

GENERAL REPORT OF POSITION OBSERVATIONS BY THE ALPO MINOR PLANETS SECTION FOR THE YEAR 2022

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Observations of positions of minor planets by members of the Minor Planets Section in calendar year 2022 are summarized.

During the year 2022 a total of 630 visual and 2 CCD observations of 170 different minor planets were reported by members of the Minor Planets Section.

The summary lists minor planets in numerical order, the observer and telescope aperture (in cm), UT dates of the observations, and the total number of observations in that interval. When a significant departure from the predicted magnitude was noted, it is stated in the next line below the number of positions. The year is 2022 in each case.

Positional observations were contributed by the following observers:

Observer, Instrument	Location	Planets	Positions
Faure, Gérard		19	53
8 cm binoculars	Moliets (France)		
20 cm Celestron	Vaison la romaine (France)		
20 cm Celestron Fastar	Moliers		
35 cm Meade LX200	Col de L'Arzelier (France)		
45 cm Dobsonian 450	Col de L'Arzelier		
45 cm Stargate D450	Observatoire des Baronnies Provençales		
82 cm Hyperion	Observatoire des Baronnies Provençales		
114 cm Dobsonian	Observatoire des Baronnies Provençales (France)		
Harvey, G. Roger	Concord, North Carolina, USA	149	573
81 cm Newtonian			
35 cm Celestron			
Pryal, Jim	Ellensburg, WA USA	1	4
20 cm f/10 SCT			
Rayon, Jean-Michel		2	9 (2CCD)
45 cm Dobsonian 450	Col de L'Arzelier (France)		
20 cm Vixen RS200SS	Meylan (France)		

MINOR PLANET	OBSERVER & APERTURE (cm)	OBSERVING PERIOD (2022)	NO. OBS.
3799 Novgorod	Harvey, 81	Apr 25	3
3827 Zdenekhorsky	Harvey, 81	Sep 20	3
3837 Carr	Harvey, 81	Mar 1	3
3920 Aubignan	Faure, 35	Jul 3	3
4256 Kagamigawa	Harvey, 81	Oct 20	3
4405 Otava	Harvey, 81	Oct 20	3
4411 Kochibunkyo	Harvey, 81	Feb 10	3
4433 Goldstone	Harvey, 81	May 29	3
4479 Charlieeparker	Harvey, 81	Apr 2	6
4489 Dracius	Harvey, 81	Oct 27-Nov 18	4
4514 Vilen	Harvey, 81	Mar 1	3
4544 Xanthus	Harvey, 81	Apr 10 0.5f@16.2	6
4672 Takuboku	Harvey, 81	Apr 24	6
4768 Hartley	Faure, 35	Aug 24	2
4796 Lewis	Harvey, 81	Sep 22	3
4841 Manjiro	Harvey, 81	Jan 30	3
4858 Vorobjov	Harvey, 81	Feb 6	3
5067 Occidental	Harvey, 81	Apr 23	3
5246 Migliorini	Faure, 35	Jul 2	2
5249 Giza	Harvey, 81	Feb 20	3
5261 Eureka	Faure, 35	Jul 3	4
5300 Sats	Harvey, 81	Sep 16	3
5408 The	Harvey, 81	Mar 7	3
5413 Smyslov	Harvey, 81	Apr 1	3
5554 Keesey	Harvey, 81	Oct 19	3
5693 1993 EA	Harvey, 81	May 20	6
5708 Melancholia	Harvey, 81	Sep 22	3
5861 Glynjones	Harvey, 81	Oct 19	3
5949 1985 RL3	Harvey, 81	May 29	3
6026 Xenophanes	Harvey, 81	Mar 7 0.5b@15.7	3
6036 Weinberg	Harvey, 81	Sep 19	6
6107 Osterbrock	Harvey, 81	Mar 3-7	9
6109 Balseiro	Harvey, 81	Sep 15	3
6183 Viscome	Faure, 35	Aug 24	3
	Harvey, 81	Sep 16	3
6228 Yonezawa	Harvey, 81	Mar 1	3
6316 Mendez	Harvey, 81	Sep 20	3
6755 Solov'yankenko	Harvey, 81	Dec 29	3
6804 Maruseppu	Harvey, 81	Dec 19	3
6856 Bethsimmons	Harvey, 81	Apr 23	6
6872 1993 CN1	Harvey, 81	Mar 2	3
6906 Johnmills	Harvey, 81	Nov 29	3
7004 Markthiemens	Harvey, 81	Nov 4	3
7172 Multatuli	Harvey, 81	Feb 6	3
7272 Darbydyar	Harvey, 81	Apr 25	3
7294 Barbaraakey	Harvey, 81	Apr 10	3
7335 1989 JA	Pryal, 20	May 24	4
7375 1980 PZ	Harvey, 81	Aug 30	3
7482 1994 PC1	Faure, 20	Jan 22	5
	Harvey, 81	Jan 19	6
7513 1985 RU2	Harvey, 81	Sep 22	3
7727 Chepurova	Harvey, 81	Mar 7	3
8107 1995 BR4	Harvey, 81	Mar 1	3
8260 Momcheva	Harvey, 81	Sep 22	3
8297 Gerardfaure	Faure, 114, 82	Mar 25-Apr 4	4
8417 Lancetaylor	Harvey, 81	Sep 21	3
8713 Azusa	Harvey, 81	Jan 23	3
8891 Irokawa	Harvey, 81	Oct 4	3
9346 Fernandel	Harvey, 81	Dec 19	3
9626 Stanley	Harvey, 81	Jan 4	3
9846 1990 OS1	Harvey, 81	Mar 26 0.5f@16.0	3
9853 L'Epee	Harvey, 81	Aug 29	3
9971 Ishihara	Harvey, 81	Apr 22	3
10288 Saville	Harvey, 81	Oct 20	3
10449 Takuma	Harvey, 81	Aug 30	3
10548 1992 PJ2	Harvey, 81	Aug 28	3
10602 Masakazu	Harvey, 81	Sep 22	3
10640 1998 WU19	Harvey, 81	Jan 30	3
10675 Kharlamov	Harvey, 81	Oct 27	3
10722 Monari	Harvey, 81	Oct 27	3
10765 1990 UZ	Harvey, 81	Dec 28	3
10939 1999 CJ19	Harvey, 81	Apr 24	3
11001 Andrewulff	Harvey, 81	Apr 1	3
11023 1986 QZ	Harvey, 81	Aug 28	3
11043 Pepping	Harvey, 81	Dec 19	3
12127 Mamiya	Harvey, 81	Sep 24	3
12219 Grigor'ev	Harvey, 81	Sep 24	3
12499 1998 FR47	Harvey, 81	Aug 30	3
12523 1998 HH100	Harvey, 81	Sep 21	3
12787 Abetadashi	Harvey, 81	Aug 30	3
13138 1994 VA	Harvey, 81	Aug 28	3
14457 1993 FR23	Harvey, 81	Sep 24	3
14859 1989 WU1	Harvey, 81	Sep 22	3
15790 Keizan	Faure, 45	Oct 4	2
	Harvey, 81	Oct 15	6

MINOR PLANET	OBSERVER & APERTURE (cm)	OBSERVING PERIOD (2022)	NO. OBS.
16171 2000 AD97	Harvey, 81	Feb 6	3
16432 1998 VL2	Harvey, 81	Nov 29	3
16827 1997 WD2	Harvey, 81	Nov 28	3
16835 1997 WT34	Harvey, 81	Oct 5 0.4f@16.2	3
17170 Vsevustinov	Harvey, 81	Apr 10	3
17445 Avatcha	Harvey, 81	Sep 16 0.4f@16.1	3
18153 2000 OC61	Harvey, 81	Sep 21	3
18882 1999 YN4	Harvey, 81	Jan 4	6
19230 Sugazi	Harvey, 81	Aug 30	3
19364 Semafor	Harvey, 81	Apr 1	3
19515 1998 QM76	Harvey, 81	Mar 3-7	5
19517 Robertocarlos	Harvey, 81	Mar 27	3
20460 Robwhiteley	Harvey, 81	Jan 6	6
20524 Bustersikes	Harvey, 81	Oct 5	3
21055 1990 YR	Harvey, 81	Oct 15	3
21609 Williamcaleb	Harvey, 81	Oct 19	3
22176 2000 XG36	Harvey, 81	Nov 28	3
23448 1988 BG	Harvey, 81	Jan 23	3
23606 1996 AS1	Harvey, 35	Jul 19	3
	Faure, Rayon, 45	Jul 26	5
23978 1999 JF21	Harvey, 81	Nov 4	3
24642 1984 SA	Harvey, 81	Oct 5	3
25880 2000 QG196	Harvey, 81	Jan 30	3
25916 2001 CP44	Rayon, 20	Jul 1	2CCD
26828 1989 WZ1	Harvey, 81	Oct 27	3
26967 1997 RZ7	Harvey, 81	Aug 28	3
27057 1998 SP33	Harvey, 81	Nov 28	3
30397 2000 KU39	Harvey, 81	Oct 19	3
31383 1998 XJ94	Harvey, 81	Mar 7	3
35143 1992 UF1	Harvey, 81	Oct 15-19	8
35368 1997 UB8	Harvey, 81	Oct 19	3
35369 1997 UJ11	Harvey, 81	Dec 17	6
39002 2000 UO33	Harvey, 81	Oct 21	6
39979 1998 HT12	Harvey, 81	Nov 28	3
51700 2001 KV23	Harvey, 81	Oct 4	3
53090 1998 YS7	Harvey, 81	Sep 15	3
53312 1999 JZ	Harvey, 81	Jan 6	3
55401 2001 SX316	Harvey, 81	Feb 9	3
66875 1999 VY52	Harvey, 81	Nov 28	3
115916 2003 WB8	Harvey, 81	Jan 23	6
118303 1998 UG	Harvey, 81	Dec 17	3
158091 2000 WH56	Harvey, 81	Aug 28	3
163692 2003 CY18	Harvey, 81	May 5	6
195208 2002 DZ3	Harvey, 81	Dec 17	6
217628 Lugh	Harvey, 81	Nov 4	6
226554 2003 WR21	Harvey, 81	Dec 28	6
306399 1996 AX2	Harvey, 81	Nov 29	6
312942 1995 EK1	Harvey, 81	Oct 20	6
317255 2002 DJ5	Harvey, 81	Mar 26-27	12
422787 2001 WS1	Harvey, 81	Oct 19	6
455176 1999 VF22	Harvey, 81	Feb 20	6
506459 2002 AL14	Harvey, 81	Jan 23	6
523823 2015 BG311	Harvey, 81	Oct 15	6
2005 LW3	Harvey, 81	Nov 24	6
2008 TB27	Harvey, 81	Dec 17	6
2010 XC15	Harvey, 81	Dec 24	6
2013 YA14	Harvey, 81	Dec 24	6
2014 HK129	Harvey, 81	Dec 18	6
2015 RN35	Harvey, 81	Dec 17	6
2022 AC4	Harvey, 81	Jan 11	6
2022 BH7	Harvey, 81	Feb 16	6
2022 CO6	Harvey, 81	Feb 15	6
2022 FB2	Harvey, 81	Mar 28	6
2022 UC1	Harvey, 81	Oct 22	6

LIGHTCURVE PHOTOMETRY OPPORTUNITIES: 2023 JULY-SEPTEMBER

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We present lists of asteroid photometry opportunities for objects reaching a favorable apparition and have no or poorly-defined lightcurve parameters. Additional data on these objects will help with shape and spin axis modeling using lightcurve inversion. The “Radar-Optical Opportunities” section includes a list of potential radar targets as well as some that might be in critical need of astrometric data.

We present several lists of asteroids that are prime targets for photometry and/or astrometry during the period 2023 July through September. The “Radar-Optical Opportunities” section provides an expanded list of potential NEA targets, many of which are planned or good candidates for radar observations.

In the first three sets of tables, “Dec” is the declination and “U” is the quality code of the lightcurve. See the latest asteroid lightcurve data base (LCDB from here on; Warner et al., 2009) documentation for an explanation of the U code:

<http://www.minorplanet.info/lightcurvedatabase.html>

The ephemeris generator on the MinorPlanet.info web site allows creating custom lists for objects reaching $V \leq 18.0$ during any month in the current year and up to five years in the future, e.g., limiting the results by magnitude and declination, family, and more.

<https://www.minorplanet.info/php/callopplcdbquery.php>

We refer you to past articles, e.g., Warner et al. (2021a; 2021b) for more detailed discussions about the individual lists and points of advice regarding observations for objects in each list.

Once you’ve obtained and analyzed your data, it’s important to publish your results. Papers appearing in the *Minor Planet Bulletin* are indexed in the Astrophysical Data System (ADS) and so can be referenced by others in subsequent papers. It’s also important to make the data available at least on a personal website or upon request. We urge you to consider submitting your raw data to the ALCDEF database. This can be accessed for uploading and downloading data at