2004 SB_{60})	-7.0	2010 Jun 22 19:12:09	603	G	2	$3.0' \times 10 \times 4.0''$	70
413	1342199483	120216 (2004 EW_{95})	-16.8	2010 Jun 30 19:11:49	885	B	3	$3.0' \times 10 \times 4.0''$	110
413	1342199484	120216 (2004 EW_{95})	-16.8	2010 Jun 30 19:27:02	885	B	3	$3.0' \times 10 \times 4.0''$	70
413	1342199485	120216 (2004 EW_{95})	-16.7	2010 Jun 30 19:42:15	885	G	3	$3.0' \times 10 \times 4.0''$	110
413	1342199486	120216 (2004 EW_{95})	-16.8	2010 Jun 30 19:57:28	885	G	3	$3.0' \times 10 \times 4.0''$	70
413	1342199487	136199 Eris	13.4	2010 Jun 30 20:36:49	885	B	3	$3.0' \times 10 \times 4.0''$	110
413	1342199488	136199 Eris	13.3	2010 Jun 30 20:52:02	885	B	3	$3.0' \times 10 \times 4.0''$	70
413	1342199489	136199 Eris	13.3	2010 Jun 30 21:07:15	885	G	3	$3.0' \times 10 \times 4.0''$	110
413	1342199490	136199 Eris	13.3	2010 Jun 30 21:22:28	885	G	3	$3.0' \times 10 \times 4.0''$	70
413	1342199491	47171 (1999 TC_{36})	14.1	2010 Jun 30 21:36:57	603	B	2	$3.0' \times 10 \times 4.0''$	110
413	1342199492	47171 (1999 TC_{36})	14.2	2010 Jun 30 21:47:28	603	B	2	$3.0' \times 10 \times 4.0''$	70
413	1342199493	47171 (1999 TC_{36})	14.1	2010 Jun 30 21:57:59	603	G	2	$3.0' \times 10 \times 4.0''$	110
413	1342199494	47171 (1999 TC_{36})	14.1	2010 Jun 30 22:08:30	603	G	2	$3.0' \times 10 \times 4.0''$	70
413	1342199495	144897 (2004 UX_{10})	23.6	2010 Jun 30 22:21:15	603	B	2	$3.0' \times 10 \times 4.0''$	110
413	1342199496	144897 (2004 UX_{10})	23.6	2010 Jun 30 22:31:46	603	B	2	$3.0' \times 10 \times 4.0''$	70
413	1342199497	144897 (2004 UX_{10})	23.6	2010 Jun 30 22:42:17	603	G	2	$3.0' \times 10 \times 4.0''$	110
413	1342199498	144897 (2004 UX_{10})	23.6	2010 Jun 30 22:52:48	603	G	2	$3.0' \times 10 \times 4.0''$	70
413	1342199499	26308 (1998 SM_{165})	23.5	2010 Jun 30 23:06:35	885	B	3	$3.0' \times 10 \times 4.0''$	110
413	1342199500	26308 (1998 SM_{165})	23.4	2010 Jun 30 23:21:48	885	B	3	$3.0' \times 10 \times 4.0''$	70
413	1342199501	26308 (1998 SM_{165})	23.4	2010 Jun 30 23:37:01	885	G	3	$3.0' \times 10 \times 4.0''$	110
413	1342199502	26308 (1998 SM_{165})	23.4	2010 Jun 30 23:52:14	885	G	3	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
413	1342199503	2001 RZ_{143}	23.4	2010 Jul 01 00:14:06	1448	B	5	$3.0' \times 10 \times 4.0''$	110
413	1342199504	2001 RZ_{143}	23.4	2010 Jul 01 00:38:43	1449	B	5	$3.0' \times 10 \times 4.0''$	70
413	1342199505	2001 RZ_{143}	23.4	2010 Jul 01 01:03:20	1448	G	5	$3.0' \times 10 \times 4.0''$	110
413	1342199506	2001 RZ_{143}	23.4	2010 Jul 01 01:27:57	1449	G	5	$3.0' \times 10 \times 4.0''$	70
413	1342199507	42301 (2001 UR_{163})	21.7	2010 Jul 01 01:46:12	603	B	2	$3.0' \times 10 \times 4.0''$	110
413	1342199508	42301 (2001 UR_{163})	21.7	2010 Jul 01 01:56:43	603	B	2	$3.0' \times 10 \times 4.0''$	70
413	1342199509	42301 (2001 UR_{163})	21.7	2010 Jul 01 02:07:14	603	G	2	$3.0' \times 10 \times 4.0''$	110
413	1342199510	42301 (2001 UR_{163})	21.7	2010 Jul 01 02:17:45	603	G	2	$3.0' \times 10 \times 4.0''$	70
414	1342199614	2001 RZ_{143}	22.7	2010 Jul 01 19:49:43	1448	B	5	$3.0' \times 10 \times 4.0''$	110
414	1342199615	2001 RZ_{143}	22.6	2010 Jul 01 20:14:20	1449	B	5	$3.0' \times 10 \times 4.0''$	70
414	1342199616	2001 RZ_{143}	22.6	2010 Jul 01 20:38:57	1448	G	5	$3.0' \times 10 \times 4.0''$	110
414	1342199617	2001 RZ_{143}	22.6	2010 Jul 01 21:03:34	1449	G	5	$3.0' \times 10 \times 4.0''$	70
414	1342199618	120181 (2003 UR_{292})	21.8	2010 Jul 01 21:24:41	885	B	3	$3.0' \times 10 \times 4.0''$	110
414	1342199619	120181 (2003 UR_{292})	21.7	2010 Jul 01 21:39:54	885	B	3	$3.0' \times 10 \times 4.0''$	70
414	1342199620	120181 (2003 UR_{292})	21.8	2010 Jul 01 21:55:07	885	G	3	$3.0' \times 10 \times 4.0''$	110
414	1342199621	120181 (2003 UR_{292})	21.7	2010 Jul 01 22:10:20	885	G	3	$3.0' \times 10 \times 4.0''$	70
414	1342199622	26308 (1998 SM_{165})	22.5	2010 Jul 01 22:26:55	885	B	3	$3.0' \times 10 \times 4.0''$	110
414	1342199623	26308 (1998 SM_{165})	22.5	2010 Jul 01 22:42:08	885	B	3	$3.0' \times 10 \times 4.0''$	70
414	1342199624	26308 (1998 SM_{165})	22.5	2010 Jul 01 22:57:21	885	G	3	$3.0' \times 10 \times 4.0''$	70
414	1342199625	26308 (1998 SM_{165})	22.5	2010 Jul 01 23:12:34	885	G	3	$3.0' \times 10 \times 4.0''$	110
414	1342199626	144897 (2004 UX_{10})	22.6	2010 Jul 01 23:26:20	603	B	2	$3.0' \times 10 \times 4.0''$	110
414	1342199627	144897 (2004 UX_{10})	22.7	2010 Jul 01 23:36:51	603	B	2	$3.0' \times 10 \times 4.0''$	70
414	1342199628	144897 (2004 UX_{10})	22.6	2010 Jul 01 23:47:22	603	G	2	$3.0' \times 10 \times 4.0''$	110
414	1342199629	144897 (2004 UX_{10})	22.6	2010 Jul 01 23:57:53	603	G	2	$3.0' \times 10 \times 4.0''$	70
414	1342199630	47171 (1999 TC_{36})	13.1	2010 Jul 02 00:10:37	603	B	2	$3.0' \times 10 \times 4.0''$	110
414	1342199631	47171 (1999 TC_{36})	13.1	2010 Jul 02 00:21:08	603	B	2	$3.0' \times 10 \times 4.0''$	70
414	1342199632	47171 (1999 TC_{36})	13.1	2010 Jul 02 00:31:39	603	G	2	$3.0' \times 10 \times 4.0''$	110
414	1342199633	47171 (1999 TC_{36})	13.1	2010 Jul 02 00:42:10	603	G	2	$3.0' \times 10 \times 4.0''$	70
414	1342199646	120181 (2003 UR_{292})	21.2	2010 Jul 02 12:18:44	885	B	3	$3.0' \times 10 \times 4.0''$	110
414	1342199647	120181 (2003 UR_{292})	21.2	2010 Jul 02 12:33:57	885	B	3	$3.0' \times 10 \times 4.0''$	70
414	1342199648	120181 (2003 UR_{292})	21.2	2010 Jul 02 12:49:10	885	G	3	$3.0' \times 10 \times 4.0''$	110
414	1342199649	120181 (2003 UR_{292})	21.1	2010 Jul 02 13:04:23	885	G	3	$3.0' \times 10 \times 4.0''$	70
414	1342199650	42301 (2001 UR_{163})	20.3	2010 Jul 02 13:18:26	603	B	2	$3.0' \times 10 \times 4.0''$	110
414	1342199651	42301 (2001 UR_{163})	20.3	2010 Jul 02 13:28:57	603	B	2	$3.0' \times 10 \times 4.0''$	70
414	1342199652	42301 (2001 UR_{163})	20.3	2010 Jul 02 13:39:28	603	G	2	$3.0' \times 10 \times 4.0''$	110
414	1342199653	42301 (2001 UR_{163})	20.3	2010 Jul 02 13:49:59	603	G	2	$3.0' \times 10 \times 4.0''$	70
415	1342199712	120216 (2004 EW_{95})	-14.6	2010 Jul 03 01:38:24	885	B	3	$3.0' \times 10 \times 4.0''$	110
415	1342199713	120216 (2004 EW_{95})	-14.6	2010 Jul 03 01:53:37	885	B	3	$3.0' \times 10 \times 4.0''$	70
415	1342199714	120216 (2004 EW_{95})	-14.6	2010 Jul 03 02:08:50	885	G	3	$3.0' \times 10 \times 4.0''$	110
415	1342199715	120216 (2004 EW_{95})	-14.6	2010 Jul 03 02:24:03	885	G	3	$3.0' \times 10 \times 4.0''$	70
416	1342199753	136199 Eris	10.6	2010 Jul 03 19:21:39	885	B	3	$3.0' \times 10 \times 4.0''$	110
416	1342199754	136199 Eris	10.6	2010 Jul 03 19:36:52	885	B	3	$3.0' \times 10 \times 4.0''$	70
416	1342199755	136199 Eris	10.6	2010 Jul 03 19:52:05	885	G	3	$3.0' \times 10 \times 4.0''$	70
416	1342199756	136199 Eris	10.6	2010 Jul 03 20:07:18	885	G	3	$3.0' \times 10 \times 4.0''$	110
436	1342201153	60558 Echeclus	-17.8	2010 Jul 23 17:51:57	603	B	2	$3.0' \times 10 \times 4.0''$	110
436	1342201154	60558 Echeclus	-17.8	2010 Jul 23 18:02:28	603	B	2	$3.0' \times 10 \times 4.0''$	70
436	1342201155	60558 Echeclus	-17.8	2010 Jul 23 18:12:59	603	G	2	$3.0' \times 10 \times 4.0''$	110
436	1342201156	60558 Echeclus	-17.7	2010 Jul 23 18:23:30	603	G	2	$3.0' \times 10 \times 4.0''$	70
437	1342201194	60558 Echeclus	-16.1	2010 Jul 25 13:15:12	603	B	2	$3.0' \times 10 \times 4.0''$	110
437	1342201195	60558 Echeclus	-16.0	2010 Jul 25 13:25:43	603	B	2	$3.0' \times 10 \times 4.0''$	70
437	1342201196	60558 Echeclus	-16.1	2010 Jul 25 13:36:14	603	G	2	$3.0' \times 10 \times 4.0''$	110
437	1342201197	60558 Echeclus	-16.0	2010 Jul 25 13:46:45	603	G	2	$3.0' \times 10 \times 4.0''$	70
449	1342202227	90377 Sedna	8.8	2010 Aug 06 11:05:31	1448	B	5	$3.0' \times 10 \times 4.0''$	110
449	1342202228	90377 Sedna	8.8	2010 Aug 06 11:30:08	1449	B	5	$3.0' \times 10 \times 4.0''$	70
449	1342202229	90377 Sedna	8.8	2010 Aug 06 11:54:45	1449	G	5	$3.0' \times 10 \times 4.0''$	110
449	1342202230	90377 Sedna	8.8	2010 Aug 06 12:19:22	1448	G	5	$3.0' \times 10 \times 4.0''$	70
452	1342202277	229762 (2007 UK_{126})	13.5	2010 Aug 08 17:52:17	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202278	229762 (2007 UK_{126})	13.6	2010 Aug 08 18:02:48	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202279	229762 (2007 UK_{126})	13.5	2010 Aug 08 18:13:19	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202280	229762 (2007 UK_{126})	13.5	2010 Aug 08 18:23:50	603	G	2	$3.0' \times 10 \times 4.0''$	70
452	1342202281	145451 (2005 RM_{43})	14.2	2010 Aug 08 18:36:31	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202282	145451 (2005 RM_{43})	14.2	2010 Aug 08 18:47:02	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202283	145451 (2005 RM_{43})	14.2	2010 Aug 08 18:57:33	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202284	145451 (2005 RM_{43})	14.2	2010 Aug 08 19:08:04	603	G	2	$3.0' \times 10 \times 4.0''$	70
452	1342202285	19521 Chaos	27.9	2010 Aug 08 19:22:44	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202286	19521 Chaos	27.9	2010 Aug 08 19:33:15	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202287	19521 Chaos	27.8	2010 Aug 08 19:43:46	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202288	19521 Chaos	27.9	2010 Aug 08 19:54:17	603	G	2	$3.0' \times 10 \times 4.0''$	70
452	1342202289	15875 (1996 TP_{66})	19.2	2010 Aug 08 20:09:15	885	B	3	$3.0' \times 10 \times 4.0''$	110
452	1342202290	15875 (1996 TP_{66})	19.1	2010 Aug 08 20:24:28	885	B	3	$3.0' \times 10 \times 4.0''$	70
452	1342202291	15875 (1996 TP_{66})	19.2	2010 Aug 08 20:39:41	885	G	3	$3.0' \times 10 \times 4.0''$	110
452	1342202292	15875 (1996 TP_{66})	19.1	2010 Aug 08 20:54:54	885	G	3	$3.0' \times 10 \times 4.0''$	70
452	1342202306	90377 Sedna	6.1	2010 Aug 09 08:21:51	1448	B	5	$3.0' \times 10 \times 4.0''$	110
452	1342202307	90377 Sedna	6.1	2010 Aug 09 08:46:28	1449	B	5	$3.0' \times 10 \times 4.0''$	70
452	1342202308	90377 Sedna	6.1	2010 Aug 09 09:11:05	1448	G	5	$3.0' \times 10 \times 4.0''$	110
452	1342202309	90377 Sedna	6.0	2010 Aug 09 09:35:42	1449	G	5	$3.0' \times 10 \times 4.0''$	70
452	1342202310	15875 (1996 TP_{66})	18.6	2010 Aug 09 09:59:32	885	B	3	$3.0' \times 10 \times 4.0''$	110
452	1342202311	15875 (1996 TP_{66})	18.6	2010 Aug 09 10:14:45	885	B	3	$3.0' \times 10 \times 4.0''$	70
452	1342202312	15875 (1996 TP_{66})	18.6	2010 Aug 09 10:29:58	885	G	3	$3.0' \times 10 \times 4.0''$	110
452	1342202313	15875 (1996 TP_{66})	18.6	2010 Aug 09 10:45:11	885	G	3	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
452	1342202316	19521 Chaos	27.2	2010 Aug 09 11:17:30	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202317	19521 Chaos	27.2	2010 Aug 09 11:28:01	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202318	19521 Chaos	27.2	2010 Aug 09 11:38:32	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202319	19521 Chaos	27.2	2010 Aug 09 11:49:03	603	G	2	$3.0' \times 10 \times 4.0''$	70
452	1342202320	145451 (2005 RM_{43})	13.5	2010 Aug 09 12:03:42	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202321	145451 (2005 RM_{43})	13.6	2010 Aug 09 12:14:13	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202322	145451 (2005 RM_{43})	13.5	2010 Aug 09 12:24:44	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202323	145451 (2005 RM_{43})	13.5	2010 Aug 09 12:35:15	603	G	2	$3.0' \times 10 \times 4.0''$	70
452	1342202324	229762 (2007 UK_{126})	12.9	2010 Aug 09 12:47:55	603	B	2	$3.0' \times 10 \times 4.0''$	70
452	1342202325	229762 (2007 UK_{126})	12.8	2010 Aug 09 12:58:26	603	B	2	$3.0' \times 10 \times 4.0''$	110
452	1342202326	229762 (2007 UK_{126})	12.8	2010 Aug 09 13:08:57	603	G	2	$3.0' \times 10 \times 4.0''$	110
452	1342202327	229762 (2007 UK_{126})	12.8	2010 Aug 09 13:19:28	603	G	2	$3.0' \times 10 \times 4.0''$	70
453	1342202341	55576 Amycus	-14.7	2010 Aug 09 17:03:28	885	B	3	$3.0' \times 10 \times 4.0''$	110
453	1342202342	55576 Amycus	-14.7	2010 Aug 09 17:18:41	885	B	3	$3.0' \times 10 \times 4.0''$	70
453	1342202343	55576 Amycus	-14.6	2010 Aug 09 17:33:54	885	G	3	$3.0' \times 10 \times 4.0''$	110
453	1342202344	55576 Amycus	-14.7	2010 Aug 09 17:49:07	885	G	3	$3.0' \times 10 \times 4.0''$	70
453	1342202345	120061 (2003 CO_1)	-8.6	2010 Aug 09 18:05:45	603	B	2	$3.0' \times 10 \times 4.0''$	110
453	1342202346	120061 (2003 CO_1)	-8.6	2010 Aug 09 18:16:16	603	B	2	$3.0' \times 10 \times 4.0''$	70
453	1342202347	120061 (2003 CO_1)	-8.6	2010 Aug 09 18:26:47	603	G	2	$3.0' \times 10 \times 4.0''$	110
453	1342202348	120061 (2003 CO_1)	-8.6	2010 Aug 09 18:37:18	603	G	2	$3.0' \times 10 \times 4.0''$	70
453	1342202361	120061 (2003 CO_1)	-8.1	2010 Aug 10 07:05:53	846	B	2	$3.0' \times 10 \times 4.0''$	110
453	1342202362	120061 (2003 CO_1)	-8.1	2010 Aug 10 07:19:06	603	B	2	$3.0' \times 10 \times 4.0''$	70
453	1342202363	120061 (2003 CO_1)	-8.1	2010 Aug 10 07:29:37	603	G	2	$3.0' \times 10 \times 4.0''$	110
453	1342202364	120061 (2003 CO_1)	-8.0	2010 Aug 10 07:40:08	603	G	2	$3.0' \times 10 \times 4.0''$	70
453	1342202367	55576 Amycus	-14.1	2010 Aug 10 08:13:57	885	B	3	$3.0' \times 10 \times 4.0''$	110
453	1342202368	55576 Amycus	-14.1	2010 Aug 10 08:29:10	885	B	3	$3.0' \times 10 \times 4.0''$	70
453	1342202369	55576 Amycus	-14.0	2010 Aug 10 08:44:23	885	G	3	$3.0' \times 10 \times 4.0''$	110
453	1342202370	55576 Amycus	-14.1	2010 Aug 10 08:59:36	885	G	3	$3.0' \times 10 \times 4.0''$	70
453	1342202371	84922 (2003 VS_2)	20.6	2010 Aug 10 13:28:56	25415	B	100	$3.0' \times 10 \times 4.0''$	110
453	1342202372	10199 Chariklo	-4.1	2010 Aug 10 17:51:55	321	B	1	$3.0' \times 10 \times 4.0''$	110
453	1342202373	10199 Chariklo	-4.1	2010 Aug 10 17:57:44	321	B	1	$3.0' \times 10 \times 4.0''$	70
453	1342202374	10199 Chariklo	-4.1	2010 Aug 10 18:03:33	321	G	1	$3.0' \times 10 \times 4.0''$	110
453	1342202375	10199 Chariklo	-4.1	2010 Aug 10 18:09:22	289	G	1	$3.0' \times 10 \times 4.0''$	70
454	1342202570	10199 Chariklo	-3.8	2010 Aug 11 02:15:11	321	B	1	$3.0' \times 10 \times 4.0''$	110
454	1342202571	10199 Chariklo	-3.8	2010 Aug 11 02:21:00	321	B	1	$3.0' \times 10 \times 4.0''$	70
454	1342202572	10199 Chariklo	-3.8	2010 Aug 11 02:26:49	321	G	1	$3.0' \times 10 \times 4.0''$	110
454	1342202573	10199 Chariklo	-3.8	2010 Aug 11 02:32:38	321	G	1	$3.0' \times 10 \times 4.0''$	70
454	1342202574	84922 (2003 VS_2)	20.1	2010 Aug 11 03:05:49	603	B	2	$3.0' \times 10 \times 4.0''$	110
454	1342202575	84922 (2003 VS_2)	20.1	2010 Aug 11 03:16:20	603	B	2	$3.0' \times 10 \times 4.0''$	70
454	1342202576	84922 (2003 VS_2)	20.1	2010 Aug 11 03:26:51	603	G	2	$3.0' \times 10 \times 4.0''$	110
454	1342202577	84922 (2003 VS_2)	20.1	2010 Aug 11 03:37:22	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202865	52872 Okyrhoe	19.6	2010 Aug 11 17:31:47	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202866	52872 Okyrhoe	19.6	2010 Aug 11 17:42:18	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202867	52872 Okyrhoe	19.6	2010 Aug 11 17:52:49	603	G	2	$3.0' \times 10 \times 4.0''$	110
455	1342202868	52872 Okyrhoe	19.6	2010 Aug 11 18:03:20	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202869	90568 (2004 GV_9)	12.0	2010 Aug 11 18:18:12	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202870	90568 (2004 GV_9)	12.0	2010 Aug 11 18:28:43	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202871	90568 (2004 GV_9)	12.0	2010 Aug 11 18:39:14	603	G	2	$3.0' \times 10 \times 4.0''$	110
455	1342202872	90568 (2004 GV_9)	12.0	2010 Aug 11 18:49:45	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202873	38628 Huya	6.6	2010 Aug 11 19:04:45	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202874	38628 Huya	6.6	2010 Aug 11 19:15:16	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202875	38628 Huya	6.6	2010 Aug 11 19:25:47	603	G	2	$3.0' \times 10 \times 4.0''$	110
455	1342202876	38628 Huya	6.6	2010 Aug 11 19:36:18	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202877	65489 Ceto	12.6	2010 Aug 11 19:51:02	885	B	3	$3.0' \times 10 \times 4.0''$	110
455	1342202878	65489 Ceto	12.6	2010 Aug 11 20:06:15	885	B	3	$3.0' \times 10 \times 4.0''$	70
455	1342202879	65489 Ceto	12.6	2010 Aug 11 20:21:28	885	G	3	$3.0' \times 10 \times 4.0''$	110
455	1342202880	65489 Ceto	12.6	2010 Aug 11 20:36:41	885	G	3	$3.0' \times 10 \times 4.0''$	70
455	1342202881	55637 (2002 UX_{25})	-13.7	2010 Aug 11 21:13:53	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202882	55637 (2002 UX_{25})	-13.7	2010 Aug 11 21:24:24	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202883	55637 (2002 UX_{25})	-13.7	2010 Aug 11 21:34:55	603	G	2	$3.0' \times 10 \times 4.0''$	110
455	1342202884	55637 (2002 UX_{25})	-13.7	2010 Aug 11 21:45:26	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202885	120348 (2004 TY_{364})	-16.6	2010 Aug 11 22:02:11	885	B	3	$3.0' \times 10 \times 4.0''$	110
455	1342202886	120348 (2004 TY_{364})	-16.7	2010 Aug 11 22:17:24	885	B	3	$3.0' \times 10 \times 4.0''$	70
455	1342202887	120348 (2004 TY_{364})	-16.6	2010 Aug 11 22:32:37	885	G	3	$3.0' \times 10 \times 4.0''$	110
455	1342202888	120348 (2004 TY_{364})	-16.7	2010 Aug 11 22:47:50	885	G	3	$3.0' \times 10 \times 4.0''$	70
455	1342202893	52872 Okyrhoe	19.8	2010 Aug 12 00:05:52	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202894	52872 Okyrhoe	19.8	2010 Aug 12 00:16:23	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202895	52872 Okyrhoe	19.8	2010 Aug 12 00:26:54	603	G	2	$3.0' \times 10 \times 4.0''$	110
455	1342202896	52872 Okyrhoe	19.8	2010 Aug 12 00:37:25	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202901	55638 (2002 VE_{95})	22.2	2010 Aug 12 07:44:40	885	B	3	$3.0' \times 10 \times 4.0''$	110
455	1342202902	55638 (2002 VE_{95})	22.1	2010 Aug 12 07:59:53	885	B	3	$3.0' \times 10 \times 4.0''$	70
455	1342202903	55638 (2002 VE_{95})	22.2	2010 Aug 12 08:15:06	885	G	3	$3.0' \times 10 \times 4.0''$	110
455	1342202904	55638 (2002 VE_{95})	22.1	2010 Aug 12 08:30:19	885	G	3	$3.0' \times 10 \times 4.0''$	70
455	1342202906	47932 (2000 GN_{171})	8.9	2010 Aug 12 09:15:36	1167	B	4	$3.0' \times 10 \times 4.0''$	110
455	1342202907	47932 (2000 GN_{171})	9.0	2010 Aug 12 09:35:31	1167	B	4	$3.0' \times 10 \times 4.0''$	70
455	1342202908	47932 (2000 GN_{171})	9.0	2010 Aug 12 09:55:26	1167	G	4	$3.0' \times 10 \times 4.0''$	110
455	1342202909	47932 (2000 GN_{171})	9.0	2010 Aug 12 10:15:21	1167	G	4	$3.0' \times 10 \times 4.0''$	70
455	1342202910	65489 Ceto	13.2	2010 Aug 12 10:36:37	885	B	3	$3.0' \times 10 \times 4.0''$	110
455	1342202911	65489 Ceto	13.2	2010 Aug 12 10:51:50	885	B	3	$3.0' \times 10 \times 4.0''$	70
455	1342202912	65489 Ceto	13.2	2010 Aug 12 11:07:03	885	G	3	$3.0' \times 10 \times 4.0''$	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
455	1342202913	65489 Ceto	13.2	2010 Aug 12 11:22:16	885	G	3	$3.0' \times 10 \times 4.0''$	70
455	1342202914	38628 Huya	7.2	2010 Aug 12 11:37:00	603	B	2	$3.0' \times 10 \times 4.0''$	110
455	1342202915	38628 Huya	7.2	2010 Aug 12 11:47:31	603	B	2	$3.0' \times 10 \times 4.0''$	70
455	1342202916	38628 Huya	7.2	2010 Aug 12 11:58:02	603	G	2	$3.0' \times 10 \times 4.0''$	70
455	1342202917	38628 Huya	7.2	2010 Aug 12 12:08:33	603	G	2	$3.0' \times 10 \times 4.0''$	110
456	1342202921	90568 (2004 GV_9)	12.8	2010 Aug 12 15:05:39	603	B	2	$3.0' \times 10 \times 4.0''$	110
456	1342202922	90568 (2004 GV_9)	12.8	2010 Aug 12 15:16:10	603	B	2	$3.0' \times 10 \times 4.0''$	70
456	1342202923	90568 (2004 GV_9)	12.8	2010 Aug 12 15:26:41	603	G	2	$3.0' \times 10 \times 4.0''$	110
456	1342202924	90568 (2004 GV_9)	12.8	2010 Aug 12 15:37:12	603	G	2	$3.0' \times 10 \times 4.0''$	70
456	1342202937	95626 (2002 GZ_{32})	14.2	2010 Aug 12 17:01:30	603	B	2	$3.0' \times 10 \times 4.0''$	110
456	1342202938	95626 (2002 GZ_{32})	14.3	2010 Aug 12 17:12:01	603	B	2	$3.0' \times 10 \times 4.0''$	70
456	1342202939	95626 (2002 GZ_{32})	14.2	2010 Aug 12 17:22:32	603	G	2	$3.0' \times 10 \times 4.0''$	110
456	1342202940	95626 (2002 GZ_{32})	14.3	2010 Aug 12 17:33:03	603	G	2	$3.0' \times 10 \times 4.0''$	70
456	1342202945	120348 (2004 TY_{364})	-17.4	2010 Aug 12 20:34:47	885	B	3	$3.0' \times 10 \times 4.0''$	110
456	1342202946	120348 (2004 TY_{364})	-17.5	2010 Aug 12 20:50:00	885	B	3	$3.0' \times 10 \times 4.0''$	70
456	1342202947	120348 (2004 TY_{364})	-17.5	2010 Aug 12 21:05:13	885	G	3	$3.0' \times 10 \times 4.0''$	110
456	1342202948	120348 (2004 TY_{364})	-17.5	2010 Aug 12 21:20:26	885	G	3	$3.0' \times 10 \times 4.0''$	70
456	1342202953	55638 (2002 VE_{95})	21.6	2010 Aug 12 22:07:21	885	B	3	$3.0' \times 10 \times 4.0''$	110
456	1342202954	55638 (2002 VE_{95})	21.6	2010 Aug 12 22:22:34	885	B	3	$3.0' \times 10 \times 4.0''$	70
456	1342202955	55638 (2002 VE_{95})	21.6	2010 Aug 12 22:37:47	885	G	3	$3.0' \times 10 \times 4.0''$	110
456	1342202956	55638 (2002 VE_{95})	21.6	2010 Aug 12 22:53:00	885	G	3	$3.0' \times 10 \times 4.0''$	70
456	1342202967	95626 (2002 GZ_{32})	14.6	2010 Aug 13 01:32:02	603	B	2	$3.0' \times 10 \times 4.0''$	70
456	1342202968	95626 (2002 GZ_{32})	14.6	2010 Aug 13 01:42:33	603	B	2	$3.0' \times 10 \times 4.0''$	110
456	1342202969	95626 (2002 GZ_{32})	14.6	2010 Aug 13 01:53:04	603	G	2	$3.0' \times 10 \times 4.0''$	110
456	1342202970	95626 (2002 GZ_{32})	14.6	2010 Aug 13 02:03:35	603	G	2	$3.0' \times 10 \times 4.0''$	70
456	1342202971	47932 (2000 GN_{171})	9.6	2010 Aug 13 02:22:13	1167	B	4	$3.0' \times 10 \times 4.0''$	110
456	1342202972	47932 (2000 GN_{171})	9.7	2010 Aug 13 02:42:08	1167	B	4	$3.0' \times 10 \times 4.0''$	70
456	1342202973	47932 (2000 GN_{171})	9.7	2010 Aug 13 03:02:03	1167	G	4	$3.0' \times 10 \times 4.0''$	110
456	1342202974	47932 (2000 GN_{171})	9.7	2010 Aug 13 03:21:58	1167	G	4	$3.0' \times 10 \times 4.0''$	70
457	1342203035	55637 (2002 UX_{25})	-15.8	2010 Aug 14 01:42:58	603	B	2	$3.0' \times 10 \times 4.0''$	110
457	1342203036	55637 (2002 UX_{25})	-15.8	2010 Aug 14 01:53:29	603	B	2	$3.0' \times 10 \times 4.0''$	70
457	1342203037	55637 (2002 UX_{25})	-15.8	2010 Aug 14 02:04:00	603	G	2	$3.0' \times 10 \times 4.0''$	110
457	1342203038	55637 (2002 UX_{25})	-15.8	2010 Aug 14 02:14:31	603	G	2	$3.0' \times 10 \times 4.0''$	70
483	1342204140	2002 MS_4	-14.4	2010 Sep 08 20:55:10	603	B	2	$3.0' \times 10 \times 4.0''$	110
483	1342204141	2002 MS_4	-14.3	2010 Sep 08 21:05:41	603	B	2	$3.0' \times 10 \times 4.0''$	70
483	1342204142	2002 MS_4	-14.4	2010 Sep 08 21:16:12	542	G	2	$3.0' \times 10 \times 4.0''$	110
483	1342204143	2002 MS_4	-14.3	2010 Sep 08 21:26:43	603	G	2	$3.0' \times 10 \times 4.0''$	70
483	1342204144	2002 GP_{32}	13.6	2010 Sep 08 21:44:49	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204145	2002 GP_{32}	13.5	2010 Sep 08 22:00:02	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204146	2002 GP_{32}	13.6	2010 Sep 08 22:15:15	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204147	2002 GP_{32}	13.6	2010 Sep 08 22:30:28	885	G	3	$3.0' \times 10 \times 4.0''$	70
483	1342204150	2006 HJ_{123}	26.8	2010 Sep 08 23:05:42	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204151	2006 HJ_{123}	26.8	2010 Sep 08 23:20:55	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204152	2006 HJ_{123}	26.9	2010 Sep 08 23:36:08	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204153	2006 HJ_{123}	26.8	2010 Sep 08 23:51:21	885	G	3	$3.0' \times 10 \times 4.0''$	70
483	1342204196	2002 KW_{14}	14.1	2010 Sep 09 10:47:12	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204197	2002 KW_{14}	14.1	2010 Sep 09 11:02:25	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204198	2002 KW_{14}	14.1	2010 Sep 09 11:17:38	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204199	2002 KW_{14}	14.1	2010 Sep 09 11:32:51	885	G	3	$3.0' \times 10 \times 4.0''$	70
483	1342204200	2006 HJ_{123}	27.4	2010 Sep 09 11:50:51	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204201	2006 HJ_{123}	27.3	2010 Sep 09 12:06:04	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204202	2006 HJ_{123}	27.4	2010 Sep 09 12:21:17	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204203	2006 HJ_{123}	27.4	2010 Sep 09 12:36:30	885	G	3	$3.0' \times 10 \times 4.0''$	70
483	1342204204	2002 GP_{32}	14.2	2010 Sep 09 12:54:27	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204205	2002 GP_{32}	14.2	2010 Sep 09 13:09:40	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204206	2002 GP_{32}	14.2	2010 Sep 09 13:24:53	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204207	2002 GP_{32}	14.2	2010 Sep 09 13:40:06	885	G	3	$3.0' \times 10 \times 4.0''$	70
483	1342204211	127546 (2002 XU_{93})	20.9	2010 Sep 09 14:31:39	885	B	3	$3.0' \times 10 \times 4.0''$	110
483	1342204212	127546 (2002 XU_{93})	20.8	2010 Sep 09 14:46:52	885	B	3	$3.0' \times 10 \times 4.0''$	70
483	1342204213	127546 (2002 XU_{93})	20.9	2010 Sep 09 15:02:05	885	G	3	$3.0' \times 10 \times 4.0''$	110
483	1342204214	127546 (2002 XU_{93})	20.8	2010 Sep 09 15:17:18	885	G	3	$3.0' \times 10 \times 4.0''$	70
484	1342204240	127546 (2002 XU_{93})	20.7	2010 Sep 09 20:55:21	885	B	3	$3.0' \times 10 \times 4.0''$	110
484	1342204241	127546 (2002 XU_{93})	20.6	2010 Sep 09 21:10:34	885	B	3	$3.0' \times 10 \times 4.0''$	70
484	1342204242	127546 (2002 XU_{93})	20.7	2010 Sep 09 21:25:47	885	G	3	$3.0' \times 10 \times 4.0''$	110
484	1342204243	127546 (2002 XU_{93})	20.6	2010 Sep 09 21:41:00	885	G	3	$3.0' \times 10 \times 4.0''$	70
484	1342204282	2002 KW_{14}	15.0	2010 Sep 10 09:12:37	885	B	3	$3.0' \times 10 \times 4.0''$	110
484	1342204283	2002 KW_{14}	15.0	2010 Sep 10 09:27:50	885	B	3	$3.0' \times 10 \times 4.0''$	70
484	1342204284	2002 KW_{14}	15.0	2010 Sep 10 09:43:03	885	G	3	$3.0' \times 10 \times 4.0''$	110
484	1342204285	2002 KW_{14}	15.0	2010 Sep 10 09:58:16	885	G	3	$3.0' \times 10 \times 4.0''$	70
484	1342204292	2002 MS_4	-12.7	2010 Sep 10 14:46:16	603	B	2	$3.0' \times 10 \times 4.0''$	110
484	1342204293	2002 MS_4	-12.7	2010 Sep 10 14:56:47	603	B	2	$3.0' \times 10 \times 4.0''$	70
484	1342204294	2002 MS_4	-12.7	2010 Sep 10 15:07:18	603	G	2	$3.0' \times 10 \times 4.0''$	110
484	1342204295	2002 MS_4	-12.7	2010 Sep 10 15:17:49	603	G	2	$3.0' \times 10 \times 4.0''$	70
485	1342204317	119979 (2002 WC_{19})	0.1	2010 Sep 10 19:55:37	885	B	3	$3.0' \times 10 \times 4.0''$	110
485	1342204318	119979 (2002 WC_{19})	0.0	2010 Sep 10 20:10:50	885	B	3	$3.0' \times 10 \times 4.0''$	70
485	1342204319	119979 (2002 WC_{19})	0.0	2010 Sep 10 20:26:03	885	G	3	$3.0' \times 10 \times 4.0''$	110
485	1342204320	119979 (2002 WC_{19})	0.0	2010 Sep 10 20:41:16	885	G	3	$3.0' \times 10 \times 4.0''$	70
487	1342204437	119979 (2002 WC_{19})	-2.6	2010 Sep 13 13:44:05	885	B	3	$3.0' \times 10 \times 4.0''$	110
487	1342204438	119979 (2002 WC_{19})	-2.6	2010 Sep 13 13:59:18	885	B	3	$3.0' \times 10 \times 4.0''$	70
487	1342204439	119979 (2002 WC_{19})	-2.6	2010 Sep 13 14:14:31	885	G	3	$3.0' \times 10 \times 4.0''$	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
487	1342204440	119979 (2002 WC_{19})	-2.7	2010 Sep 13 14:29:44	885	G	3	$3.0' \times 10 \times 4.0''$	70
501	1342205140	20000 Varuna	19.2	2010 Sep 26 20:18:29	603	B	2	$3.0' \times 10 \times 4.0''$	110
501	1342205141	20000 Varuna	19.2	2010 Sep 26 20:29:00	603	B	2	$3.0' \times 10 \times 4.0''$	70
501	1342205142	20000 Varuna	19.2	2010 Sep 26 20:39:31	603	G	2	$3.0' \times 10 \times 4.0''$	110
501	1342205143	20000 Varuna	19.2	2010 Sep 26 20:50:02	603	G	2	$3.0' \times 10 \times 4.0''$	70
501	1342205144	119951 (2002 KX_{14})	28.0	2010 Sep 26 21:28:29	885	B	3	$3.0' \times 10 \times 4.0''$	110
501	1342205145	119951 (2002 KX_{14})	27.9	2010 Sep 26 21:43:42	885	B	3	$3.0' \times 10 \times 4.0''$	70
501	1342205146	119951 (2002 KX_{14})	28.0	2010 Sep 26 21:58:55	885	G	3	$3.0' \times 10 \times 4.0''$	110
501	1342205147	119951 (2002 KX_{14})	28.0	2010 Sep 26 22:14:08	885	G	3	$3.0' \times 10 \times 4.0''$	70
501	1342205148	5145 Pholus	21.2	2010 Sep 26 22:33:06	885	B	3	$3.0' \times 10 \times 4.0''$	110
501	1342205149	5145 Pholus	21.1	2010 Sep 26 22:48:19	885	B	3	$3.0' \times 10 \times 4.0''$	70
501	1342205150	5145 Pholus	21.2	2010 Sep 26 23:03:32	885	G	3	$3.0' \times 10 \times 4.0''$	110
501	1342205151	5145 Pholus	21.2	2010 Sep 26 23:18:45	885	G	3	$3.0' \times 10 \times 4.0''$	70
501	1342205152	208996 (2003 AZ_{84})	22.3	2010 Sep 27 03:35:03	26828	G	95	$3.0' \times 10 \times 4.0''$	110
501	1342205153	5145 Pholus	21.5	2010 Sep 27 07:50:53	885	B	3	$3.0' \times 10 \times 4.0''$	110
501	1342205154	5145 Pholus	21.5	2010 Sep 27 08:06:06	885	B	3	$3.0' \times 10 \times 4.0''$	70
501	1342205155	5145 Pholus	21.5	2010 Sep 27 08:21:19	885	G	3	$3.0' \times 10 \times 4.0''$	110
501	1342205156	5145 Pholus	21.5	2010 Sep 27 08:36:32	885	G	3	$3.0' \times 10 \times 4.0''$	70
501	1342205175	119951 (2002 KX_{14})	28.7	2010 Sep 27 15:11:29	885	B	3	$3.0' \times 10 \times 4.0''$	110
501	1342205176	119951 (2002 KX_{14})	28.7	2010 Sep 27 15:26:42	885	B	3	$3.0' \times 10 \times 4.0''$	70
501	1342205177	119951 (2002 KX_{14})	28.7	2010 Sep 27 15:41:55	885	G	3	$3.0' \times 10 \times 4.0''$	110
501	1342205178	119951 (2002 KX_{14})	28.7	2010 Sep 27 15:57:08	885	G	3	$3.0' \times 10 \times 4.0''$	70
502	1342205184	2001 XR_{254}	18.2	2010 Sep 27 18:16:42	1167	B	4	$3.0' \times 10 \times 4.0''$	110
502	1342205185	2001 XR_{254}	18.2	2010 Sep 27 18:36:37	1167	B	4	$3.0' \times 10 \times 4.0''$	70
502	1342205186	2001 XR_{254}	18.2	2010 Sep 27 18:56:32	1167	G	4	$3.0' \times 10 \times 4.0''$	110
502	1342205187	2001 XR_{254}	18.2	2010 Sep 27 19:16:27	1167	G	4	$3.0' \times 10 \times 4.0''$	70
502	1342205190	20000 Varuna	18.3	2010 Sep 27 19:39:31	603	B	2	$3.0' \times 10 \times 4.0''$	70
502	1342205191	20000 Varuna	18.3	2010 Sep 27 19:50:02	603	B	2	$3.0' \times 10 \times 4.0''$	110
502	1342205192	20000 Varuna	18.3	2010 Sep 27 20:00:33	603	G	2	$3.0' \times 10 \times 4.0''$	110
502	1342205193	20000 Varuna	18.3	2010 Sep 27 20:11:04	603	G	2	$3.0' \times 10 \times 4.0''$	70
502	1342205222	208996 (2003 AZ_{84})	21.3	2010 Sep 28 02:54:21	603	B	2	$3.0' \times 10 \times 4.0''$	110
502	1342205223	208996 (2003 AZ_{84})	21.4	2010 Sep 28 03:04:52	603	B	2	$3.0' \times 10 \times 4.0''$	70
502	1342205224	208996 (2003 AZ_{84})	21.3	2010 Sep 28 03:15:23	603	G	2	$3.0' \times 10 \times 4.0''$	110
502	1342205225	208996 (2003 AZ_{84})	21.3	2010 Sep 28 03:25:54	603	G	2	$3.0' \times 10 \times 4.0''$	70
502	1342205264	2001 XR_{254}	17.4	2010 Sep 28 15:16:53	1167	B	4	$3.0' \times 10 \times 4.0''$	110
502	1342205265	2001 XR_{254}	17.4	2010 Sep 28 15:36:48	1167	B	4	$3.0' \times 10 \times 4.0''$	70
502	1342205266	2001 XR_{254}	17.3	2010 Sep 28 15:56:43	1167	G	4	$3.0' \times 10 \times 4.0''$	110
502	1342205267	2001 XR_{254}	17.4	2010 Sep 28 16:16:38	1167	G	4	$3.0' \times 10 \times 4.0''$	70
511	1342205962	2001 KA_{77}	26.9	2010 Oct 06 20:38:15	1167	B	4	$3.0' \times 10 \times 4.0''$	110
511	1342205963	2001 KA_{77}	26.9	2010 Oct 06 20:58:10	1167	B	4	$3.0' \times 10 \times 4.0''$	70
511	1342205964	2001 KA_{77}	26.9	2010 Oct 06 21:18:05	1167	G	4	$3.0' \times 10 \times 4.0''$	110
511	1342205965	2001 KA_{77}	27.0	2010 Oct 06 21:38:00	1167	G	4	$3.0' \times 10 \times 4.0''$	70
511	1342205966	2001 KD_{77}	19.4	2010 Oct 06 21:59:54	1167	B	4	$3.0' \times 10 \times 4.0''$	110
511	1342205967	2001 KD_{77}	19.5	2010 Oct 06 22:19:49	1167	B	4	$3.0' \times 10 \times 4.0''$	70
511	1342205968	2001 KD_{77}	19.5	2010 Oct 06 22:39:44	1167	G	4	$3.0' \times 10 \times 4.0''$	110
511	1342205969	2001 KD_{77}	19.5	2010 Oct 06 22:59:39	1167	G	4	$3.0' \times 10 \times 4.0''$	70
511	1342205970	50000 Quaoar	24.1	2010 Oct 06 23:16:51	603	B	2	$3.0' \times 10 \times 4.0''$	110
511	1342205971	50000 Quaoar	24.1	2010 Oct 06 23:27:22	603	B	2	$3.0' \times 10 \times 4.0''$	70
511	1342205972	50000 Quaoar	24.1	2010 Oct 06 23:37:53	603	G	2	$3.0' \times 10 \times 4.0''$	110
511	1342205973	50000 Quaoar	24.1	2010 Oct 06 23:48:24	603	G	2	$3.0' \times 10 \times 4.0''$	70
511	1342206009	2001 KD_{77}	20.0	2010 Oct 07 12:39:37	1167	B	4	$3.0' \times 10 \times 4.0''$	110
511	1342206010	2001 KD_{77}	20.1	2010 Oct 07 12:59:32	1167	B	4	$3.0' \times 10 \times 4.0''$	70
511	1342206011	2001 KD_{77}	20.1	2010 Oct 07 13:19:27	1167	G	4	$3.0' \times 10 \times 4.0''$	110
511	1342206012	2001 KD_{77}	20.1	2010 Oct 07 13:39:22	1167	G	4	$3.0' \times 10 \times 4.0''$	70
511	1342206013	2001 KA_{77}	27.6	2010 Oct 07 14:01:17	1167	B	4	$3.0' \times 10 \times 4.0''$	110
511	1342206014	2001 KA_{77}	27.6	2010 Oct 07 14:21:12	1167	B	4	$3.0' \times 10 \times 4.0''$	70
511	1342206015	2001 KA_{77}	27.6	2010 Oct 07 14:41:07	1167	G	4	$3.0' \times 10 \times 4.0''$	110
511	1342206016	2001 KA_{77}	27.7	2010 Oct 07 15:01:02	1167	G	4	$3.0' \times 10 \times 4.0''$	70
511	1342206017	50000 Quaoar	24.7	2010 Oct 07 15:17:44	603	B	2	$3.0' \times 10 \times 4.0''$	70
511	1342206018	50000 Quaoar	24.7	2010 Oct 07 15:28:15	603	B	2	$3.0' \times 10 \times 4.0''$	110
511	1342206019	50000 Quaoar	24.7	2010 Oct 07 15:38:46	603	G	2	$3.0' \times 10 \times 4.0''$	110
511	1342206020	50000 Quaoar	24.8	2010 Oct 07 15:49:17	603	G	2	$3.0' \times 10 \times 4.0''$	70
512	1342206024	1999 CD_{158}	26.5	2010 Oct 07 17:51:03	1167	B	4	$3.0' \times 10 \times 4.0''$	110
512	1342206025	1999 CD_{158}	26.5	2010 Oct 07 18:10:58	1167	B	4	$3.0' \times 10 \times 4.0''$	70
512	1342206026	1999 CD_{158}	26.5	2010 Oct 07 18:30:53	1167	G	4	$3.0' \times 10 \times 4.0''$	110
512	1342206027	1999 CD_{158}	26.5	2010 Oct 07 18:50:48	1167	G	4	$3.0' \times 10 \times 4.0''$	70
512	1342206036	126154 (2001 YH_{140})	19.3	2010 Oct 07 19:49:34	885	B	3	$3.0' \times 10 \times 4.0''$	110
512	1342206037	126154 (2001 YH_{140})	19.3	2010 Oct 07 20:04:47	885	B	3	$3.0' \times 10 \times 4.0''$	70
512	1342206038	126154 (2001 YH_{140})	19.3	2010 Oct 07 20:20:00	885	G	3	$3.0' \times 10 \times 4.0''$	110
512	1342206039	126154 (2001 YH_{140})	19.3	2010 Oct 07 20:35:13	885	G	3	$3.0' \times 10 \times 4.0''$	70
512	1342206056	126154 (2001 YH_{140})	18.6	2010 Oct 08 14:03:13	885	B	3	$3.0' \times 10 \times 4.0''$	110
512	1342206057	126154 (2001 YH_{140})	18.5	2010 Oct 08 14:18:26	885	B	3	$3.0' \times 10 \times 4.0''$	70
512	1342206058	126154 (2001 YH_{140})	18.6	2010 Oct 08 14:33:39	885	G	3	$3.0' \times 10 \times 4.0''$	110
512	1342206059	126154 (2001 YH_{140})	18.5	2010 Oct 08 14:48:52	885	G	3	$3.0' \times 10 \times 4.0''$	70
512	1342206060	1999 CD_{158}	25.7	2010 Oct 08 15:08:24	1167	B	4	$3.0' \times 10 \times 4.0''$	110
512	1342206061	1999 CD_{158}	25.7	2010 Oct 08 15:28:19	1167	B	4	$3.0' \times 10 \times 4.0''$	70
512	1342206062	1999 CD_{158}	25.6	2010 Oct 08 15:48:14	1167	G	4	$3.0' \times 10 \times 4.0''$	110
512	1342206063	1999 CD_{158}	25.6	2010 Oct 08 16:08:09	1167	G	4	$3.0' \times 10 \times 4.0''$	70
521	1342206671	2007 OC_{10}	-18.5	2010 Oct 16 21:27:38	885	B	3	$3.0' \times 10 \times 4.0''$	110
521	1342206672	2007 OC_{10}	-18.5	2010 Oct 16 21:42:51	885	B	3	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
521	1342206673	2007 OC_{10}	-18.5	2010 Oct 16 21:58:04	885	G	3	$3.0' \times 10 \times 4.0''$	110
521	1342206674	2007 OC_{10}	-18.5	2010 Oct 16 22:13:17	885	G	3	$3.0' \times 10 \times 4.0''$	70
522	1342206698	2007 OC_{10}	-17.0	2010 Oct 18 11:24:26	885	B	3	$3.0' \times 10 \times 4.0''$	110
522	1342206699	2007 OC_{10}	-17.0	2010 Oct 18 11:39:39	885	B	3	$3.0' \times 10 \times 4.0''$	70
522	1342206700	2007 OC_{10}	-17.0	2010 Oct 18 11:54:52	885	G	3	$3.0' \times 10 \times 4.0''$	110
522	1342206701	2007 OC_{10}	-17.0	2010 Oct 18 12:10:05	885	G	3	$3.0' \times 10 \times 4.0''$	70
530	1342207157	20000 Varuna	-9.3	2010 Oct 25 20:54:41	603	B	2	$3.0' \times 10 \times 4.0''$	110
530	1342207158	20000 Varuna	-9.3	2010 Oct 25 21:05:12	603	B	2	$3.0' \times 10 \times 4.0''$	70
530	1342207159	20000 Varuna	-9.3	2010 Oct 25 21:15:43	603	G	2	$3.0' \times 10 \times 4.0''$	110
530	1342207160	20000 Varuna	-9.3	2010 Oct 25 21:26:14	603	G	2	$3.0' \times 10 \times 4.0''$	70
545	1342208462	175113 (2004 PF_{115})	-9.4	2010 Nov 09 23:32:12	885	B	3	$3.0' \times 10 \times 4.0''$	110
545	1342208463	175113 (2004 PF_{115})	-9.5	2010 Nov 09 23:47:25	885	B	3	$3.0' \times 10 \times 4.0''$	70
545	1342208464	175113 (2004 PF_{115})	-9.4	2010 Nov 10 00:02:38	885	G	3	$3.0' \times 10 \times 4.0''$	110
545	1342208465	175113 (2004 PF_{115})	-9.4	2010 Nov 10 00:17:51	885	G	3	$3.0' \times 10 \times 4.0''$	70
547	1342208841	175113 (2004 PF_{115})	-7.6	2010 Nov 11 22:16:50	1068	B	3	$3.0' \times 10 \times 4.0''$	110
547	1342208842	175113 (2004 PF_{115})	-7.6	2010 Nov 11 22:33:35	885	B	3	$3.0' \times 10 \times 4.0''$	70
547	1342208843	175113 (2004 PF_{115})	-7.5	2010 Nov 11 22:48:48	885	G	3	$3.0' \times 10 \times 4.0''$	70
547	1342208844	175113 (2004 PF_{115})	-7.5	2010 Nov 11 23:04:01	885	G	3	$3.0' \times 10 \times 4.0''$	110
539	1342208962	2005 EF_{298}	27.8	2010 Nov 03 19:28:36	1448	B	5	$3.0' \times 10 \times 4.0''$	110
539	1342208963	2005 EF_{298}	27.8	2010 Nov 03 19:53:13	1448	B	5	$3.0' \times 10 \times 4.0''$	70
539	1342208964	2005 EF_{298}	27.8	2010 Nov 03 20:17:50	1449	G	5	$3.0' \times 10 \times 4.0''$	110
539	1342208965	2005 EF_{298}	27.8	2010 Nov 03 20:42:27	1448	G	5	$3.0' \times 10 \times 4.0''$	70
539	1342208999	2005 EF_{298}	27.3	2010 Nov 04 09:29:39	1449	B	5	$3.0' \times 10 \times 4.0''$	110
539	1342209000	2005 EF_{298}	27.2	2010 Nov 04 09:54:16	1449	B	5	$3.0' \times 10 \times 4.0''$	70
539	1342209001	2005 EF_{298}	27.2	2010 Nov 04 10:18:53	1449	G	5	$3.0' \times 10 \times 4.0''$	110
539	1342209002	2005 EF_{298}	27.2	2010 Nov 04 10:43:30	1448	G	5	$3.0' \times 10 \times 4.0''$	70
553	1342209471	55565 (2002 AW_{197})	-2.2	2010 Nov 18 04:58:22	886	B	3	$3.0' \times 10 \times 4.0''$	110
553	1342209472	55565 (2002 AW_{197})	-2.2	2010 Nov 18 05:13:36	885	B	3	$3.0' \times 10 \times 4.0''$	70
553	1342209473	55565 (2002 AW_{197})	-2.2	2010 Nov 18 05:28:49	885	G	3	$3.0' \times 10 \times 4.0''$	110
553	1342209474	55565 (2002 AW_{197})	-2.2	2010 Nov 18 05:44:02	885	G	3	$3.0' \times 10 \times 4.0''$	70
553	1342209492	2001 QY_{297}	7.4	2010 Nov 18 09:26:58	1538	B	5	$3.0' \times 10 \times 4.0''$	110
553	1342209493	2001 QY_{297}	7.4	2010 Nov 18 09:52:20	1449	B	5	$3.0' \times 10 \times 4.0''$	70
553	1342209494	2001 QY_{297}	7.4	2010 Nov 18 10:16:57	1448	G	5	$3.0' \times 10 \times 4.0''$	110
553	1342209495	2001 QY_{297}	7.4	2010 Nov 18 10:41:34	1449	G	5	$3.0' \times 10 \times 4.0''$	70
555	1342209650	2001 QY_{297}	8.8	2010 Nov 19 20:10:16	1618	B	5	$3.0' \times 10 \times 4.0''$	110
555	1342209651	2001 QY_{297}	8.8	2010 Nov 19 20:36:18	1448	B	5	$3.0' \times 10 \times 4.0''$	70
555	1342209652	2001 QY_{297}	8.9	2010 Nov 19 21:00:55	1449	G	5	$3.0' \times 10 \times 4.0''$	110
555	1342209653	2001 QY_{297}	8.9	2010 Nov 19 21:25:32	1449	G	5	$3.0' \times 10 \times 4.0''$	70
555	1342209654	55565 (2002 AW_{197})	-1.8	2010 Nov 19 21:57:59	2328	B	3	$3.0' \times 10 \times 4.0''$	110
555	1342209655	55565 (2002 AW_{197})	-3.9	2010 Nov 19 22:25:14	885	B	3	$3.0' \times 10 \times 4.0''$	70
555	1342209656	55565 (2002 AW_{197})	-3.9	2010 Nov 19 22:40:27	885	G	3	$3.0' \times 10 \times 4.0''$	110
555	1342209657	55565 (2002 AW_{197})	-3.9	2010 Nov 19 22:55:40	885	G	3	$3.0' \times 10 \times 4.0''$	70
566	1342210596	42355 Typhon	22.6	2010 Nov 30 20:45:08	1385	B	3	$3.0' \times 10 \times 4.0''$	110
566	1342210597	42355 Typhon	22.6	2010 Nov 30 21:04:31	885	B	3	$3.0' \times 10 \times 4.0''$	70
566	1342210598	42355 Typhon	22.6	2010 Nov 30 21:19:44	885	G	3	$3.0' \times 10 \times 4.0''$	110
566	1342210599	42355 Typhon	22.6	2010 Nov 30 21:34:57	885	G	3	$3.0' \times 10 \times 4.0''$	70
566	1342210624	42355 Typhon	22.4	2010 Dec 01 03:23:00	1200	B	3	$3.0' \times 10 \times 4.0''$	110
566	1342210625	42355 Typhon	22.3	2010 Dec 01 03:40:51	885	B	3	$3.0' \times 10 \times 4.0''$	70
566	1342210626	42355 Typhon	22.3	2010 Dec 01 03:56:04	885	G	3	$3.0' \times 10 \times 4.0''$	70
566	1342210627	42355 Typhon	22.3	2010 Dec 01 04:11:17	885	G	3	$3.0' \times 10 \times 4.0''$	110
579	1342211112	250112 (2002 KY_{14})	-13.3	2010 Dec 13 16:11:09	1042	B	3	$3.0' \times 10 \times 4.0''$	110
579	1342211113	250112 (2002 KY_{14})	-13.3	2010 Dec 13 16:27:41	885	B	3	$3.0' \times 10 \times 4.0''$	70
579	1342211114	250112 (2002 KY_{14})	-13.3	2010 Dec 13 16:42:54	885	G	3	$3.0' \times 10 \times 4.0''$	110
579	1342211115	250112 (2002 KY_{14})	-13.3	2010 Dec 13 16:58:07	885	G	3	$3.0' \times 10 \times 4.0''$	70
579	1342211144	250112 (2002 KY_{14})	-13.1	2010 Dec 13 22:13:40	1278	B	3	$3.0' \times 10 \times 4.0''$	110
579	1342211145	250112 (2002 KY_{14})	-13.1	2010 Dec 13 22:32:10	885	B	3	$3.0' \times 10 \times 4.0''$	70
579	1342211146	250112 (2002 KY_{14})	-13.0	2010 Dec 13 22:47:23	885	G	3	$3.0' \times 10 \times 4.0''$	110
579	1342211147	250112 (2002 KY_{14})	-13.0	2010 Dec 13 23:02:36	885	G	3	$3.0' \times 10 \times 4.0''$	70
588	1342211418	2010 EK_{139}	26.6	2010 Dec 23 07:04:24	980	B	2	$3.0' \times 10 \times 4.0''$	110
588	1342211419	2010 EK_{139}	26.6	2010 Dec 23 07:18:04	603	B	2	$3.0' \times 10 \times 4.0''$	70
588	1342211420	2010 EK_{139}	26.6	2010 Dec 23 07:28:35	603	G	2	$3.0' \times 10 \times 4.0''$	110
588	1342211421	2010 EK_{139}	26.6	2010 Dec 23 07:39:06	603	G	2	$3.0' \times 10 \times 4.0''$	70
588	1342211422	82158 (2001 FP_{185})	20.3	2010 Dec 23 07:59:52	1772	B	5	$3.0' \times 10 \times 4.0''$	110
588	1342211423	82158 (2001 FP_{185})	20.3	2010 Dec 23 08:27:11	1449	B	5	$3.0' \times 10 \times 4.0''$	70
588	1342211424	82158 (2001 FP_{185})	20.3	2010 Dec 23 08:51:48	1449	G	5	$3.0' \times 10 \times 4.0''$	110
588	1342211425	82158 (2001 FP_{185})	20.3	2010 Dec 23 09:16:25	1448	G	5	$3.0' \times 10 \times 4.0''$	70
589	1342211524	2010 EK_{139}	26.1	2010 Dec 23 19:58:21	978	B	2	$3.0' \times 10 \times 4.0''$	110
589	1342211525	2010 EK_{139}	26.1	2010 Dec 23 20:12:00	603	B	2	$3.0' \times 10 \times 4.0''$	70
589	1342211526	2010 EK_{139}	26.1	2010 Dec 23 20:22:31	603	G	2	$3.0' \times 10 \times 4.0''$	110
589	1342211527	2010 EK_{139}	26.1	2010 Dec 23 20:33:02	603	G	2	$3.0' \times 10 \times 4.0''$	70
589	1342211528	82158 (2001 FP_{185})	19.8	2010 Dec 23 20:55:30	1771	B	5	$3.0' \times 10 \times 4.0''$	110
589	1342211529	82158 (2001 FP_{185})	19.8	2010 Dec 23 21:22:49	1448	B	5	$3.0' \times 10 \times 4.0''$	70
589	1342211530	82158 (2001 FP_{185})	19.8	2010 Dec 23 21:47:26	1449	G	5	$3.0' \times 10 \times 4.0''$	110
589	1342211531	82158 (2001 FP_{185})	19.7	2010 Dec 23 22:12:03	1449	G	5	$3.0' \times 10 \times 4.0''$	70
592	1342211619	2001 QX_{322}	-15.6	2010 Dec 27 06:38:27	1565	B	5	$3.0' \times 10 \times 4.0''$	110
592	1342211620	2001 QX_{322}	-15.6	2010 Dec 27 07:04:02	1449	B	5	$3.0' \times 10 \times 4.0''$	70
592	1342211621	2001 QX_{322}	-15.6	2010 Dec 27 07:28:39	1448	G	5	$3.0' \times 10 \times 4.0''$	110
592	1342211622	2001 QX_{322}	-15.6	2010 Dec 27 07:53:16	1449	G	5	$3.0' \times 10 \times 4.0''$	70
593	1342211807	2001 QX_{322}	-14.9	2010 Dec 28 01:08:00	2478	B	5	$3.0' \times 10 \times 4.0''$	110
593	1342211808	2001 QX_{322}	-14.9	2010 Dec 28 01:41:12	1449	B	5	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
593	1342211809	2001 QX_{322}	-14.8	2010 Dec 28 02:05:49	1448	G	5	$3.0' \times 10 \times 4.0''$	110
593	1342211810	2001 QX_{322}	-14.9	2010 Dec 28 02:30:26	1449	G	5	$3.0' \times 10 \times 4.0''$	70
581	1342211949	2001 QD_{298}	21.9	2010 Dec 15 15:41:05	1749	B	5	$3.0' \times 10 \times 4.0''$	110
581	1342211950	2001 QD_{298}	22.0	2010 Dec 15 16:08:13	1448	B	5	$3.0' \times 10 \times 4.0''$	70
581	1342211951	2001 QD_{298}	22.0	2010 Dec 15 16:32:50	1449	G	5	$3.0' \times 10 \times 4.0''$	110
581	1342211952	2001 QD_{298}	22.0	2010 Dec 15 16:57:27	1448	G	5	$3.0' \times 10 \times 4.0''$	70
581	1342212033	2001 QD_{298}	22.7	2010 Dec 16 10:05:48	2278	B	5	$3.0' \times 10 \times 4.0''$	110
581	1342212034	2001 QD_{298}	22.7	2010 Dec 16 10:37:20	1448	B	5	$3.0' \times 10 \times 4.0''$	70
581	1342212035	2001 QD_{298}	22.8	2010 Dec 16 11:01:57	1449	G	5	$3.0' \times 10 \times 4.0''$	110
581	1342212036	2001 QD_{298}	22.7	2010 Dec 16 11:26:34	1448	G	5	$3.0' \times 10 \times 4.0''$	70
607	1342212481	Phoebe	-3.2	2011 Jan 10 15:56:25	1774	B	2	$20.0' \times 10 \times 4.0''$	110
607	1342212482	Phoebe	-3.2	2011 Jan 10 16:25:12	1622	B	2	$20.0' \times 10 \times 4.0''$	70
607	1342212483	Phoebe	-3.1	2011 Jan 10 16:52:43	1622	G	2	$20.0' \times 10 \times 4.0''$	110
607	1342212484	Phoebe	-3.2	2011 Jan 10 17:20:14	1622	G	2	$20.0' \times 10 \times 4.0''$	70
611	1342212615	35671 (1998 SN_{165})	14.4	2011 Jan 14 13:26:18	1019	B	3	$3.0' \times 10 \times 4.0''$	110
611	1342212616	35671 (1998 SN_{165})	14.3	2011 Jan 14 13:42:38	885	B	3	$3.0' \times 10 \times 4.0''$	70
611	1342212617	35671 (1998 SN_{165})	14.4	2011 Jan 14 13:57:51	885	G	3	$3.0' \times 10 \times 4.0''$	110
611	1342212618	35671 (1998 SN_{165})	14.4	2011 Jan 14 14:13:04	885	G	3	$3.0' \times 10 \times 4.0''$	70
611	1342212619	2005 QU_{182}	14.4	2011 Jan 14 14:27:34	740	B	2	$3.0' \times 10 \times 4.0''$	110
611	1342212620	2005 QU_{182}	14.5	2011 Jan 14 14:39:14	603	B	2	$3.0' \times 10 \times 4.0''$	70
611	1342212621	2005 QU_{182}	14.4	2011 Jan 14 14:49:45	603	G	2	$3.0' \times 10 \times 4.0''$	110
611	1342212622	2005 QU_{182}	14.5	2011 Jan 14 15:00:16	603	G	2	$3.0' \times 10 \times 4.0''$	70
611	1342212648	2002 GH_{32}	22.2	2011 Jan 14 22:54:37	1757	B	5	$3.0' \times 10 \times 4.0''$	110
611	1342212649	2002 GH_{32}	22.2	2011 Jan 14 23:21:49	1448	B	5	$3.0' \times 10 \times 4.0''$	70
611	1342212650	2002 GH_{32}	22.2	2011 Jan 14 23:46:26	1449	G	5	$3.0' \times 10 \times 4.0''$	110
611	1342212651	2002 GH_{32}	22.2	2011 Jan 15 00:11:03	1449	G	5	$3.0' \times 10 \times 4.0''$	70
611	1342212652	2003 GH_{55}	20.2	2011 Jan 15 00:36:21	1471	B	5	$3.0' \times 10 \times 4.0''$	110
611	1342212653	2003 GH_{55}	20.2	2011 Jan 15 01:01:09	1448	B	5	$3.0' \times 10 \times 4.0''$	70
611	1342212654	2003 GH_{55}	20.2	2011 Jan 15 01:25:46	1449	G	5	$3.0' \times 10 \times 4.0''$	110
611	1342212655	2003 GH_{55}	20.2	2011 Jan 15 01:50:23	1449	G	5	$3.0' \times 10 \times 4.0''$	70
611	1342212680	202421 (2005 UQ_{513})	8.8	2011 Jan 15 08:45:39	1736	B	3	$3.0' \times 10 \times 4.0''$	110
611	1342212681	202421 (2005 UQ_{513})	8.7	2011 Jan 15 09:07:58	885	B	3	$3.0' \times 10 \times 4.0''$	70
611	1342212682	202421 (2005 UQ_{513})	8.8	2011 Jan 15 09:23:11	885	G	3	$3.0' \times 10 \times 4.0''$	110
611	1342212683	202421 (2005 UQ_{513})	8.8	2011 Jan 15 09:38:24	885	G	3	$3.0' \times 10 \times 4.0''$	70
612	1342212688	35671 (1998 SN_{165})	15.3	2011 Jan 15 11:00:10	1008	B	3	$3.0' \times 10 \times 4.0''$	110
612	1342212689	35671 (1998 SN_{165})	15.2	2011 Jan 15 11:16:25	885	B	3	$3.0' \times 10 \times 4.0''$	70
612	1342212690	35671 (1998 SN_{165})	15.3	2011 Jan 15 11:31:38	885	G	3	$3.0' \times 10 \times 4.0''$	110
612	1342212691	35671 (1998 SN_{165})	15.3	2011 Jan 15 11:46:51	885	G	3	$3.0' \times 10 \times 4.0''$	70
612	1342212692	2001 QS_{322}	25.1	2011 Jan 15 12:08:09	1554	B	5	$3.0' \times 10 \times 4.0''$	110
612	1342212693	2001 QS_{322}	25.1	2011 Jan 15 12:33:39	1449	B	5	$3.0' \times 10 \times 4.0''$	70
612	1342212694	2001 QS_{322}	25.1	2011 Jan 15 12:58:16	1449	G	5	$3.0' \times 10 \times 4.0''$	110
612	1342212695	2001 QS_{322}	25.1	2011 Jan 15 13:22:53	1448	G	5	$3.0' \times 10 \times 4.0''$	70
612	1342212696	2005 QU_{182}	15.4	2011 Jan 15 13:43:00	762	B	2	$3.0' \times 10 \times 4.0''$	110
612	1342212697	2005 QU_{182}	15.4	2011 Jan 15 13:54:51	603	B	2	$3.0' \times 10 \times 4.0''$	70
612	1342212698	2005 QU_{182}	15.4	2011 Jan 15 14:05:22	603	G	2	$3.0' \times 10 \times 4.0''$	110
612	1342212699	2005 QU_{182}	15.4	2011 Jan 15 14:15:53	542	G	2	$3.0' \times 10 \times 4.0''$	70
612	1342212710	2002 GH_{32}	21.3	2011 Jan 15 22:50:16	2040	B	5	$3.0' \times 10 \times 4.0''$	110
612	1342212711	2002 GH_{32}	21.2	2011 Jan 15 23:19:49	1448	B	5	$3.0' \times 10 \times 4.0''$	70
612	1342212712	2002 GH_{32}	21.2	2011 Jan 15 23:44:26	1449	G	5	$3.0' \times 10 \times 4.0''$	110
612	1342212713	2002 GH_{32}	21.2	2011 Jan 16 00:09:03	1448	G	5	$3.0' \times 10 \times 4.0''$	70
612	1342212714	2003 GH_{55}	19.2	2011 Jan 16 00:34:21	1471	B	5	$3.0' \times 10 \times 4.0''$	110
612	1342212715	2003 GH_{55}	19.2	2011 Jan 16 00:59:09	1449	B	5	$3.0' \times 10 \times 4.0''$	70
612	1342212716	2003 GH_{55}	19.2	2011 Jan 16 01:23:46	1448	G	5	$3.0' \times 10 \times 4.0''$	70
612	1342212717	2003 GH_{55}	19.2	2011 Jan 16 01:48:23	1449	G	5	$3.0' \times 10 \times 4.0''$	110
612	1342212722	202421 (2005 UQ_{513})	7.5	2011 Jan 16 07:01:26	2023	B	3	$3.0' \times 10 \times 4.0''$	110
612	1342212723	202421 (2005 UQ_{513})	9.6	2011 Jan 16 07:26:09	885	B	3	$3.0' \times 10 \times 4.0''$	70
612	1342212724	202421 (2005 UQ_{513})	9.6	2011 Jan 16 07:41:22	885	G	3	$3.0' \times 10 \times 4.0''$	70
612	1342212725	202421 (2005 UQ_{513})	9.6	2011 Jan 16 07:56:35	885	G	3	$3.0' \times 10 \times 4.0''$	110
612	1342212726	2001 QS_{322}	25.9	2011 Jan 16 08:19:14	1716	B	5	$3.0' \times 10 \times 4.0''$	110
612	1342212727	2001 QS_{322}	25.9	2011 Jan 16 08:46:05	1449	B	5	$3.0' \times 10 \times 4.0''$	70
612	1342212728	2001 QS_{322}	26.0	2011 Jan 16 09:10:42	1449	G	5	$3.0' \times 10 \times 4.0''$	70
612	1342212729	2001 QS_{322}	26.0	2011 Jan 16 09:35:19	1449	G	5	$3.0' \times 10 \times 4.0''$	110
613	1342212760	2003 UZ_{413}	-18.1	2011 Jan 16 14:23:57	752	B	2	$3.0' \times 10 \times 4.0''$	110
613	1342212761	2003 UZ_{413}	-18.0	2011 Jan 16 14:35:43	603	B	2	$3.0' \times 10 \times 4.0''$	70
613	1342212762	2003 UZ_{413}	-18.1	2011 Jan 16 14:46:14	603	G	2	$3.0' \times 10 \times 4.0''$	110
613	1342212763	2003 UZ_{413}	-18.0	2011 Jan 16 14:56:45	603	G	2	$3.0' \times 10 \times 4.0''$	70
613	1342212764	55636 (2002 TX_{300})	5.0	2011 Jan 16 15:17:55	1820	B	5	$3.0' \times 10 \times 4.0''$	110
613	1342212765	55636 (2002 TX_{300})	5.1	2011 Jan 16 15:45:38	1449	B	5	$3.0' \times 10 \times 4.0''$	70
613	1342212766	55636 (2002 TX_{300})	5.1	2011 Jan 16 16:10:15	1448	G	5	$3.0' \times 10 \times 4.0''$	110
613	1342212767	55636 (2002 TX_{300})	5.1	2011 Jan 16 16:34:52	1449	G	5	$3.0' \times 10 \times 4.0''$	70
613	1342212770	120132 (2003 FY_{128})	-8.6	2011 Jan 16 18:33:15	1273	B	3	$3.0' \times 10 \times 4.0''$	110
613	1342212771	120132 (2003 FY_{128})	-8.6	2011 Jan 16 18:51:42	885	B	3	$3.0' \times 10 \times 4.0''$	70
613	1342212772	120132 (2003 FY_{128})	-8.6	2011 Jan 16 19:06:55	885	G	3	$3.0' \times 10 \times 4.0''$	110
613	1342212773	120132 (2003 FY_{128})	-8.7	2011 Jan 16 19:22:08	885	G	3	$3.0' \times 10 \times 4.0''$	70
614	1342212802	55636 (2002 TX_{300})	6.0	2011 Jan 17 14:54:55	1540	B	5	$3.0' \times 10 \times 4.0''$	110
614	1342212803	55636 (2002 TX_{300})	6.0	2011 Jan 17 15:20:18	1449	B	5	$3.0' \times 10 \times 4.0''$	70
614	1342212804	55636 (2002 TX_{300})	6.0	2011 Jan 17 15:44:55	1449	G	5	$3.0' \times 10 \times 4.0''$	110
614	1342212805	55636 (2002 TX_{300})	6.0	2011 Jan 17 16:09:32	1449	G	5	$3.0' \times 10 \times 4.0''$	70
614	1342212814	40314 (1999 KR_{16})	18.8	2011 Jan 17 19:54:56	1738	B	5	$3.0' \times 10 \times 4.0''$	110
614	1342212815	40314 (1999 KR_{16})	18.8	2011 Jan 17 20:21:58	1449	B	5	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
614	1342212816	40314 (1999 KR_{16})	18.8	2011 Jan 17 20:46:35	1448	G	5	$3.0' \times 10 \times 4.0''$	110
614	1342212817	40314 (1999 KR_{16})	18.7	2011 Jan 17 21:11:12	1449	G	5	$3.0' \times 10 \times 4.0''$	70
614	1342212818	26181 (1996 GQ_{21})	22.7	2011 Jan 17 21:36:43	1497	B	5	$3.0' \times 10 \times 4.0''$	110
614	1342212819	26181 (1996 GQ_{21})	22.7	2011 Jan 17 22:01:45	1449	B	5	$3.0' \times 10 \times 4.0''$	70
614	1342212820	26181 (1996 GQ_{21})	22.7	2011 Jan 17 22:26:22	1448	G	5	$3.0' \times 10 \times 4.0''$	110
614	1342212821	26181 (1996 GQ_{21})	22.6	2011 Jan 17 22:50:59	1449	G	5	$3.0' \times 10 \times 4.0''$	70
614	1342212848	2005 RO_{43}	-19.0	2011 Jan 18 06:27:40	1215	B	3	$3.0' \times 10 \times 4.0''$	110
614	1342212849	2005 RO_{43}	-19.0	2011 Jan 18 06:45:38	885	B	3	$3.0' \times 10 \times 4.0''$	70
614	1342212850	2005 RO_{43}	-19.0	2011 Jan 18 07:00:51	885	G	3	$3.0' \times 10 \times 4.0''$	110
614	1342212851	2005 RO_{43}	-19.0	2011 Jan 18 07:16:04	885	G	3	$3.0' \times 10 \times 4.0''$	70
614	1342212858	2003 UZ_{413}	-16.3	2011 Jan 18 08:00:56	603	B	2	$3.0' \times 10 \times 4.0''$	110
614	1342212859	2003 UZ_{413}	-16.3	2011 Jan 18 08:11:27	603	B	2	$3.0' \times 10 \times 4.0''$	70
614	1342212860	2003 UZ_{413}	-16.3	2011 Jan 18 08:21:58	603	G	2	$3.0' \times 10 \times 4.0''$	110
614	1342212861	2003 UZ_{413}	-16.3	2011 Jan 18 08:32:29	603	G	2	$3.0' \times 10 \times 4.0''$	70
616	1342213019	2003 QW_{90}	22.0	2011 Jan 19 11:00:54	1505	B	5	$3.0' \times 10 \times 4.0''$	110
616	1342213020	2003 QW_{90}	22.1	2011 Jan 19 11:25:59	1449	B	5	$3.0' \times 10 \times 4.0''$	70
616	1342213021	2003 QW_{90}	22.1	2011 Jan 19 11:50:36	1448	G	5	$3.0' \times 10 \times 4.0''$	70
616	1342213022	2003 QW_{90}	22.1	2011 Jan 19 12:15:13	1449	G	5	$3.0' \times 10 \times 4.0''$	110
615	1342213063	2003 QW_{90}	21.1	2011 Jan 18 12:25:44	1532	B	5	$3.0' \times 10 \times 4.0''$	110
615	1342213064	2003 QW_{90}	21.1	2011 Jan 18 12:51:03	1449	B	5	$3.0' \times 10 \times 4.0''$	70
615	1342213065	2003 QW_{90}	21.2	2011 Jan 18 13:15:40	1449	G	5	$3.0' \times 10 \times 4.0''$	110
615	1342213066	2003 QW_{90}	21.1	2011 Jan 18 13:40:17	1448	G	5	$3.0' \times 10 \times 4.0''$	70
615	1342213067	73480 (2002 PN_{34})	23.4	2011 Jan 18 13:59:50	781	B	2	$3.0' \times 10 \times 4.0''$	110
615	1342213068	73480 (2002 PN_{34})	23.4	2011 Jan 18 14:11:50	603	B	2	$3.0' \times 10 \times 4.0''$	70
615	1342213069	73480 (2002 PN_{34})	23.4	2011 Jan 18 14:22:21	603	G	2	$3.0' \times 10 \times 4.0''$	110
615	1342213070	73480 (2002 PN_{34})	23.4	2011 Jan 18 14:32:52	603	G	2	$3.0' \times 10 \times 4.0''$	70
615	1342213071	40314 (1999 KR_{16})	18.0	2011 Jan 18 15:01:59	2774	B	5	$3.0' \times 10 \times 4.0''$	110
615	1342213072	40314 (1999 KR_{16})	18.0	2011 Jan 18 15:37:39	1448	B	5	$3.0' \times 10 \times 4.0''$	70
615	1342213073	40314 (1999 KR_{16})	18.0	2011 Jan 18 16:02:16	1449	G	5	$3.0' \times 10 \times 4.0''$	110
615	1342213074	40314 (1999 KR_{16})	17.9	2011 Jan 18 16:26:53	1448	G	5	$3.0' \times 10 \times 4.0''$	70
615	1342213075	26181 (1996 GQ_{21})	21.9	2011 Jan 18 16:52:24	1498	B	5	$3.0' \times 10 \times 4.0''$	110
615	1342213076	26181 (1996 GQ_{21})	21.9	2011 Jan 18 17:17:26	1449	B	5	$3.0' \times 10 \times 4.0''$	70
615	1342213077	26181 (1996 GQ_{21})	21.9	2011 Jan 18 17:42:03	1449	G	5	$3.0' \times 10 \times 4.0''$	110
615	1342213078	26181 (1996 GQ_{21})	21.8	2011 Jan 18 18:06:40	1448	G	5	$3.0' \times 10 \times 4.0''$	70
615	1342213089	73480 (2002 PN_{34})	16.0	2011 Jan 18 21:04:16	1715	B	2	$3.0' \times 10 \times 4.0''$	110
615	1342213090	73480 (2002 PN_{34})	23.7	2011 Jan 18 21:24:04	603	B	2	$3.0' \times 10 \times 4.0''$	70
615	1342213091	73480 (2002 PN_{34})	23.7	2011 Jan 18 21:34:35	603	G	2	$3.0' \times 10 \times 4.0''$	110
615	1342213092	73480 (2002 PN_{34})	23.7	2011 Jan 18 21:45:06	603	G	2	$3.0' \times 10 \times 4.0''$	70
615	1342213107	120132 (2003 FY_{128})	-11.1	2011 Jan 19 04:38:59	923	B	3	$3.0' \times 10 \times 4.0''$	110
615	1342213108	120132 (2003 FY_{128})	-11.1	2011 Jan 19 04:54:31	885	B	3	$3.0' \times 10 \times 4.0''$	70
615	1342213109	120132 (2003 FY_{128})	-11.1	2011 Jan 19 05:09:44	885	G	3	$3.0' \times 10 \times 4.0''$	110
615	1342213110	120132 (2003 FY_{128})	-11.1	2011 Jan 19 05:24:57	885	G	3	$3.0' \times 10 \times 4.0''$	70
615	1342213115	2005 RO_{43}	-18.0	2011 Jan 19 06:44:55	1917	B	3	$3.0' \times 10 \times 4.0''$	110
615	1342213116	2005 RO_{43}	-18.1	2011 Jan 19 07:08:45	885	B	3	$3.0' \times 10 \times 4.0''$	70
615	1342213117	2005 RO_{43}	-18.1	2011 Jan 19 07:23:58	885	G	3	$3.0' \times 10 \times 4.0''$	70
615	1342213118	2005 RO_{43}	-18.0	2011 Jan 19 07:39:11	885	G	3	$3.0' \times 10 \times 4.0''$	110
620	1342213211	139775 (2001 QG_{298})	23.2	2011 Jan 24 02:57:51	2373	B	5	$3.0' \times 10 \times 4.0''$	110
620	1342213212	139775 (2001 QG_{298})	23.2	2011 Jan 24 03:30:11	1448	B	5	$3.0' \times 10 \times 4.0''$	70
620	1342213213	139775 (2001 QG_{298})	23.3	2011 Jan 24 03:54:48	1449	G	5	$3.0' \times 10 \times 4.0''$	110
620	1342213214	139775 (2001 QG_{298})	23.3	2011 Jan 24 04:19:25	1448	G	5	$3.0' \times 10 \times 4.0''$	70
620	1342213219	2007 RW_{10}	23.8	2011 Jan 24 05:18:16	1016	B	3	$3.0' \times 10 \times 4.0''$	110
620	1342213220	2007 RW_{10}	23.8	2011 Jan 24 05:34:35	885	B	3	$3.0' \times 10 \times 4.0''$	70
620	1342213221	2007 RW_{10}	23.9	2011 Jan 24 05:49:48	885	G	3	$3.0' \times 10 \times 4.0''$	110
620	1342213222	2007 RW_{10}	23.8	2011 Jan 24 06:05:01	885	G	3	$3.0' \times 10 \times 4.0''$	70
621	1342213252	54598 Bienor	21.3	2011 Jan 24 12:55:12	618	B	2	$3.0' \times 10 \times 4.0''$	110
621	1342213253	54598 Bienor	21.3	2011 Jan 24 13:05:51	603	B	2	$3.0' \times 10 \times 4.0''$	70
621	1342213254	54598 Bienor	21.3	2011 Jan 24 13:16:22	603	G	2	$3.0' \times 10 \times 4.0''$	110
621	1342213255	54598 Bienor	21.3	2011 Jan 24 13:26:53	603	G	2	$3.0' \times 10 \times 4.0''$	70
621	1342213266	139775 (2001 QG_{298})	23.9	2011 Jan 24 19:03:25	1794	B	5	$3.0' \times 10 \times 4.0''$	110
621	1342213267	139775 (2001 QG_{298})	23.9	2011 Jan 24 19:30:55	1449	B	5	$3.0' \times 10 \times 4.0''$	70
621	1342213268	139775 (2001 QG_{298})	24.0	2011 Jan 24 19:55:32	1448	G	5	$3.0' \times 10 \times 4.0''$	110
621	1342213269	139775 (2001 QG_{298})	23.9	2011 Jan 24 20:20:09	1449	G	5	$3.0' \times 10 \times 4.0''$	70
621	1342213270	2007 RW_{10}	24.4	2011 Jan 24 20:40:34	885	B	3	$3.0' \times 10 \times 4.0''$	70
621	1342213271	2007 RW_{10}	24.5	2011 Jan 24 20:55:47	885	B	3	$3.0' \times 10 \times 4.0''$	110
621	1342213272	2007 RW_{10}	24.5	2011 Jan 24 21:11:00	885	G	3	$3.0' \times 10 \times 4.0''$	70
621	1342213273	2007 RW_{10}	24.5	2011 Jan 24 21:26:13	885	G	3	$3.0' \times 10 \times 4.0''$	110
621	1342213274	54598 Bienor	21.7	2011 Jan 24 21:41:00	773	B	2	$3.0' \times 10 \times 4.0''$	110
621	1342213275	54598 Bienor	21.7	2011 Jan 24 21:52:56	603	B	2	$3.0' \times 10 \times 4.0''$	70
621	1342213276	54598 Bienor	21.7	2011 Jan 24 22:03:27	603	G	2	$3.0' \times 10 \times 4.0''$	110
621	1342213277	54598 Bienor	21.7	2011 Jan 24 22:13:58	603	G	2	$3.0' \times 10 \times 4.0''$	70
627	1342213502	2005 RS_{43}	22.3	2011 Jan 30 17:20:13	1193	B	4	$3.0' \times 10 \times 4.0''$	110
627	1342213503	2005 RS_{43}	22.3	2011 Jan 30 17:40:21	1167	B	4	$3.0' \times 10 \times 4.0''$	70
627	1342213504	2005 RS_{43}	22.3	2011 Jan 30 18:00:16	1167	G	4	$3.0' \times 10 \times 4.0''$	110
627	1342213505	2005 RS_{43}	22.4	2011 Jan 30 18:20:11	1167	G	4	$3.0' \times 10 \times 4.0''$	70
627	1342213518	15820 (1994 TB)	9.5	2011 Jan 30 21:45:14	1557	B	5	$3.0' \times 10 \times 4.0''$	110
627	1342213519	15820 (1994 TB)	9.5	2011 Jan 30 22:10:46	1448	B	5	$3.0' \times 10 \times 4.0''$	70
627	1342213520	15820 (1994 TB)	9.6	2011 Jan 30 22:35:23	1449	G	5	$3.0' \times 10 \times 4.0''$	110
627	1342213521	15820 (1994 TB)	9.5	2011 Jan 30 23:00:00	1449	G	5	$3.0' \times 10 \times 4.0''$	70
628	1342213558	2005 RS_{43}	23.1	2011 Jan 31 11:33:29	1260	B	4	$3.0' \times 10 \times 4.0''$	110
628	1342213559	2005 RS_{43}	23.1	2011 Jan 31 11:54:11	1167	B	4	$3.0' \times 10 \times 4.0''$	70

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
628	1342213560	2005 RS_{43}	23.1	2011 Jan 31 12:14:06	1167	G	4	$3.0' \times 10 \times 4.0''$	110
628	1342213561	2005 RS_{43}	23.1	2011 Jan 31 12:34:01	1167	G	4	$3.0' \times 10 \times 4.0''$	70
628	1342213569	15820 (1994 TB)	10.2	2011 Jan 31 13:41:14	1484	B	5	$3.0' \times 10 \times 4.0''$	110
628	1342213570	15820 (1994 TB)	10.2	2011 Jan 31 14:06:09	1449	B	5	$3.0' \times 10 \times 4.0''$	70
628	1342213571	15820 (1994 TB)	10.2	2011 Jan 31 14:30:46	1449	G	5	$3.0' \times 10 \times 4.0''$	70
628	1342213572	15820 (1994 TB)	10.2	2011 Jan 31 14:55:23	1448	G	5	$3.0' \times 10 \times 4.0''$	110
635	1342213822	174567 (2003 MW_{12})	22.9	2011 Feb 07 21:16:47	1153	B	3	$3.0' \times 10 \times 4.0''$	110
635	1342213823	174567 (2003 MW_{12})	22.9	2011 Feb 07 21:34:14	885	B	3	$3.0' \times 10 \times 4.0''$	70
635	1342213824	174567 (2003 MW_{12})	22.9	2011 Feb 07 21:49:27	885	G	3	$3.0' \times 10 \times 4.0''$	110
635	1342213825	174567 (2003 MW_{12})	22.8	2011 Feb 07 22:04:40	885	G	3	$3.0' \times 10 \times 4.0''$	70
636	1342213932	174567 (2003 MW_{12})	21.9	2011 Feb 08 15:23:27	2258	B	3	$3.0' \times 10 \times 4.0''$	110
636	1342213933	174567 (2003 MW_{12})	22.1	2011 Feb 08 15:50:07	885	B	3	$3.0' \times 10 \times 4.0''$	70
636	1342213934	174567 (2003 MW_{12})	22.2	2011 Feb 08 16:05:20	885	G	3	$3.0' \times 10 \times 4.0''$	110
636	1342213935	174567 (2003 MW_{12})	22.1	2011 Feb 08 16:20:33	885	G	3	$3.0' \times 10 \times 4.0''$	70
638	1342214043	48639 (1995 TL_8)	9.1	2011 Feb 10 13:27:21	1515	B	4	$3.0' \times 10 \times 4.0''$	110
638	1342214044	48639 (1995 TL_8)	9.1	2011 Feb 10 13:50:11	1167	B	4	$3.0' \times 10 \times 4.0''$	70
638	1342214045	48639 (1995 TL_8)	9.1	2011 Feb 10 14:10:06	1167	G	4	$3.0' \times 10 \times 4.0''$	110
638	1342214046	48639 (1995 TL_8)	9.1	2011 Feb 10 14:30:01	1167	G	4	$3.0' \times 10 \times 4.0''$	70
638	1342214049	84522 (2002 TC_{302})	16.0	2011 Feb 10 15:39:07	731	B	2	$3.0' \times 10 \times 4.0''$	110
638	1342214050	84522 (2002 TC_{302})	16.0	2011 Feb 10 15:50:42	603	B	2	$3.0' \times 10 \times 4.0''$	70
638	1342214051	84522 (2002 TC_{302})	16.0	2011 Feb 10 16:01:13	603	G	2	$3.0' \times 10 \times 4.0''$	110
638	1342214052	84522 (2002 TC_{302})	16.0	2011 Feb 10 16:11:44	603	G	2	$3.0' \times 10 \times 4.0''$	70
639	1342214159	84522 (2002 TC_{302})	17.4	2011 Feb 12 00:55:01	607	B	2	$3.0' \times 10 \times 4.0''$	110
639	1342214160	84522 (2002 TC_{302})	17.4	2011 Feb 12 01:05:34	603	B	2	$3.0' \times 10 \times 4.0''$	70
639	1342214161	84522 (2002 TC_{302})	17.4	2011 Feb 12 01:16:05	603	G	2	$3.0' \times 10 \times 4.0''$	110
639	1342214162	84522 (2002 TC_{302})	17.4	2011 Feb 12 01:26:36	603	G	2	$3.0' \times 10 \times 4.0''$	70
639	1342214165	48639 (1995 TL_8)	10.6	2011 Feb 12 02:05:21	1467	B	4	$3.0' \times 10 \times 4.0''$	110
639	1342214166	48639 (1995 TL_8)	10.6	2011 Feb 12 02:27:46	1167	B	4	$3.0' \times 10 \times 4.0''$	70
639	1342214167	48639 (1995 TL_8)	10.6	2011 Feb 12 02:47:41	1167	G	4	$3.0' \times 10 \times 4.0''$	110
639	1342214168	48639 (1995 TL_8)	10.7	2011 Feb 12 03:07:36	1167	G	4	$3.0' \times 10 \times 4.0''$	70
662	1342215386	10370 Hylonome	1.4	2011 Mar 06 23:51:15	1382	B	4	$3.0' \times 10 \times 4.0''$	110
662	1342215387	10370 Hylonome	1.4	2011 Mar 07 00:12:58	1167	B	4	$3.0' \times 10 \times 4.0''$	70
662	1342215388	10370 Hylonome	1.4	2011 Mar 07 00:32:53	1167	G	4	$3.0' \times 10 \times 4.0''$	110
662	1342215389	10370 Hylonome	1.4	2011 Mar 07 00:52:48	1167	G	4	$3.0' \times 10 \times 4.0''$	70
663	1342215607	10370 Hylonome	0.4	2011 Mar 07 23:58:35	1445	B	4	$3.0' \times 10 \times 4.0''$	110
663	1342215608	10370 Hylonome	0.4	2011 Mar 08 00:20:50	1167	B	4	$3.0' \times 10 \times 4.0''$	70
663	1342215609	10370 Hylonome	0.4	2011 Mar 08 00:40:45	1167	G	4	$3.0' \times 10 \times 4.0''$	110
663	1342215610	10370 Hylonome	0.4	2011 Mar 08 01:00:40	1167	G	4	$3.0' \times 10 \times 4.0''$	70
661	1342216137	32532 Thereus	8.7	2011 Mar 06 02:50:34	743	B	2	$3.0' \times 10 \times 4.0''$	110
661	1342216138	32532 Thereus	8.7	2011 Mar 06 03:02:15	603	B	2	$3.0' \times 10 \times 4.0''$	70
661	1342216139	32532 Thereus	8.7	2011 Mar 06 03:12:46	603	G	2	$3.0' \times 10 \times 4.0''$	110
661	1342216140	32532 Thereus	8.8	2011 Mar 06 03:23:17	603	G	2	$3.0' \times 10 \times 4.0''$	70
661	1342216149	32532 Thereus	9.0	2011 Mar 06 10:11:40	932	B	2	$3.0' \times 10 \times 4.0''$	70
661	1342216150	32532 Thereus	9.0	2011 Mar 06 10:24:56	603	B	2	$3.0' \times 10 \times 4.0''$	110
661	1342216151	32532 Thereus	9.0	2011 Mar 06 10:35:27	603	G	2	$3.0' \times 10 \times 4.0''$	110
661	1342216152	32532 Thereus	9.0	2011 Mar 06 10:45:58	603	G	2	$3.0' \times 10 \times 4.0''$	70
675	1342216446	33340 (1998 VG_{44})	6.6	2011 Mar 20 17:18:16	1076	B	3	$3.0' \times 10 \times 4.0''$	110
675	1342216447	33340 (1998 VG_{44})	6.6	2011 Mar 20 17:35:05	885	B	3	$3.0' \times 10 \times 4.0''$	70
675	1342216448	33340 (1998 VG_{44})	6.6	2011 Mar 20 17:50:18	885	G	3	$3.0' \times 10 \times 4.0''$	110
675	1342216449	33340 (1998 VG_{44})	6.6	2011 Mar 20 18:05:31	885	G	3	$3.0' \times 10 \times 4.0''$	70
676	1342216559	33340 (1998 VG_{44})	7.7	2011 Mar 21 21:34:00	1058	B	3	$3.0' \times 10 \times 4.0''$	110
676	1342216560	33340 (1998 VG_{44})	7.7	2011 Mar 21 21:50:40	885	B	3	$3.0' \times 10 \times 4.0''$	70
676	1342216561	33340 (1998 VG_{44})	7.8	2011 Mar 21 22:05:53	885	G	3	$3.0' \times 10 \times 4.0''$	110
676	1342216562	33340 (1998 VG_{44})	7.7	2011 Mar 21 22:21:06	885	G	3	$3.0' \times 10 \times 4.0''$	70
684	1342217343	230965 (2004 XA_{192})	11.8	2011 Mar 29 03:04:21	1911	B	2	$3.0' \times 10 \times 4.0''$	110
684	1342217344	230965 (2004 XA_{192})	7.0	2011 Mar 29 03:25:47	603	B	2	$3.0' \times 10 \times 4.0''$	70
684	1342217345	230965 (2004 XA_{192})	6.9	2011 Mar 29 03:36:18	603	G	2	$3.0' \times 10 \times 4.0''$	110
684	1342217346	230965 (2004 XA_{192})	7.0	2011 Mar 29 03:46:49	603	G	2	$3.0' \times 10 \times 4.0''$	70
684	1342217399	230965 (2004 XA_{192})	7.4	2011 Mar 29 17:21:00	709	B	2	$3.0' \times 10 \times 4.0''$	110
684	1342217400	230965 (2004 XA_{192})	7.4	2011 Mar 29 17:32:24	603	B	2	$3.0' \times 10 \times 4.0''$	70
684	1342217401	230965 (2004 XA_{192})	7.4	2011 Mar 29 17:42:55	603	G	2	$3.0' \times 10 \times 4.0''$	110
684	1342217402	230965 (2004 XA_{192})	7.5	2011 Mar 29 17:53:26	603	G	2	$3.0' \times 10 \times 4.0''$	70
703	1342218722	20000 Varuna	6.2	2011 Apr 17 05:49:51	14218	G	51	$2.5' \times 10 \times 4.0''$	110
704	1342218768	145486 (2005 UJ_{438})	-1.0	2011 Apr 18 00:45:54	2892	B	5	$3.0' \times 10 \times 4.0''$	110
704	1342218769	145486 (2005 UJ_{438})	-1.0	2011 Apr 18 01:22:33	1449	B	5	$3.0' \times 10 \times 4.0''$	70
704	1342218770	145486 (2005 UJ_{438})	-0.9	2011 Apr 18 01:47:10	1449	G	5	$3.0' \times 10 \times 4.0''$	110
704	1342218771	145486 (2005 UJ_{438})	-0.9	2011 Apr 18 02:11:47	1448	G	5	$3.0' \times 10 \times 4.0''$	70
704	1342218784	145486 (2005 UJ_{438})	-0.7	2011 Apr 18 07:01:30	1805	B	5	$3.0' \times 10 \times 4.0''$	110
704	1342218785	145486 (2005 UJ_{438})	-0.7	2011 Apr 18 07:29:06	1449	B	5	$3.0' \times 10 \times 4.0''$	70
704	1342218786	145486 (2005 UJ_{438})	-0.7	2011 Apr 18 07:53:43	1448	G	5	$3.0' \times 10 \times 4.0''$	110
704	1342218787	145486 (2005 UJ_{438})	-0.7	2011 Apr 18 08:18:20	1449	G	5	$3.0' \times 10 \times 4.0''$	70
705	1342219009	2004 PG_{115}	24.4	2011 Apr 19 00:24:05	626	B	2	$3.0' \times 10 \times 4.0''$	110
705	1342219010	2004 PG_{115}	24.4	2011 Apr 19 00:34:48	603	B	2	$3.0' \times 10 \times 4.0''$	70
705	1342219011	2004 PG_{115}	24.4	2011 Apr 19 00:45:19	603	G	2	$3.0' \times 10 \times 4.0''$	110
705	1342219012	2004 PG_{115}	24.4	2011 Apr 19 00:55:50	603	G	2	$3.0' \times 10 \times 4.0''$	70
705	1342219015	2004 NT_{33}	21.4	2011 Apr 19 01:23:53	949	B	3	$3.0' \times 10 \times 4.0''$	110
705	1342219016	2004 NT_{33}	21.4	2011 Apr 19 01:39:38	885	B	3	$3.0' \times 10 \times 4.0''$	70
705	1342219017	2004 NT_{33}	21.4	2011 Apr 19 01:54:51	885	G	3	$3.0' \times 10 \times 4.0''$	110
705	1342219018	2004 NT_{33}	21.3	2011 Apr 19 02:10:04	885	G	3	$3.0' \times 10 \times 4.0''$	70
705	1342219023	20000 Varuna	8.1	2011 Apr 19 05:26:57	14102	G	51	$2.5' \times 10 \times 4.0''$	110

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Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
705	1342219044	2004 NT_{33}	21.0	2011 Apr 19 12:52:21	1057	B	3	$3.0' \times 10 \times 4.0''$	110
705	1342219045	2004 NT_{33}	21.0	2011 Apr 19 13:09:00	885	B	3	$3.0' \times 10 \times 4.0''$	70
705	1342219046	2004 NT_{33}	21.0	2011 Apr 19 13:24:13	885	G	3	$3.0' \times 10 \times 4.0''$	110
705	1342219047	2004 NT_{33}	21.0	2011 Apr 19 13:39:26	885	G	3	$3.0' \times 10 \times 4.0''$	70
705	1342219048	2004 PG_{115}	23.9	2011 Apr 19 13:54:09	757	B	2	$3.0' \times 10 \times 4.0''$	110
705	1342219049	2004 PG_{115}	23.9	2011 Apr 19 14:05:57	603	B	2	$3.0' \times 10 \times 4.0''$	70
705	1342219050	2004 PG_{115}	23.8	2011 Apr 19 14:16:28	603	G	2	$3.0' \times 10 \times 4.0''$	110
705	1342219051	2004 PG_{115}	23.9	2011 Apr 19 14:26:59	603	G	2	$3.0' \times 10 \times 4.0''$	70
723	1342220081	225088 (2007 OR_{10})	15.9	2011 May 07 01:40:17	1692	B	4	$3.0' \times 10 \times 4.0''$	110
723	1342220082	225088 (2007 OR_{10})	15.9	2011 May 07 02:04:35	1167	B	4	$3.0' \times 10 \times 4.0''$	70
723	1342220083	225088 (2007 OR_{10})	15.9	2011 May 07 02:24:30	1167	G	4	$3.0' \times 10 \times 4.0''$	110
723	1342220084	225088 (2007 OR_{10})	15.9	2011 May 07 02:44:25	1167	G	4	$3.0' \times 10 \times 4.0''$	70
726	1342220272	225088 (2007 OR_{10})	13.1	2011 May 09 23:23:46	1630	B	4	$3.0' \times 10 \times 4.0''$	110
726	1342220273	225088 (2007 OR_{10})	13.1	2011 May 09 23:47:33	1167	B	4	$3.0' \times 10 \times 4.0''$	70
726	1342220274	225088 (2007 OR_{10})	13.1	2011 May 10 00:07:28	1167	G	4	$3.0' \times 10 \times 4.0''$	110
726	1342220275	225088 (2007 OR_{10})	13.1	2011 May 10 00:27:23	1167	G	4	$3.0' \times 10 \times 4.0''$	70
720	1342220559	44594 (1999 OX_3)	27.6	2011 May 03 23:36:25	1794	B	5	$3.0' \times 10 \times 4.0''$	110
720	1342220560	44594 (1999 OX_3)	27.6	2011 May 04 00:03:55	1448	B	5	$3.0' \times 10 \times 4.0''$	70
720	1342220561	44594 (1999 OX_3)	27.6	2011 May 04 00:28:32	1449	G	5	$3.0' \times 10 \times 4.0''$	110
720	1342220562	44594 (1999 OX_3)	27.6	2011 May 04 00:53:09	1449	G	5	$3.0' \times 10 \times 4.0''$	70
720	1342220578	44594 (1999 OX_3)	27.3	2011 May 04 09:13:58	2074	B	5	$3.0' \times 10 \times 4.0''$	110
720	1342220579	44594 (1999 OX_3)	27.2	2011 May 04 09:43:48	1449	B	5	$3.0' \times 10 \times 4.0''$	70
720	1342220580	44594 (1999 OX_3)	27.2	2011 May 04 10:08:25	1449	G	5	$3.0' \times 10 \times 4.0''$	110
720	1342220581	44594 (1999 OX_3)	27.2	2011 May 04 10:33:02	1449	G	5	$3.0' \times 10 \times 4.0''$	70
743	1342221729	145480 (2005 TB_{190})	12.1	2011 May 27 02:43:10	1449	B	4	$3.0' \times 10 \times 4.0''$	110
743	1342221730	145480 (2005 TB_{190})	12.1	2011 May 27 03:05:26	1167	B	4	$3.0' \times 10 \times 4.0''$	70
743	1342221731	145480 (2005 TB_{190})	12.0	2011 May 27 03:25:21	1167	G	4	$3.0' \times 10 \times 4.0''$	110
743	1342221732	145480 (2005 TB_{190})	12.0	2011 May 27 03:45:16	1167	G	4	$3.0' \times 10 \times 4.0''$	70
743	1342221733	66652 Borasisi	8.6	2011 May 27 04:10:40	1824	B	6	$3.0' \times 10 \times 4.0''$	110
743	1342221734	66652 Borasisi	8.6	2011 May 27 04:40:46	1730	B	6	$3.0' \times 10 \times 4.0''$	70
743	1342221735	66652 Borasisi	8.5	2011 May 27 05:10:05	1730	G	6	$3.0' \times 10 \times 4.0''$	110
743	1342221736	66652 Borasisi	8.5	2011 May 27 05:39:24	1730	G	6	$3.0' \times 10 \times 4.0''$	70
743	1342221751	86177 (1999 RY_{215})	11.3	2011 May 27 13:40:51	1571	B	5	$3.0' \times 10 \times 4.0''$	110
743	1342221752	86177 (1999 RY_{215})	11.3	2011 May 27 14:06:30	1449	B	5	$3.0' \times 10 \times 4.0''$	70
743	1342221753	86177 (1999 RY_{215})	11.3	2011 May 27 14:31:07	1448	G	5	$3.0' \times 10 \times 4.0''$	110
743	1342221754	86177 (1999 RY_{215})	11.2	2011 May 27 14:55:44	1449	G	5	$3.0' \times 10 \times 4.0''$	70
744	1342221778	86177 (1999 RY_{215})	10.5	2011 May 28 11:00:02	2409	B	5	$3.0' \times 10 \times 4.0''$	70
744	1342221779	86177 (1999 RY_{215})	10.5	2011 May 28 11:32:40	1448	B	5	$3.0' \times 10 \times 4.0''$	110
744	1342221780	86177 (1999 RY_{215})	10.4	2011 May 28 11:57:17	1449	G	5	$3.0' \times 10 \times 4.0''$	70
744	1342221781	86177 (1999 RY_{215})	10.4	2011 May 28 12:21:54	1448	G	5	$3.0' \times 10 \times 4.0''$	110
744	1342221782	145480 (2005 TB_{190})	10.7	2011 May 28 12:44:10	1167	B	4	$3.0' \times 10 \times 4.0''$	110
744	1342221783	145480 (2005 TB_{190})	10.7	2011 May 28 13:04:05	1167	B	4	$3.0' \times 10 \times 4.0''$	70
744	1342221784	145480 (2005 TB_{190})	10.7	2011 May 28 13:24:00	1167	G	4	$3.0' \times 10 \times 4.0''$	110
744	1342221785	145480 (2005 TB_{190})	10.7	2011 May 28 13:43:55	1167	G	4	$3.0' \times 10 \times 4.0''$	70
744	1342221806	66652 Borasisi	7.2	2011 May 28 16:59:33	1789	B	6	$3.0' \times 10 \times 4.0''$	110
744	1342221807	66652 Borasisi	7.1	2011 May 28 17:29:22	1730	B	6	$3.0' \times 10 \times 4.0''$	70
744	1342221808	66652 Borasisi	7.1	2011 May 28 17:58:41	1730	G	6	$3.0' \times 10 \times 4.0''$	110
744	1342221809	66652 Borasisi	7.1	2011 May 28 18:28:00	1730	G	6	$3.0' \times 10 \times 4.0''$	70
745	1342221837	Sycorax	26.6	2011 May 29 02:13:24	1553	B	4	$3.0' \times 10 \times 4.0''$	110
745	1342221838	Sycorax	26.6	2011 May 29 02:36:33	1167	B	4	$3.0' \times 10 \times 4.0''$	70
745	1342221839	Sycorax	26.5	2011 May 29 02:56:28	1167	G	4	$3.0' \times 10 \times 4.0''$	110
745	1342221840	Sycorax	26.6	2011 May 29 03:16:23	1167	G	4	$3.0' \times 10 \times 4.0''$	70
745	1342221875	Sycorax	26.3	2011 May 29 10:34:29	1840	B	4	$3.0' \times 10 \times 4.0''$	110
745	1342221876	Sycorax	26.3	2011 May 29 11:00:01	1167	B	4	$3.0' \times 10 \times 4.0''$	70
745	1342221877	Sycorax	26.2	2011 May 29 11:19:56	1167	G	4	$3.0' \times 10 \times 4.0''$	110
745	1342221878	Sycorax	26.2	2011 May 29 11:39:51	1167	G	4	$3.0' \times 10 \times 4.0''$	70
757	1342222430	19308 (1996 TO_{66})	25.4	2011 Jun 09 23:44:33	1513	B	5	$3.0' \times 10 \times 4.0''$	110
757	1342222431	19308 (1996 TO_{66})	25.4	2011 Jun 10 00:09:42	1449	B	5	$3.0' \times 10 \times 4.0''$	70
757	1342222432	19308 (1996 TO_{66})	25.4	2011 Jun 10 00:34:19	1449	G	5	$3.0' \times 10 \times 4.0''$	110
757	1342222433	19308 (1996 TO_{66})	25.4	2011 Jun 10 00:58:56	1448	G	5	$3.0' \times 10 \times 4.0''$	70
757	1342222436	135182 (2001 QT_{322})	19.6	2011 Jun 10 05:29:02	1798	B	6	$3.0' \times 10 \times 4.0''$	110
757	1342222437	135182 (2001 QT_{322})	19.6	2011 Jun 10 05:58:55	1731	B	6	$3.0' \times 10 \times 4.0''$	70
757	1342222438	135182 (2001 QT_{322})	19.6	2011 Jun 10 06:28:14	1730	G	6	$3.0' \times 10 \times 4.0''$	110
757	1342222439	135182 (2001 QT_{322})	19.6	2011 Jun 10 06:57:33	1730	G	6	$3.0' \times 10 \times 4.0''$	70
758	1342222481	19308 (1996 TO_{66})	24.6	2011 Jun 10 21:40:25	2225	B	5	$3.0' \times 10 \times 4.0''$	70
758	1342222482	19308 (1996 TO_{66})	24.6	2011 Jun 10 22:11:31	1449	B	5	$3.0' \times 10 \times 4.0''$	110
758	1342222483	19308 (1996 TO_{66})	24.6	2011 Jun 10 22:36:08	1448	G	5	$3.0' \times 10 \times 4.0''$	70
758	1342222484	19308 (1996 TO_{66})	24.6	2011 Jun 10 23:00:45	1449	G	5	$3.0' \times 10 \times 4.0''$	110
758	1342222485	135182 (2001 QT_{322})	18.9	2011 Jun 10 23:28:38	1840	B	6	$3.0' \times 10 \times 4.0''$	110
758	1342222486	135182 (2001 QT_{322})	18.9	2011 Jun 10 23:58:52	1730	B	6	$3.0' \times 10 \times 4.0''$	70
758	1342222487	135182 (2001 QT_{322})	18.9	2011 Jun 11 00:28:11	1730	G	6	$3.0' \times 10 \times 4.0''$	110
758	1342222488	135182 (2001 QT_{322})	18.9	2011 Jun 11 00:57:30	1730	G	6	$3.0' \times 10 \times 4.0''$	70
769	1342222926	2008 FC_{76}	1.8	2011 Jun 22 08:15:09	741	B	2	$3.0' \times 10 \times 4.0''$	110
769	1342222927	2008 FC_{76}	1.8	2011 Jun 22 08:26:49	603	B	2	$3.0' \times 10 \times 4.0''$	70
769	1342222928	2008 FC_{76}	1.8	2011 Jun 22 08:37:20	603	G	2	$3.0' \times 10 \times 4.0''$	110
769	1342222929	2008 FC_{76}	1.8	2011 Jun 22 08:47:51	603	G	2	$3.0' \times 10 \times 4.0''$	70
769	1342222933	2008 FC_{76}	1.6	2011 Jun 22 13:15:45	1022	B	2	$3.0' \times 10 \times 4.0''$	110
769	1342222934	2008 FC_{76}	1.6	2011 Jun 22 13:29:46	603	B	2	$3.0' \times 10 \times 4.0''$	70
769	1342222935	2008 FC_{76}	1.6	2011 Jun 22 13:40:17	603	G	2	$3.0' \times 10 \times 4.0''$	70
769	1342222936	2008 FC_{76}	1.6	2011 Jun 22 13:50:48	603	G	2	$3.0' \times 10 \times 4.0''$	110

continued on next page

Table 3: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
781	1342223635	26375 (1999 DE_9)	16.3	2011 Jul 03 17:03:15	638	B	2	$3.0' \times 10 \times 4.0''$	110
781	1342223636	26375 (1999 DE_9)	16.3	2011 Jul 03 17:14:04	603	B	2	$3.0' \times 10 \times 4.0''$	70
781	1342223637	26375 (1999 DE_9)	16.3	2011 Jul 03 17:24:35	603	G	2	$3.0' \times 10 \times 4.0''$	110
781	1342223638	26375 (1999 DE_9)	16.3	2011 Jul 03 17:35:06	603	G	2	$3.0' \times 10 \times 4.0''$	70
781	1342223670	26375 (1999 DE_9)	17.1	2011 Jul 04 13:36:54	1037	B	2	$3.0' \times 10 \times 4.0''$	110
781	1342223671	26375 (1999 DE_9)	17.1	2011 Jul 04 13:51:02	603	B	2	$3.0' \times 10 \times 4.0''$	70
781	1342223672	26375 (1999 DE_9)	17.1	2011 Jul 04 14:01:33	603	G	2	$3.0' \times 10 \times 4.0''$	70
781	1342223673	26375 (1999 DE_9)	17.1	2011 Jul 04 14:12:04	603	G	2	$3.0' \times 10 \times 4.0''$	110
830	1342227033	28978 Ixion	-17.8	2011 Aug 21 14:22:29	974	B	2	$3.0' \times 10 \times 4.0''$	110
830	1342227034	28978 Ixion	-17.8	2011 Aug 21 14:36:06	603	B	2	$3.0' \times 10 \times 4.0''$	70
830	1342227035	28978 Ixion	-17.8	2011 Aug 21 14:46:37	603	G	2	$3.0' \times 10 \times 4.0''$	110
830	1342227036	28978 Ixion	-17.8	2011 Aug 21 14:57:08	603	G	2	$3.0' \times 10 \times 4.0''$	70
832	1342227152	28978 Ixion	-15.1	2011 Aug 24 08:59:17	672	B	2	$3.0' \times 10 \times 4.0''$	110
832	1342227153	28978 Ixion	-15.1	2011 Aug 24 09:10:23	603	B	2	$3.0' \times 10 \times 4.0''$	70
832	1342227154	28978 Ixion	-15.1	2011 Aug 24 09:20:54	603	G	2	$3.0' \times 10 \times 4.0''$	110
832	1342227155	28978 Ixion	-15.1	2011 Aug 24 09:31:25	603	G	2	$3.0' \times 10 \times 4.0''$	70
859	1342228922	2003 WU_{188}	16.6	2011 Sep 19 16:29:34	1798	B	6	$3.0' \times 10 \times 4.0''$	110
859	1342228923	2003 WU_{188}	16.6	2011 Sep 19 16:59:27	1730	B	6	$3.0' \times 10 \times 4.0''$	70
859	1342228924	2003 WU_{188}	16.5	2011 Sep 19 17:28:46	1730	G	6	$3.0' \times 10 \times 4.0''$	110
859	1342228925	2003 WU_{188}	16.5	2011 Sep 19 17:58:05	1730	G	6	$3.0' \times 10 \times 4.0''$	70
860	1342229040	2003 WU_{188}	15.7	2011 Sep 20 15:49:33	1902	B	6	$3.0' \times 10 \times 4.0''$	110
860	1342229041	2003 WU_{188}	15.6	2011 Sep 20 16:20:18	1730	B	6	$3.0' \times 10 \times 4.0''$	70
860	1342229042	2003 WU_{188}	15.6	2011 Sep 20 16:49:37	1730	G	6	$3.0' \times 10 \times 4.0''$	110
860	1342229043	2003 WU_{188}	15.6	2011 Sep 20 17:18:56	1730	G	6	$3.0' \times 10 \times 4.0''$	70
935	1342233581	2003 QA_{91}	7.7	2011 Dec 04 12:50:41	1871	B	6	$3.0' \times 10 \times 4.0''$	110
935	1342233582	2003 QA_{91}	7.7	2011 Dec 04 13:21:11	1730	B	6	$3.0' \times 10 \times 4.0''$	70
935	1342233583	2003 QA_{91}	7.7	2011 Dec 04 13:50:30	1730	G	6	$3.0' \times 10 \times 4.0''$	110
935	1342233584	2003 QA_{91}	7.8	2011 Dec 04 14:19:49	1730	G	6	$3.0' \times 10 \times 4.0''$	70
936	1342234252	2003 QA_{91}	9.1	2011 Dec 05 21:39:42	2621	B	6	$3.0' \times 10 \times 4.0''$	110
936	1342234253	2003 QA_{91}	9.1	2011 Dec 05 22:16:27	1730	B	6	$3.0' \times 10 \times 4.0''$	70
936	1342234254	2003 QA_{91}	9.1	2011 Dec 05 22:45:46	1730	G	6	$3.0' \times 10 \times 4.0''$	110
936	1342234255	2003 QA_{91}	9.2	2011 Dec 05 23:15:05	1730	G	6	$3.0' \times 10 \times 4.0''$	70
968	1342236630	82155 (2001 FZ_{173})	10.5	2012 Jan 06 17:39:23	1204	B	4	$3.0' \times 10 \times 4.0''$	110
968	1342236631	82155 (2001 FZ_{173})	10.5	2012 Jan 06 17:59:37	1167	B	4	$3.0' \times 10 \times 4.0''$	70
968	1342236632	82155 (2001 FZ_{173})	10.4	2012 Jan 06 18:19:32	1167	G	4	$3.0' \times 10 \times 4.0''$	110
968	1342236633	82155 (2001 FZ_{173})	10.4	2012 Jan 06 18:39:27	1167	G	4	$3.0' \times 10 \times 4.0''$	70
969	1342236908	82155 (2001 FZ_{173})	9.5	2012 Jan 07 15:27:50	1410	B	4	$3.0' \times 10 \times 4.0''$	110
969	1342236909	82155 (2001 FZ_{173})	9.5	2012 Jan 07 15:49:47	1167	B	4	$3.0' \times 10 \times 4.0''$	70
969	1342236910	82155 (2001 FZ_{173})	9.5	2012 Jan 07 16:09:42	1167	G	4	$3.0' \times 10 \times 4.0''$	110
969	1342236911	82155 (2001 FZ_{173})	9.5	2012 Jan 07 16:29:37	1167	G	4	$3.0' \times 10 \times 4.0''$	70
973	1342237146	133067 (2003 FB_{128})	27.8	2012 Jan 11 16:10:44	1336	B	4	$3.0' \times 10 \times 4.0''$	110
973	1342237147	133067 (2003 FB_{128})	27.7	2012 Jan 11 16:32:04	1167	B	4	$3.0' \times 10 \times 4.0''$	70
973	1342237148	133067 (2003 FB_{128})	27.7	2012 Jan 11 16:51:59	1167	G	4	$3.0' \times 10 \times 4.0''$	110
973	1342237149	133067 (2003 FB_{128})	27.7	2012 Jan 11 17:11:54	1167	G	4	$3.0' \times 10 \times 4.0''$	70
973	1342237150	2003 FE_{128}	27.9	2012 Jan 11 17:34:10	1448	B	5	$3.0' \times 10 \times 4.0''$	110
973	1342237151	2003 FE_{128}	27.9	2012 Jan 11 17:58:47	1449	B	5	$3.0' \times 10 \times 4.0''$	70
973	1342237152	2003 FE_{128}	27.9	2012 Jan 11 18:23:24	1448	G	5	$3.0' \times 10 \times 4.0''$	110
973	1342237153	2003 FE_{128}	27.8	2012 Jan 11 18:48:01	1449	G	5	$3.0' \times 10 \times 4.0''$	70
973	1342237226	133067 (2003 FB_{128})	27.1	2012 Jan 12 07:57:30	1355	B	4	$3.0' \times 10 \times 4.0''$	110
973	1342237227	133067 (2003 FB_{128})	27.1	2012 Jan 12 08:18:59	1167	B	4	$3.0' \times 10 \times 4.0''$	70
973	1342237228	133067 (2003 FB_{128})	27.0	2012 Jan 12 08:38:54	1167	G	4	$3.0' \times 10 \times 4.0''$	110
973	1342237229	133067 (2003 FB_{128})	27.1	2012 Jan 12 08:58:49	1167	G	4	$3.0' \times 10 \times 4.0''$	70
973	1342237230	2003 FE_{128}	27.2	2012 Jan 12 09:21:05	1448	B	5	$3.0' \times 10 \times 4.0''$	70
973	1342237231	2003 FE_{128}	27.2	2012 Jan 12 09:45:42	1449	B	5	$3.0' \times 10 \times 4.0''$	110
973	1342237232	2003 FE_{128}	27.2	2012 Jan 12 10:10:19	1448	G	5	$3.0' \times 10 \times 4.0''$	70
973	1342237233	2003 FE_{128}	27.2	2012 Jan 12 10:34:56	1449	G	5	$3.0' \times 10 \times 4.0''$	110
1000	1342238745	143707 (2003 UY_{117})	15.2	2012 Feb 07 20:12:13	1950	B	6	$3.0' \times 10 \times 4.0''$	110
1000	1342238746	143707 (2003 UY_{117})	15.2	2012 Feb 07 20:43:22	1730	B	6	$3.0' \times 10 \times 4.0''$	70
1001	1342238790	143707 (2003 UY_{117})	15.8	2012 Feb 08 11:10:27	1997	B	6	$3.0' \times 10 \times 4.0''$	110
1001	1342238791	143707 (2003 UY_{117})	15.9	2012 Feb 08 11:42:00	1730	B	6	$3.0' \times 10 \times 4.0''$	70
1215	1342250794	2003 WU_{172}	12.4	2012 Sep 10 00:42:01	941	B	2	$3.0' \times 10 \times 4.0''$	110
1215	1342250795	2003 WU_{172}	12.4	2012 Sep 10 00:55:21	603	B	2	$3.0' \times 10 \times 4.0''$	70
1215	1342250796	2003 WU_{172}	12.4	2012 Sep 10 01:08:13	885	G	3	$3.0' \times 10 \times 4.0''$	110
1215	1342250797	2003 WU_{172}	12.4	2012 Sep 10 01:23:26	885	G	3	$3.0' \times 10 \times 4.0''$	70
1216	1342250830	2003 WU_{172}	11.7	2012 Sep 10 20:15:56	716	B	2	$3.0' \times 10 \times 4.0''$	70
1216	1342250831	2003 WU_{172}	11.6	2012 Sep 10 20:27:24	603	B	2	$3.0' \times 10 \times 4.0''$	110
1216	1342250832	2003 WU_{172}	11.6	2012 Sep 10 20:40:16	885	G	3	$3.0' \times 10 \times 4.0''$	70
1216	1342250833	2003 WU_{172}	11.6	2012 Sep 10 20:55:29	885	G	3	$3.0' \times 10 \times 4.0''$	110

Additional scan-map observations in other proposals

Table 4: Herschel-PACS photometer scan-map observations (proposals OT1_evileniu_1, DDT_ckiss_2, DDT_ckiss_3, OT2_elellouc_2, DDT_mustdo_3), taken in "large scan" observing mode, high gain, SSO tracking, satellite scan speed: always 20″/s. SAA: solar aspect angle; Dur.: duration of observation in seconds; Fil.: filter/band combination (B: 70/160 μm; G: 100/160 μm); Rep: repetition of entire scan map; scan-map parameters: scan-leg length (in arc min) × number of scan legs × scan-leg separation (in arc sec); angle: satellite scan angle in degrees with respect to instrument reference frame.

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
807	1342224854[2]	136199 Eris	-13.1	2011 Jul 29 19:22:24	17348	G	60	3.0′ × 10 × 4.0″	110
807	1342224855[2]	136199 Eris	-13.3	2011 Jul 30 00:08:46	15263	B	60	3.0′ × 10 × 4.0″	110
810	1342225116[2]	136199 Eris	-15.9	2011 Aug 01 22:55:52	1175	G	2	3.0′ × 10 × 4.0″	110
810	1342225117[2]	136199 Eris	-16.0	2011 Aug 01 23:11:09	603	G	2	3.0′ × 10 × 4.0″	70
810	1342225118[2]	136199 Eris	-16.1	2011 Aug 01 23:21:40	603	B	2	3.0′ × 10 × 4.0″	110
810	1342225119[2]	136199 Eris	-16.1	2011 Aug 01 23:32:11	603	B	2	3.0′ × 10 × 4.0″	70
871	1342229967[2]	50000 Quaoar	17.7	2011 Oct 01 22:15:48	23558	G	82	3.0′ × 10 × 4.0″	110
872	1342230111[2]	50000 Quaoar	18.7	2011 Oct 02 22:06:35	23767	G	82	3.0′ × 10 × 4.0″	110
873	1342230064[2]	50000 Quaoar	19.6	2011 Oct 03 21:39:02	23818	G	82	3.0′ × 10 × 4.0″	110
1000	1342238741[1,2]	Bgr of Eris	25.1	2012 Feb 07 14:47:09	6747	G	23	3.0′ × 10 × 4.0″	110
1000	1342238742[1,2]	Bgr of Eris	25.1	2012 Feb 07 16:38:03	6525	G	23	3.0′ × 10 × 4.0″	70
1000	1342238743[2]	136199 Eris	26.2	2012 Feb 07 18:08:17	4268	B	15	3.0′ × 10 × 4.0″	110
1000	1342238744[2]	136199 Eris	26.2	2012 Feb 07 19:19:54	4268	B	15	3.0′ × 10 × 4.0″	70
1002	1342238863[2]	136199 Eris	28.0	2012 Feb 09 13:56:21	4388	B	15	3.0′ × 10 × 4.0″	110
1002	1342238864[2]	136199 Eris	28.0	2012 Feb 09 15:08:58	4268	B	15	3.0′ × 10 × 4.0″	70
1035	1342241381[4]	Pluto	15.3	2012 Mar 14 03:00:45	496	B	1	3.0′ × 10 × 4.0″	110
1035	1342241382[4]	Pluto	15.3	2012 Mar 14 03:08:02	321	B	1	3.0′ × 10 × 4.0″	70
1035	1342241383[4]	Pluto	15.4	2012 Mar 14 03:13:51	321	G	1	3.0′ × 10 × 4.0″	110
1035	1342241384[4]	Pluto	15.3	2012 Mar 14 03:19:40	321	G	1	3.0′ × 10 × 4.0″	70
1035	1342241418[4]	Pluto	14.6	2012 Mar 14 19:53:41	474	B	1	3.0′ × 10 × 4.0″	110
1035	1342241419[4]	Pluto	14.6	2012 Mar 14 20:00:47	321	B	1	3.0′ × 10 × 4.0″	70
1035	1342241420[4]	Pluto	14.7	2012 Mar 14 20:06:36	321	G	1	3.0′ × 10 × 4.0″	110
1035	1342241421[4]	Pluto	14.6	2012 Mar 14 20:12:25	321	G	1	3.0′ × 10 × 4.0″	70
1036	1342241471[4]	Pluto	13.9	2012 Mar 15 12:57:33	476	B	1	3.0′ × 10 × 4.0″	110
1036	1342241472[4]	Pluto	13.9	2012 Mar 15 13:04:40	321	B	1	3.0′ × 10 × 4.0″	70
1036	1342241473[4]	Pluto	14.0	2012 Mar 15 13:10:29	321	G	1	3.0′ × 10 × 4.0″	110
1036	1342241474[4]	Pluto	13.9	2012 Mar 15 13:16:18	321	G	1	3.0′ × 10 × 4.0″	70
1037	1342241509[4]	Pluto	13.2	2012 Mar 16 06:33:04	455	B	1	3.0′ × 10 × 4.0″	110
1037	1342241510[4]	Pluto	13.2	2012 Mar 16 06:40:00	321	B	1	3.0′ × 10 × 4.0″	70
1037	1342241511[4]	Pluto	13.2	2012 Mar 16 06:45:49	321	G	1	3.0′ × 10 × 4.0″	110
1037	1342241512[4]	Pluto	13.2	2012 Mar 16 06:51:37	320	G	1	3.0′ × 10 × 4.0″	70
1038	1342241620[4]	Pluto	12.5	2012 Mar 17 00:09:11	466	B	1	3.0′ × 10 × 4.0″	110
1038	1342241621[4]	Pluto	12.5	2012 Mar 17 00:16:13	321	B	1	3.0′ × 10 × 4.0″	70
1038	1342241622[4]	Pluto	12.5	2012 Mar 17 00:22:02	321	G	1	3.0′ × 10 × 4.0″	110
1038	1342241623[4]	Pluto	12.5	2012 Mar 17 00:27:51	321	G	1	3.0′ × 10 × 4.0″	70
1038	1342241655[4]	Pluto	15.9	2012 Mar 17 17:22:23	1487	B	1	3.0′ × 10 × 4.0″	110
1038	1342241656[4]	Pluto	11.8	2012 Mar 17 17:37:55	321	B	1	3.0′ × 10 × 4.0″	70
1038	1342241657[4]	Pluto	11.8	2012 Mar 17 17:43:44	321	G	1	3.0′ × 10 × 4.0″	110
1038	1342241658[4]	Pluto	11.8	2012 Mar 17 17:49:33	321	G	1	3.0′ × 10 × 4.0″	70
1039	1342241699[4]	Pluto	16.8	2012 Mar 18 10:52:49	1714	B	1	3.0′ × 10 × 4.0″	110
1039	1342241700[4]	Pluto	11.1	2012 Mar 18 11:10:15	321	B	1	3.0′ × 10 × 4.0″	70
1039	1342241701[4]	Pluto	11.1	2012 Mar 18 11:16:04	321	G	1	3.0′ × 10 × 4.0″	110
1039	1342241702[4]	Pluto	11.0	2012 Mar 18 11:21:53	321	G	1	3.0′ × 10 × 4.0″	70
1040	1342241865[4]	Pluto	10.4	2012 Mar 19 04:40:59	559	B	1	3.0′ × 10 × 4.0″	110
1040	1342241866[4]	Pluto	10.3	2012 Mar 19 04:48:47	321	B	1	3.0′ × 10 × 4.0″	70
1040	1342241867[4]	Pluto	10.4	2012 Mar 19 04:54:36	321	G	1	3.0′ × 10 × 4.0″	110
1040	1342241868[4]	Pluto	10.3	2012 Mar 19 05:00:25	321	G	1	3.0′ × 10 × 4.0″	70
1040	1342241928[4]	Pluto	16.5	2012 Mar 19 20:33:06	1713	B	1	3.0′ × 10 × 4.0″	110
1040	1342241929[4]	Pluto	9.7	2012 Mar 19 20:50:32	321	B	1	3.0′ × 10 × 4.0″	70
1040	1342241930[4]	Pluto	9.7	2012 Mar 19 20:56:21	321	G	1	3.0′ × 10 × 4.0″	110
1040	1342241931[4]	Pluto	9.7	2012 Mar 19 21:02:10	321	G	1	3.0′ × 10 × 4.0″	70
1108	1342246148[3]	2012 DR_{30}	-6.9	2012 May 25 23:36:48	1895	B	5	3.0′ × 10 × 4.0″	110
1108	1342246149[3]	2012 DR_{30}	-6.9	2012 May 26 00:05:09	1449	B	5	3.0′ × 10 × 4.0″	70
1108	1342246150[3]	2012 DR_{30}	-6.9	2012 May 26 00:29:46	1449	G	5	3.0′ × 10 × 4.0″	110
1108	1342246151[3]	2012 DR_{30}	-6.9	2012 May 26 00:54:23	1448	G	5	3.0′ × 10 × 4.0″	70
1110	1342246215[3]	2012 DR_{30}	-5.3	2012 May 27 21:57:01	1602	B	5	3.0′ × 10 × 4.0″	70
1110	1342246216[3]	2012 DR_{30}	-5.2	2012 May 27 22:22:55	1449	B	5	3.0′ × 10 × 4.0″	110
1110	1342246217[3]	2012 DR_{30}	-5.3	2012 May 27 22:47:32	1448	G	5	3.0′ × 10 × 4.0″	70
1110	1342246218[3]	2012 DR_{30}	-5.2	2012 May 27 23:12:09	1449	G	5	3.0′ × 10 × 4.0″	110
1316	1342257513[5]	Bgr of Chiron	22.4	2012 Dec 19 20:05:06	3123	B	8	2.5′ × 14 × 4.0″	110
1322	1342257765[5]	2060 Chiron	28.3	2012 Dec 25 17:05:18	24182	B	88	2.5′ × 10 × 4.0″	110
1418	1342268974[3]	2013 AZ_{60}	-4.6	2013 Mar 31 18:15:55	1374	B	4	3.0′ × 10 × 4.0″	110
1418	1342268975[3]	2013 AZ_{60}	-4.5	2013 Mar 31 18:37:34	1167	B	4	3.0′ × 10 × 4.0″	70
1418	1342268976[3]	2013 AZ_{60}	-4.6	2013 Mar 31 18:57:29	1167	G	4	3.0′ × 10 × 4.0″	110
1418	1342268977[3]	2013 AZ_{60}	-4.5	2013 Mar 31 19:17:24	1167	G	4	3.0′ × 10 × 4.0″	70
1418	1342268990[3]	2013 AZ_{60}	-4.4	2013 Mar 31 23:50:24	1563	B	4	3.0′ × 10 × 4.0″	70
1418	1342268991[3]	2013 AZ_{60}	-4.4	2013 Apr 01 00:13:38	1167	B	4	3.0′ × 10 × 4.0″	110

continued on next page

Table 4: *continued*

OD	OBSID	Target	SAA	UTC Start time	Dur.	Fil.	Rep.	ScanLeg×n×cross	angle
1418	1342268992[3]	2013 AZ_{60}	-4.3	2013 Apr 01 00:33:33	1167	G	4	$3.0' \times 10 \times 4.0''$	70
1418	1342268993[3]	2013 AZ_{60}	-4.3	2013 Apr 01 00:53:28	1167	G	4	$3.0' \times 10 \times 4.0''$	110

Notes. [(1)] fixed sky position, no SSO tracking; [(2)] part of proposal "OT1_evileniu_1"; [(3)] part of proposal "DDT_ckiss_2" or "DDT_ckiss_3"; [(4)] part of proposal "OT2_elellouc_2"; [(5)] part of proposal "DDT_mustdo_3"; [(6)] part of proposal "OT1_ddan01_1", but these fields are places between Saturn and Phoebe with both being outside.