

ALPO COMET NEWS FOR SEPTEMBER 2020

A Publication of the Comets Section of the Association of Lunar and Planetary Observers

By Carl Hergenrother – 2020-September-1

The monthly ALPO Comet News PDF can be found on the ALPO Comets Section website (<http://www.alpo-astronomy.org/cometblog/>). A shorter version of this report is posted on a dedicated Cloudy Nights forum (<https://www.cloudynights.com/topic/726880-alpo-comet-news-for-september-2020/>). All are encouraged to join the discussion over at Cloudy Nights. The ALPO Comet Section welcomes all comet related observations, whether textual descriptions, images, drawings, magnitude estimates, or spectra. You do not have to be a member of ALPO to submit material, though membership is encouraged. To learn more about the ALPO, please visit us @ <http://www.alpo-astronomy.org>.

The bright comets of the past few months are now fading. While C/2020 F3 (NEOWISE) starts the month around 9th magnitude, both C/2017 T2 (PANSTARRS) and C/2019 U6 (Lemmon) have faded to 11-12th magnitude. Taking their place are short-period comet 88P/Howell, which comes to perihelion this month and should be 8th magnitude, and two newly discovered long-period comets, C/2020 M3 (ATLAS) and C/2020 P1 (NEOWISE). The new ATLAS comet could be a nice small telescope object over the next few months. The latest NEOWISE comet is a little more uncertain and may only become bright enough for small aperture observers in late September and early October from the southern hemisphere.

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Bright Comets (magnitude < 10.0)

88P/Howell – Short-period comet 88P/Howell is in the middle of its 9th observed return having been observed at every return since its discovery in 1981. Since discovery its perihelion distance has dropped from 1.62 au to 1.35 au. The primary cause of the decrease in perihelion distance was an approach to Jupiter of 0.53 au in 1990.

Last month, the comet was visually observed to brighten from magnitude 10.4 (Chris Wyatt, Aug. 5.37 UT) to 9.4 (J. J. Gonzalez, Aug. 13.88) and 9.6 (Wyatt, Aug. 24.41). This month 88P is predicted to reach its peak brightness for this return at around magnitude 8.8. While that may not sound bright, it could make 88P the brightest comet of the month. September also marks the comet's perihelion on the 28th.

This month, 88P moves through Libra (Sep 1-14), Scorpius (14-30). It is visible in the evening sky from both hemispheres though a low object for mid to high northern latitudes.

88P/Howell

T = 2020-Sep-28 $q = 1.35$ au

Jupiter-family comet

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El	
								40N	40S
2020 09 01	9.2	15 04	-20 05	1.383	1.340	70	Lib	11	51
2020 09 06	9.1	15 19	-21 17	1.372	1.350	69	Lib	11	50
2020 09 11	9.0	15 35	-22 25	1.364	1.361	68	Lib	11	49
2020 09 16	8.9	15 52	-23 29	1.358	1.372	67	Sco	11	48
2020 09 21	8.8	16 10	-24 26	1.355	1.385	66	Sco	11	47
2020 09 26	8.8	16 28	-25 17	1.353	1.399	66	Sco	11	46
2020 10 01	8.8	16 47	-26 00	1.354	1.415	65	Sco	12	45
2020 10 06	8.8	17 06	-26 35	1.357	1.433	65	Oph	12	44

Comet Magnitude Parameters --- H = 4.7, 2.5n = 25.0, Offset = +15 days

(ref. Seiichi Yoshida - <http://www.aerith.net/comet/catalog/0088P/2020.html>)

C/2020 F3 (NEOWISE) – The “Really Good Comet of 2020” is a shadow of its July grandeur. In August, the ALPO Comets Section received 19 magnitude measurements from 5 observers (M. Deconinck, J. J. Gonzalez, C. Hergenrother, W. Souza, and C. Wyatt) and 15 images from 4 observers (M. Mobberley, M. Napper, M. Olason, and N. Reyren). During August the comet was observed to fade from around magnitude 5.1-5.3 on August 1 to 7.9-8.0 on August 24. The lack of observations during the last week of August is probably due to a bright Moon. Observations should pick up again in early September now that the Moon is past Full.

The comet is still an evening object in September moving through Virgo (Sep 1-15) and Libra (15-30). Its elongation is also decreasing making it a more difficult observation especially from the northern hemisphere. Next month observers in both hemispheres will lose sight of the comet. Photometric parameters have been holding steady since perihelion (fading at 2.5n ~ 9.8). As a result, NEOWISE should fade from around magnitude 9 at the start of the month to magnitude 11 by month's end.



Image of C/2020 F3 (NEOWISE) by Martin Mobberley on 2020 August 11.

C/2020 F3 (NEOWISE)

T = 2020-Jul-03 q = 0.29 au

Dynamically old long period comet

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El	
								40N	40S
2020 09 01	9.3	14 24	-03 07	1.436	1.716	56	Vir	17	32
2020 09 06	9.7	14 32	-05 14	1.525	1.874	54	Vir	15	30
2020 09 11	10.1	14 39	-07 02	1.613	2.030	51	Vir	13	29
2020 09 16	10.5	14 46	-08 36	1.698	2.182	48	Lib	11	26
2020 09 21	10.9	14 53	-09 59	1.782	2.330	45	Lib	9	24
2020 09 26	11.2	14 59	-11 13	1.864	2.473	42	Lib	8	21
2020 10 01	11.5	15 04	-12 19	1.945	2.612	39	Lib	6	18
2020 10 06	11.8	15 10	-13 20	2.025	2.746	36	Lib	4	14

Comet Magnitude Parameters --- H = 6.5, 2.5n = 9.8

C/2020 M3 (ATLAS) – This recent discovery is a Halley-type comet with an orbital period of 138 years. Discovery was by the "Asteroid Terrestrial-Impact Last Alert System" or ATLAS program with a 0.5-m f/2 astrograph on Mauna Loa, Hawaii on June 27. At discovery, the comet was reported at a faint 19th magnitude. Since then it has rapidly brightened. CDD images taken by Carl Hergenrother found the comet to be as bright as magnitude 11.2 on August 25.76. A visual

observation by Chris Wyatt from August 28.75 found the comet to be even brighter at magnitude 10.5. Luminance, V, and R filter images from August 25 also suggest that this comet is currently very gas-rich and dust-poor. The images (see below) look a lot like 2P/Encke when it is pre-perihelion, a large diffuse gas coma and little dust.

This month C/2020 M3 is extremely well placed for observation from the southern hemisphere with the comet nearly overhead in the morning sky in Fornax (Sep 1-13) and Eridanus (13-30). It is a bit low for northern observers at mid to high latitudes. Luckily the comet will be moving north over the next few months. It is possible this comet will reach 8th magnitude or even brighter around the time of its 1.27 au perihelion on October 25 and closest approach to Earth at 0.36 au on November 15.



C/2020 M3 (ATLAS)

T = 2020-Oct-25 $q = 1.27$ au

Halley-type comet - 138-year period

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El	
								40N	40S
2020 09 01	10.7	03 00	-36 26	1.500	0.759	115	For	13	86
2020 09 06	10.5	03 14	-36 21	1.463	0.718	114	For	14	86
2020 09 11	10.2	03 29	-36 05	1.429	0.678	114	For	14	86
2020 09 16	10.0	03 43	-35 34	1.397	0.641	114	Eri	15	85
2020 09 21	9.8	03 56	-34 48	1.368	0.605	114	Eri	15	85
2020 09 26	9.6	04 09	-33 43	1.342	0.571	114	Eri	16	84
2020 10 01	9.4	04 22	-32 16	1.320	0.539	114	Eri	18	82
2020 10 06	9.2	04 34	-30 24	1.301	0.508	115	Eri	20	80

Comet Magnitude Parameters --- H = 9.5, 2.5n = 10.0

Fainter Comets of Interest (fainter than magnitude 10.0)

C/2019 U6 (Lemmon) – This may be the last month for visual observations of *C/2019 U6* as the comet continues to fade after its mid-June perihelion at 0.91 au and late June close approach to Earth at 0.83 au. Both Chris Wyatt and J. J. Gonzalez visually observed the comet to fade from magnitude 10.1 (Gonzalez, Aug. 13.92) and 10.9 (Wyatt, Aug. 24.40). I was able to obtain CCD observations of the comet on August 23 and placed it at 11.4. In the CCD images, the comet possessed a very small condensed inner coma within a larger low surface brightness 5.8' coma.

Lemmon is visible from both hemispheres in the evening though it is becoming a low object for southern observers as it moves through Boötes (Sep 1), Serpens (1-23), and Hercules (23-30).



C/2019 U6 (Lemmon)

T = 2020-Jun-18 q = 0.91 au

Dynamically old long period comet

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El	
								40N	40S
2020 09 01	12.0	15 11	+22 24	1.553	1.663	65	Boo	42	18
2020 09 06	12.3	15 24	+22 39	1.616	1.748	65	Ser	42	17
2020 09 11	12.7	15 37	+22 49	1.679	1.832	65	Ser	43	15
2020 09 16	13.0	15 50	+22 55	1.742	1.917	64	Ser	43	13
2020 09 21	13.3	16 02	+22 59	1.806	2.000	64	Ser	44	12
2020 09 26	13.6	16 14	+23 01	1.869	2.084	63	Her	44	10
2020 10 01	13.9	16 25	+23 02	1.933	2.166	63	Her	44	8
2020 10 06	14.2	16 37	+23 02	1.996	2.249	62	Her	44	5

Comet Magnitude Parameters --- H = 7.3, 2.5n = 15.5, Offset = -12 days

C/2017 T2 (PANSTARRS) – Just like *C/2019 U6*, *C/2017 T2 (PANSTARRS)* is also on the way out and fading fast as it is now 4 months past its May 4th perihelion at 1.62 au. Again, J. J. Gonzalez (magnitude 10.4 on Aug. 13.90 UT) and Chris Wyatt (magnitude 11.8 on Aug. 24.39) were the only two observers to submit magnitude measurements to the ALPO Comets Section. It moves to the southeast through the evening constellations of Virgo (Sep 1-25) and Libra (25-30) and becomes a low object for northern observers.

C/2017 T2 (PANSTARRS)

T = 2020-May-04 $q = 1.62$ au

Long-Period comet - dynamically new

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El (deg)	
								40N	40S
2020 09 01	11.5	14 13	+03 29	2.244	2.707	52	Vir	19	25
2020 09 06	11.7	14 20	+01 24	2.288	2.799	50	Vir	17	24
2020 09 11	11.9	14 27	-00 34	2.332	2.890	47	Vir	15	22
2020 09 16	12.0	14 33	-02 26	2.376	2.981	44	Vir	13	20
2020 09 21	12.2	14 40	-04 11	2.421	3.072	42	Vir	11	18
2020 09 26	12.4	14 47	-05 51	2.466	3.161	39	Lib	9	15
2020 10 01	12.6	14 54	-07 25	2.512	3.248	36	Lib	7	13
2020 10 06	12.7	15 01	-08 55	2.558	3.334	33	Lib	6	10

Comet Magnitude Parameters --- H = 4.6, 2.5n = 13.5

C/2020 P1 (NEOWISE) – Stop me if you’ve heard this one before. The NEOWISE spacecraft discovers a new long-period comet with a small perihelion distance. The new comet is located far south of the Sun and will only be visible from the southern hemisphere until around perihelion. If this sounds like *C/2020 F3 (NEOWISE)*, it is because the same is true for the latest NEOWISE discovery, *C/2020 P1 (NEOWISE)*. Now before anyone gets too excited, the new NEOWISE comet appears to be significantly fainter than F3. In fact, it is about 6 magnitudes fainter intrinsically. We still don’t know if P1 is a dynamically new or old long-period comet, but such a faint object may have a high likelihood of falling apart as it approaches perihelion.

Southern hemisphere observers should watch this object to see just how bright it will get. I was able to obtain CCD images with the iTelescopes T09 0.11-m refractor on August 29. My measurement placed it at magnitude 15.1 but due to a very crowded star field (the comet is currently deep in the Milky Way in Crux) the magnitude could have large error bars. Hopefully visual observers will pick the comet up soon though it will be transiting the dense Milky Way constellations of Crux (Sep 1-13) and Centaurus (13-30) this month.

Currently all indications point to *C/2020 P1* being an intrinsically faint comet. While its brightening trend is still uncertain, the current estimate is for a peak brightness around 6-7th magnitude. A large phase angle of 147 degrees at perihelion enhances the maximum brightness by about 2.4 magnitudes due to forward scattering of dust. Without the forward scattering, we’d be talking about a peak brightness of 9th magnitude. For a comet with perihelion at 0.34 au, that’s just pathetic. Time will tell.

C/2020 P1 (NEOWISE)

T = 2020-Oct-20 $q = 0.34$ au

Long-Period comet – dynamically TBD

Date	Mag	R.A.	Decl.	r	d	Elong	Const	Max El	
								40N	40S
2020 09 01	14.3	12 25	-61 52	1.225	1.050	73	Cru	0	39
2020 09 06	14.0	12 26	-59 26	1.131	1.011	68	Cru	0	36
2020 09 11	13.5	12 28	-56 54	1.034	0.968	63	Cru	0	32
2020 09 16	13.1	12 29	-54 09	0.935	0.920	57	Cen	0	28
2020 09 21	12.6	12 31	-50 58	0.834	0.868	52	Cen	0	23
2020 09 26	12.0	12 31	-47 04	0.731	0.811	46	Cen	0	17
2020 10 01	11.3	12 32	-41 54	0.627	0.752	38	Cen	0	11
2020 10 06	10.5	12 32	-34 42	0.525	0.697	29	Cen	0	5

Comet Magnitude Parameters --- H = 13.5, $2.5n = 8.0$

New Discoveries, Recoveries and Other Comets in the News

C/2020 Q2 (PANSTARRS) – The Pan-STARRS1 1.8-m reflector at Haleakala discovered this 21st magnitude comet on August 22. It resides on an orbit with a 36-year period and passed through perihelion on 2020 February 12 at 5.41 au which is just outside the orbit of Jupiter. Its aphelion is at a distance of 16 au, a few au inside the orbit of Uranus. *C/2020 Q2* is not likely to get any brighter this apparition.

C/2020 Q1 (Borisov) – Gennady Borisov discovered his 10th comet on August 17 with a 0.65-m f/1.5 astrograph. The comet was 16-17th magnitude at discovery. With a perihelion on August 14 at 1.32 au and a close approach to Earth on September 25 at 0.74 au, the newest Comet Borisov may brighten to 14th magnitude.

C/2020 P4 (SOHO) – Worachate Boonplod is a prolific discoverer of comets in SOHO LASCO coronagraph data. On August 5 he detected a diffuse 8th magnitude comet in LASCO C3 images. Over the next two days the comet moved into the C2 field-of-view, brightened to 5th magnitude, and was observed to consist of three components. The comet was also observed by HI-1 camera on the STEREO spacecraft (August 5-8) and by the SWAN instrument on SOHO (July 27-August 1). So far, this comet has only been seen by solar observing spacecraft and due to its faintness and poor elongation, may never be seen from the ground. *C/2020 P4* appears to be a long-period comet with a small perihelion of ~0.08-0.09 au on August 8.

C/2020 P3 (ATLAS) – The ATLAS survey discovered this 19th magnitude comet on August 9 at a far northern declination of +70 degrees. The comet will reach its large perihelion distance of 6.88 au on 2021 March 9. The comet is likely to only brighten to 18th magnitude.

P/2020 P2 = P/2009 Q4 (Boattini) – The ATLAS project also recovered P/2009 Q4 (Boattini) on August 11 at 19th magnitude. Comet Boattini was discovered on 2009 August 26. During its 2009 return, the comet was a reasonably bright object reaching 12-13th magnitude. It was missed at its return in 2015. This year perihelion occurs on 2020 December 17 at 1.32 au with closest approach to Earth a few days later on December 22 at 0.38 au. With close to optimal observing circumstances for its current orbit, P/Boattini may brighten to 12th magnitude in December.

C/2020 P1 (NEOWISE) – The newest NEOWISE comet is discussed above.

C/2019 NJ3 (Lemmon) – The discovery of this object's cometary nature is an awesome example of astronomical sleuthing using online image archives. Back on 2019 July 5, the Mount Lemmon Survey discovered this 20th magnitude object. At the time, no cometary activity was noted. Amateur astronomer Sam Deen was looking through online archival images for additional observations of possible high inclination objects which might be cometary. Even though the original Mount Lemmon data only spanned a little over 1 day, Sam was able to make additional observations in 2019 June, July, and August in images taken with the DECam mosaic camera on the Cerro Tololo 4-m. His report to the comets-ml led to P. Sicoli finding Pan-STARRS2 observations from 2019 July. With a new orbit, numerous observers were able to observe the object and detect cometary activity. *C/2019 NJ3* reaches perihelion on 2020 October 22 at 4.36 au when it will be at its brightest at 18th magnitude.

P/2008 QP20 (LINEAR-Hill) – The next three comets were recovered at their second observed apparition. For some reason, they did not receive new designations [like was done for *P/2020 P2* = *P/2009 Q4* (Boattini)]. *P/2008 QP20* (LINEAR-Hill) was co-discovered by LINEAR and ALPO Solar Section Coordinator Rik Hill in August and September of 2008. LINEAR was using their 1.0-m reflector outside of Socorro, New Mexico and Rik was using the 0.7-m Catalina Schmidt just northeast of Tucson, Arizona. Sam Deen did some archival sleuthing and found 21st magnitude observations of this comet in DECam images taken in January and March 2016. These observations were some months after it passed unseen through perihelion on 2015 May 17. The comet will next be at perihelion on 2022 January 2 at 1.81 au when it should be a 17th magnitude object.

P/2011 R3 (Novichonok-Gerke) – The Pan-STARRS1 telescope recovered this comet at 21st magnitude in June and July of this year. With a 10.3-year period, *P/Novichonok-Gerke* is making its first return since Artyom O. Novichonok and Vladimir V. Gerke discovered it in September 2011. During that apparition, the comet peaked at 17th magnitude. This return should see a similar maximum brightness as it reaches perihelion on 2022 October 5 at 3.47 au.

P/2011 U2 (Bressi) – Pan-STARRS1 also recovered *P/2011 U2* (Bressi) at 20th-22nd magnitude in June and July. Terry Bressi discovered *P/2011 U2* with Spacewatch 0.9-m reflector on Kitt Peak in October 2011. *P/Bressi* passed 0.97 au from Jupiter in February 2020 resulting in its perihelion distance dropping from 4.84 au (in 2012) to 4.13 au (next perihelion on 2023 November 4). The comet is expected to brighten to 17th magnitude during the upcoming apparition.

As always, the Comet Section is happy to receive all comet observations, whether textual descriptions, images, drawings, magnitude estimates, or spectra. Please send your observations via email to < carl.hergenrother @ alpo-astronomy.org >.

Thank you to everyone who contributed to the ALPO Comets Section!

Stay safe and enjoy the sky!

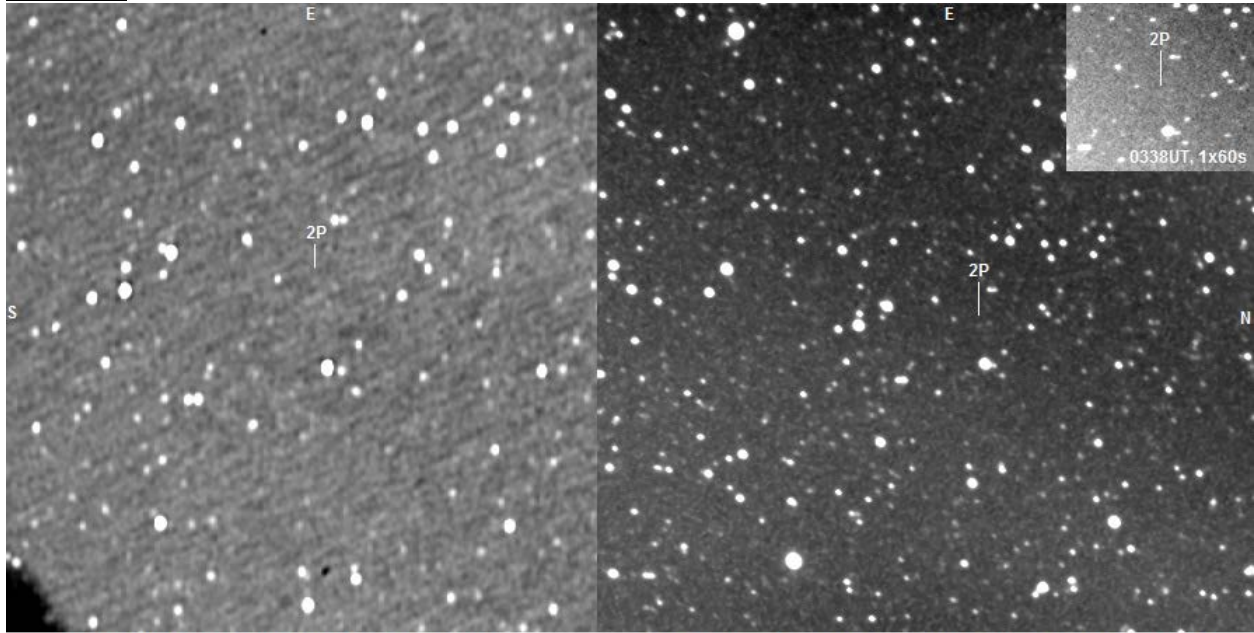
- Carl Hergenrother (ALPO Comets Section Coordinator)

Recent Magnitude Measurements Contributed to the ALPO Comet Section

Comet Des	YYYY MM DD.DD (UT)	Mag	SC	APER	FL	POW	COMA Dia DC	TAIL LENG PA	ICQ CODE	Observer Name
C/2020 Q1 (Borisov)	2020 08 25.14	S	11.6	TK	20.3T10	160	2.5 2		ICQ XX GON05	J. J. Gonzalez Suarez
C/2020 P1 (NEOWISE)	2020 08 29.39	Z	15.1	U4	10.6R	5a720	0.6	0.6 m136	ICQ xx HER02	Carl Hergenrother
C/2020 M3 (ATLAS)	2020 08 28.75	xM	10.5	TK	40.0L	4 40	5.5 3/		ICQ XX WAY	Christopher Wyatt
2020M3	2020 08 26.75	xM	14.5	AQ	40.0L	4 261	0.5 5		ICQ XX WYA	Christopher Wyatt
2020M3	2020 08 25.76	Z	11.2	U4	10.6R	5a300	9.3		ICQ xx HER02	Carl Hergenrother
2020M3	2020 08 25.76	k	14.5	U4	10.6R	5a300	1.8		ICQ xx HER02	Carl Hergenrother
C/2020 K8 (Catalina-ATLAS)	2020 08 25.18	S	10.3	TK	20.3T10	160	3 2		ICQ XX GON05	J. J. Gonzalez Suarez
C/2020 F5 (MASTER)	2020 08 28.73	xM	15.0	AQ	40.0L	4 261	0.5 3		ICQ XX WYA	Christopher Wyatt
2020F5	2020 08 26.73	xM	15.1	AQ	40.0L	4 261	0.3 4/		ICQ XX WYA	Christopher Wyatt
C/2020 F3 (NEOWISE)	2020 08 24.89	S	7.9	TK	20.3T10	77	5 4		ICQ XX GON05	J. J. Gonzalez Suarez
2020F3	2020 08 24.38	xM	8.0	TK	7.0B	15	8.0 4		ICQ XX WYA	Christopher Wyatt
2020F3	2020 08 13.91	S	7.1	TK	5.0B	10	7 6	1.2	ICQ XX GON05	J. J. Gonzalez Suarez
2020F3	2020 08 13.14	M	7.0	TK	5.0B	10	7 5		ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 11.14	M	6.7	TK	5.0B	10	7 5		ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 10.14	M	6.7	TK	5.0B	10	7 5		ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 09.14	M	6.7	TK	5.0B	10	7 5		ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 07.19	M	6.4	TK	5.0B	10	8 5	&0.4 90	ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 06.92	S	6.3	TK	7.0B	15	5 3		ICQ XX SOU01	Willian Souza
2020F3	2020 08 06.87	B	6.5:TK	25.0C10	62	& 5 6	10.0m100		ICQ XX DECa	Michel Deconinck
2020F3	2020 08 06.15	M	6.1	TK	5.0B	10	8 5	&0.6 80	ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 05.92	S	6.0	TK	7.0B	15	5 4		ICQ XX SOU01	Willian Souza
2020F3	2020 08 05.35	xM	5.9	TK	7.0B	15	9.0 5/	1.0 088	ICQ XX WYA	Christopher Wyatt
2020F3	2020 08 05.14	M	6.0	TK	5.0B	10	8 5	& 1.0 70	ICQ xx HER02	Carl Hergenrother
2020F3	2020 08 04.91	S	5.8	TK	7.0B	15	5 5		ICQ XX SOU01	Willian Souza
2020F3	2020 08 03.92	S	5.5	TK	7.0B	15	5 5		ICQ XX SOU01	Willian Souza
2020F3	2020 08 02.35	xM	5.1	TK	7.0B	15	6.5 5/	30.0m 84	ICQ XX WYA	Christopher Wyatt
2020F3	2020 08 01.35	xM	5.1	TK	7.0B	15	6.5 5/	39.0m 80	ICQ XX WYA	Christopher Wyatt
2020F3	2020 08 01.16	M	5.3	TK	5.0B	10	8 6	&2 80	ICQ xx HER02	Carl Hergenrother
C/2019 U6 (Lemmon)	2020 08 24.40	xS	10.9	AQ	25.0L	5 74	2.8 2/		ICQ XX WYA	Christopher Wyatt
2019U6	2020 08 23.16	V	11.8	U4	51.0Y	7a300	5.4		ICQ xx HER02	Carl Hergenrother
2019U6	2020 08 23.16	k	11.7	U4	51.0Y	7a300	5.4		ICQ xx HER02	Carl Hergenrother
2019U6	2020 08 23.16	V	11.4	U4	10.6R	5a420	5.8		ICQ xx HER02	Carl Hergenrother
2019U6	2020 08 23.16	k	11.4	U4	10.6R	5a420	5.8		ICQ xx HER02	Carl Hergenrother
2019U6	2020 08 13.92	S	10.1	TK	20.3T10	77	6 2/		ICQ XX GON05	J. J. Gonzalez Suarez
2019U6	2020 08 05.35	xS	10.2:TK	25.0L	5 40		3.7 3		ICQ XX WYA	Christopher Wyatt
C/2019 N1 (ATLAS)	2020 08 13.89	S	10.6	TK	20.3T10	100	5 3		ICQ XX GON05	J. J. Gonzalez Suarez
C/2018 F4 (PANSTARRS)	2020 08 28.76	xS	14.9	AQ	40.0L	4 182	0.4 3		ICQ XX WYA	Christopher Wyatt
2018F4	2020 08 26.77	xS	15.1	AQ	40.0L	4 182	0.2 4		ICQ XX WYA	Christopher Wyatt
C/2017 T2 (PANSTARRS)	2020 08 24.39	xS	11.8	AQ	25.0L	5 74	1.6 3		ICQ XX WYA	Christopher Wyatt
2017T2	2020 08 13.90	S	10.4	TK	20.3T10	100	6 2/		ICQ XX GON05	J. J. Gonzalez Suarez
C/2017 K2 (PANSTARRS)	2020 08 25.04	I	14.6	AQ	20.3T10	200	0.3 6		ICQ XX GON05	J. J. Gonzalez Suarez
249P/LINEAR	2020 07 03.46	S[8.3	TK	12.5B	30	& 1		ICQ xx HER02	Carl Hergenrother
162P/Siding Spring	2020 08 28.74	xM	15.3	AQ	40.0L	4 261	0.2 5/		ICQ XX WYA	Christopher Wyatt
162	2020 08 26.74	xM	15.3	AQ	40.0L	4 261	0.2 5/		ICQ XX WYA	Christopher Wyatt
88P/Howell	2020 08 24.41	xM	9.6	TK	25.0L	5 40	4.0 3/		ICQ XX WYA	Christopher Wyatt
88	2020 08 13.88	S	9.4	TK	20.3T10	77	7 2		ICQ XX GON05	J. J. Gonzalez Suarez
88	2020 08 05.37	xM	10.4	TK	25.0L	5 40	3.8 4		ICQ XX WYA	Christopher Wyatt
58P/Jackson-Neujmin	2020 08 25.15	S	10.9	TK	20.3T10	77	3.5 1		ICQ XX GON05	J. J. Gonzalez Suarez
29P/Schwassmann-Wachmann	2020 08 26.78	xS	13.5	AQ	40.0L	4 182	1 2		ICQ XX WYA	Christopher Wyatt
29	2020 08 25.01	S	10.8	TK	20.3T10	100	5 2		ICQ XX GON05	J. J. Gonzalez Suarez
29	2020 08 24.73	xS	13.0	AQ	25.0L	5 125	1.2 2/		ICQ XX WYA	Christopher Wyatt
2P/Encke	2020 08 05.36	xS	10.5	TK	25.0L	5 40	6.5 2/		ICQ XX WYA	Christopher Wyatt

Images Contributed to the ALPO Comet Section From the Previous Month

2P/Encke



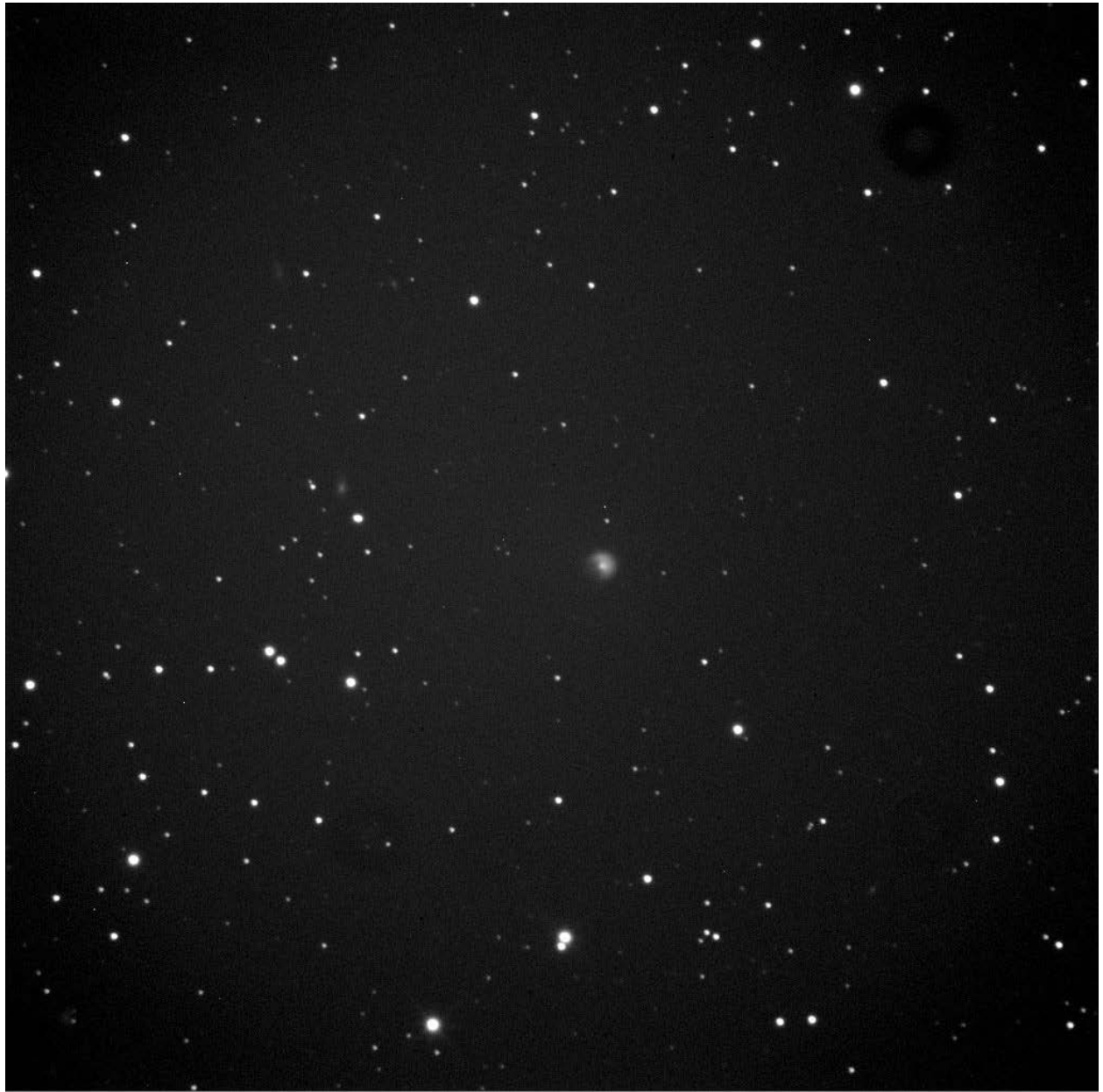
0351-0355UT, 17x15s, enlarged 2X, FOV 1.3x1.2 deg, alt 6 deg
2P/Encke, m=12.7, 2020/08/10

0336-0342UT, 5x60s, FOV 2.4x2.3 deg, alt 9 deg, 13h31m45s -25d39'38"
1" Refractor f/4 ST-402ME 18.3"/pixel Mike Olason, Tucson Arizona



2P/Encke, m=8.9, 2020/07/26 0313UT 11h13m24s -10d01'28", 3xRGB 5s+10s+15s each, FOV 3.9x2.6 deg, altitude 8 deg
1" Refractor f/4 ST-402ME 18.3"/pixel Twilight+Clouds Mike Olason, Tucson Arizona

29P/Schwassmann-Wachmann



Thomas G. Cupillari Observatory - I17
Fleetville, PA USA
RCOptics 20 inch (0.5 m) f/8.1
SBIG STL-1001E Scale 1.22"/pixel FOV 20.8 x 20.8

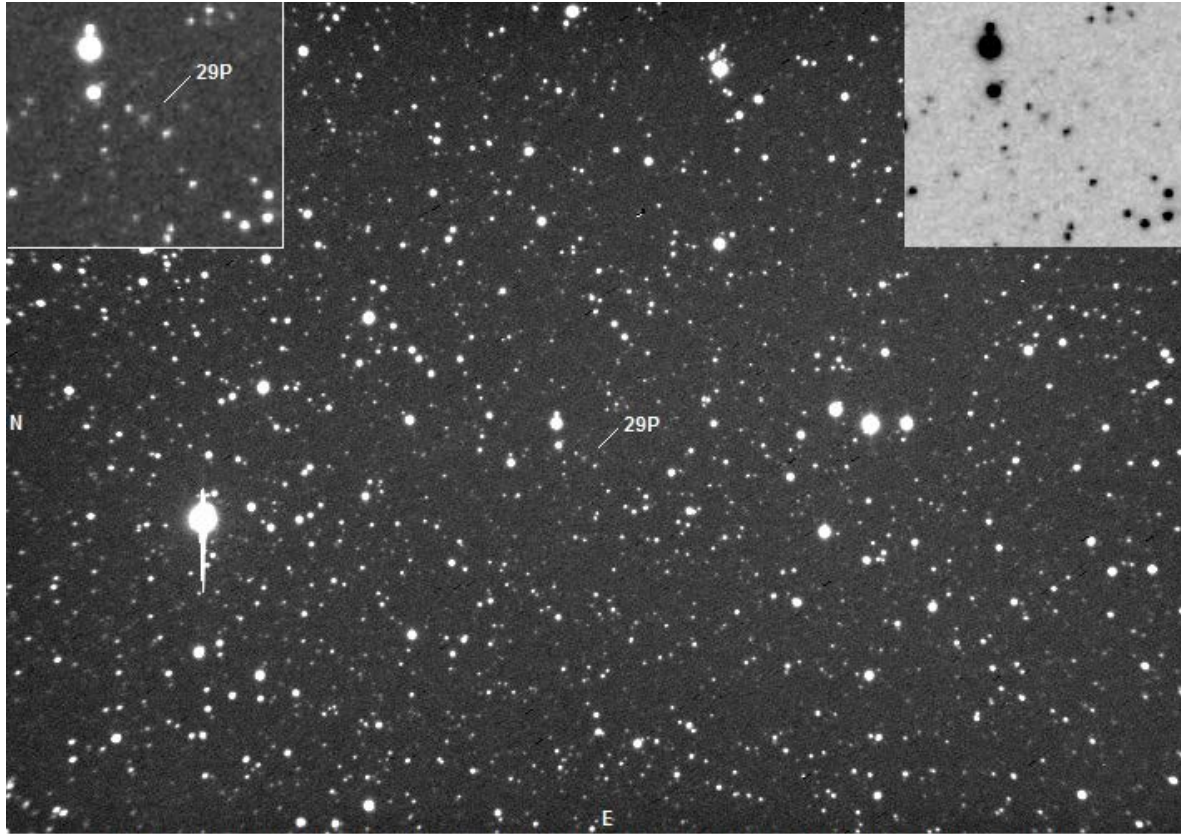
29P/Schwassmann-Wachmann

C2020 08 01.31721 02 47 32.35 +25 49 35.4 I17
Aug 01, 2020 7:36 UT

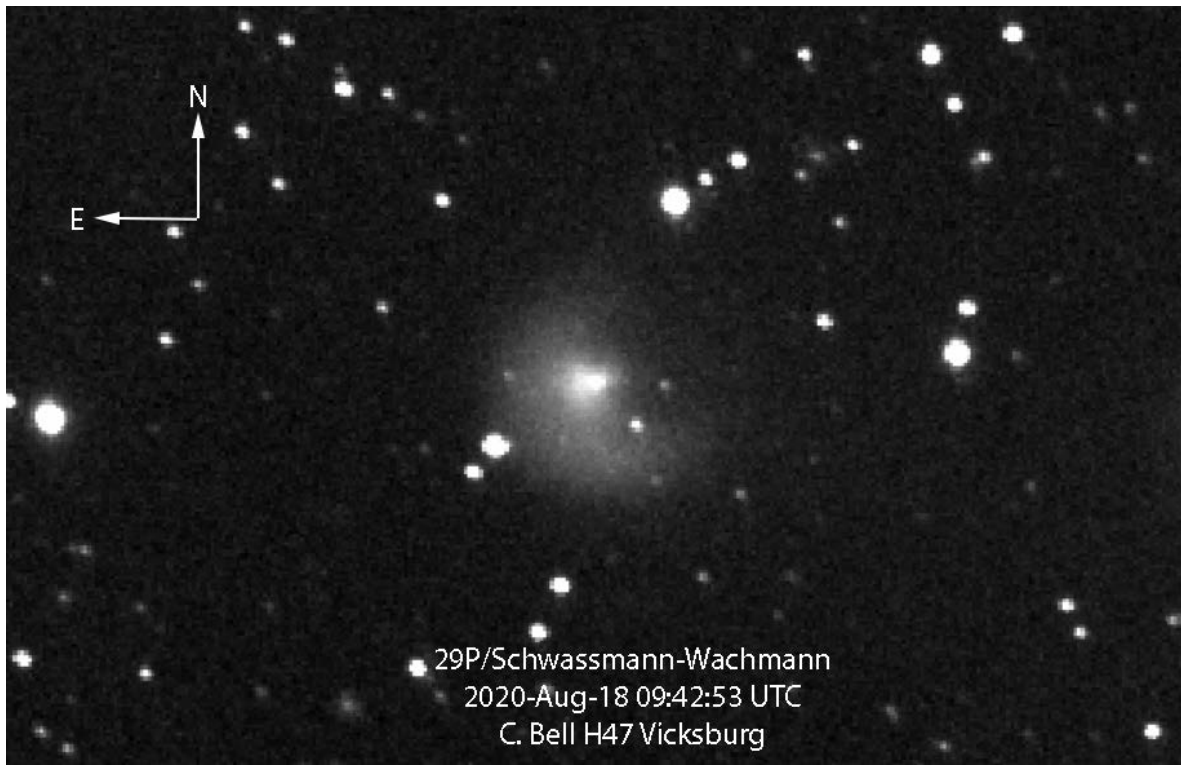
1 x 120 seconds

John D Sabia



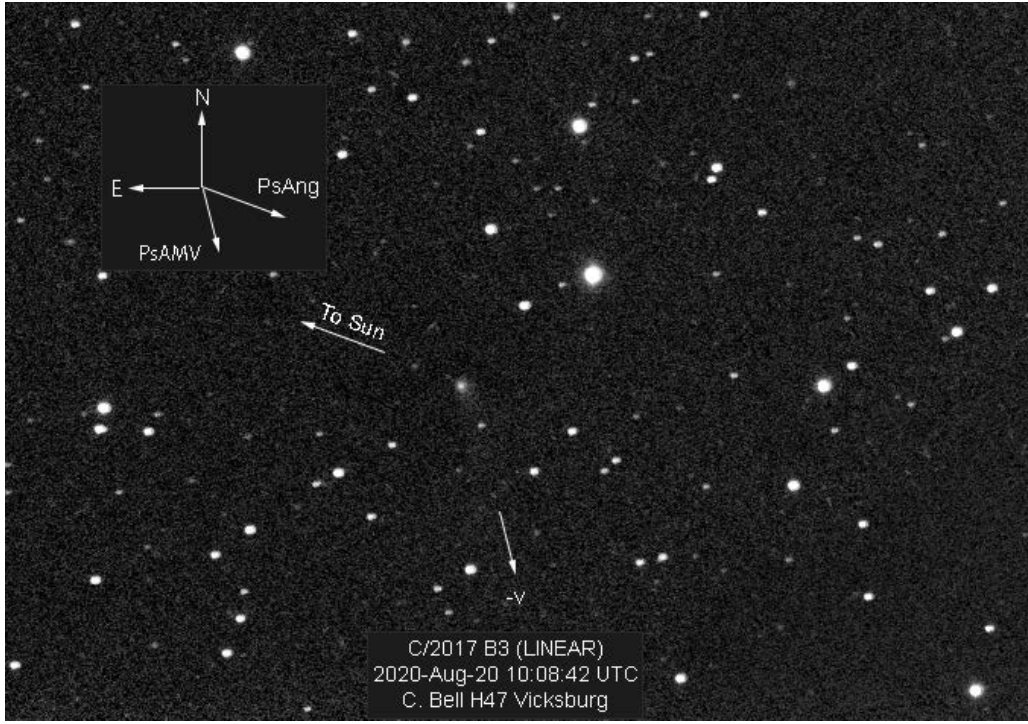


29P/Schwassmann-Wachmann, m=12.7, 2020/08/06 0809-0819UT, 5x120s, FOV 3.6x2.5 degrees, insets 2x
1" Refractor f/4 ST-402ME 18.3"/pixel Mike Olason, Tucson Arizona



29P/Schwassmann-Wachmann
2020-Aug-18 09:42:53 UTC
C. Bell H47 Vicksburg

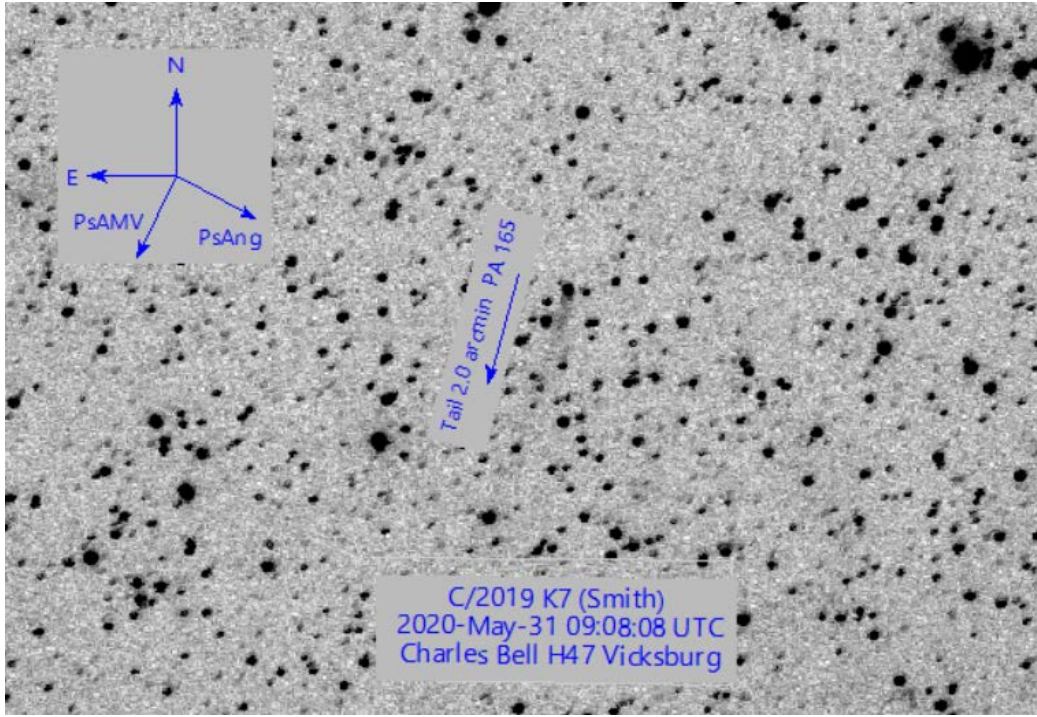
C/2017 B3 (LINEAR)



C/2017 T2 (PANSTARRS)



C/2019 K7 (Smith)



C/2020 F3 (NEOWISE)



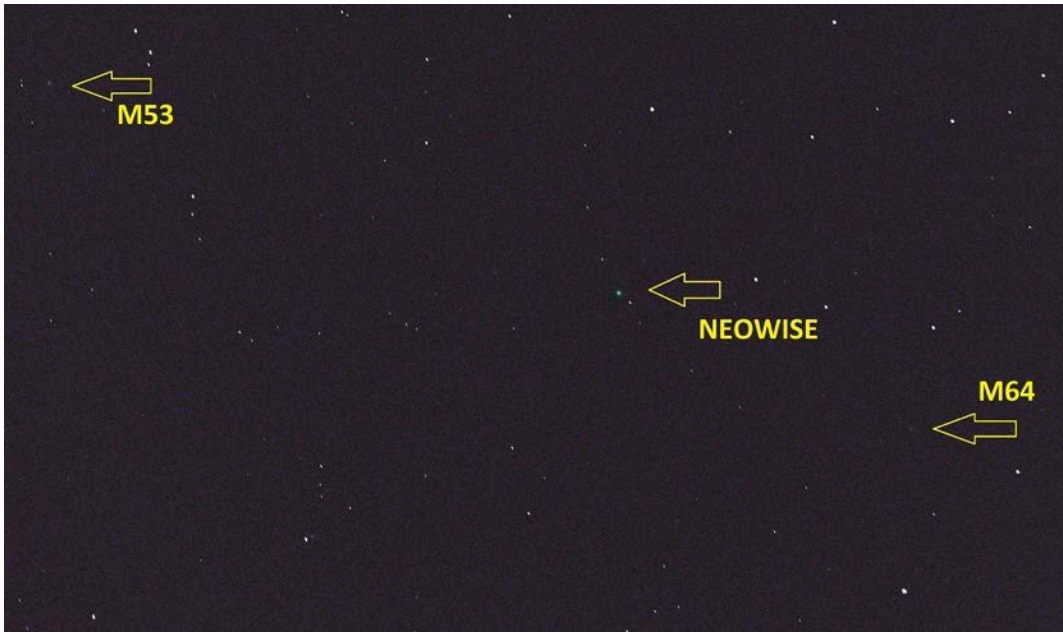
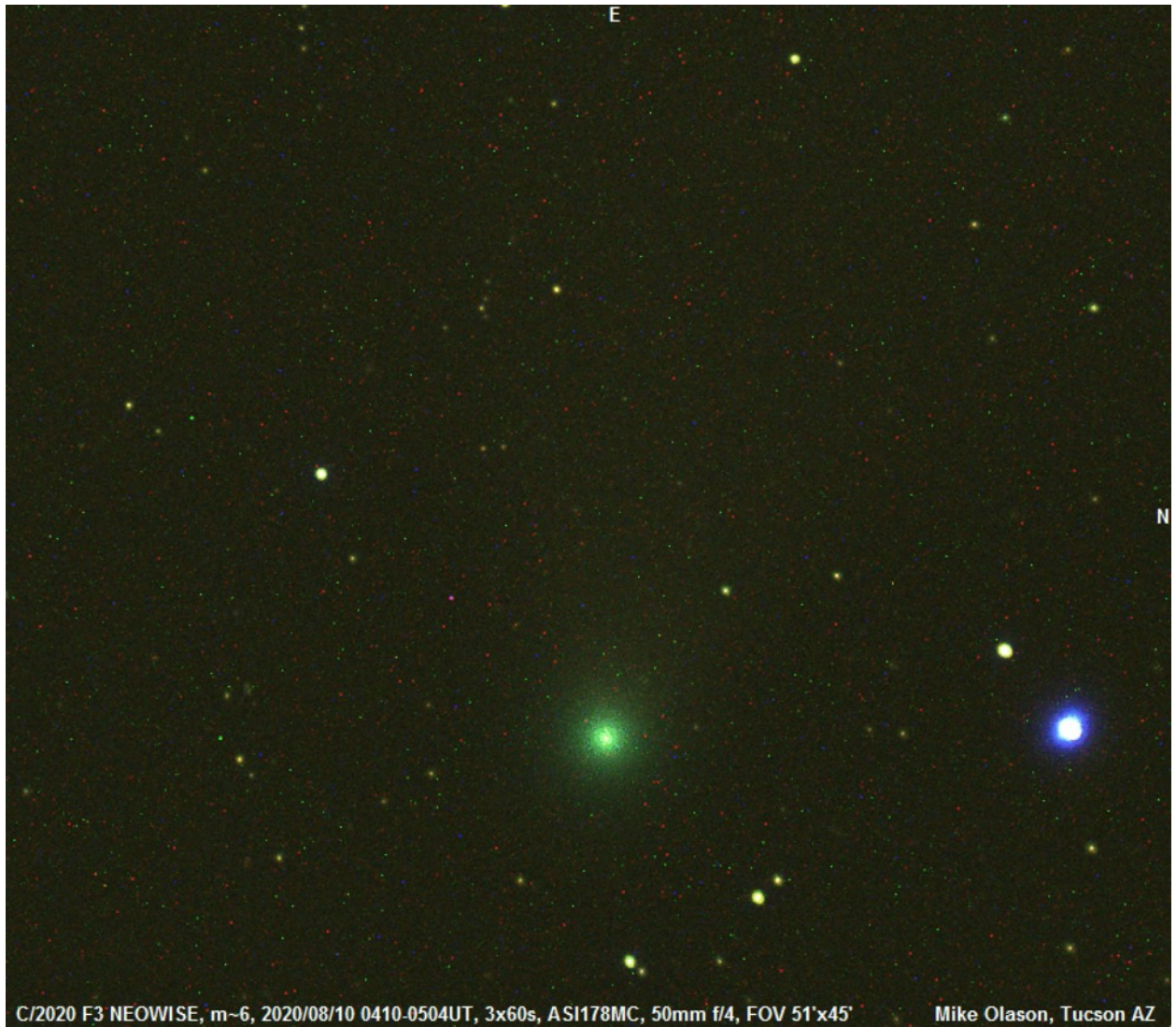
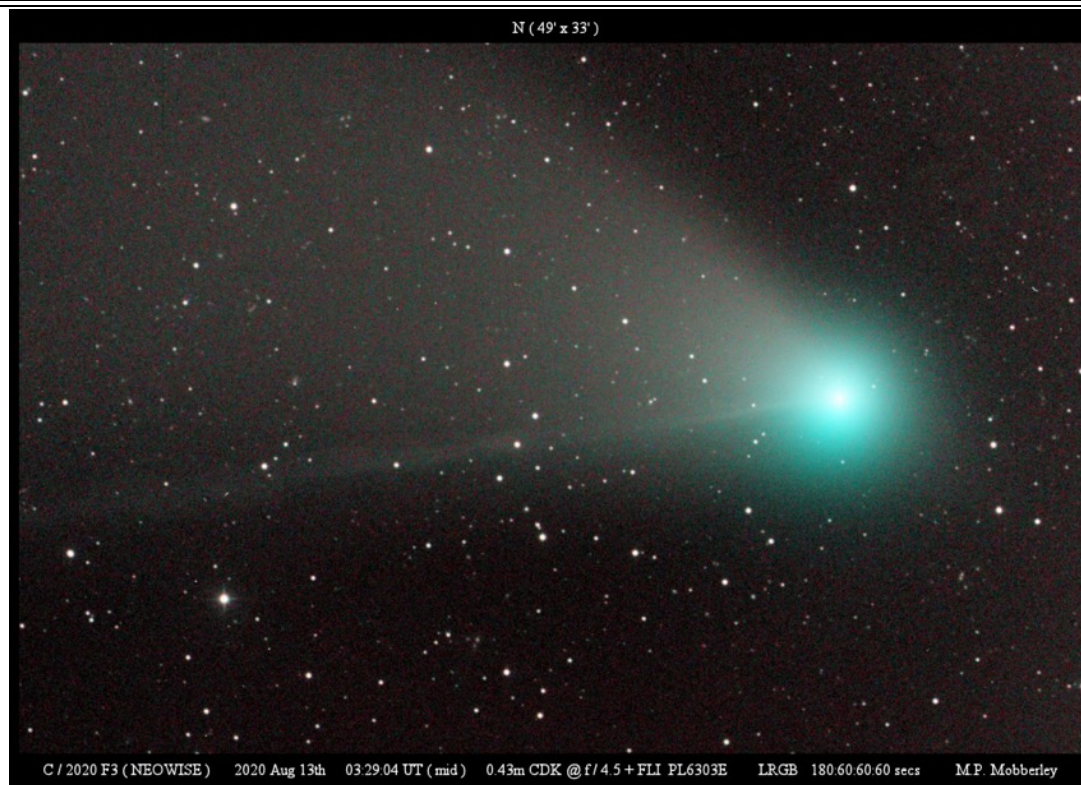
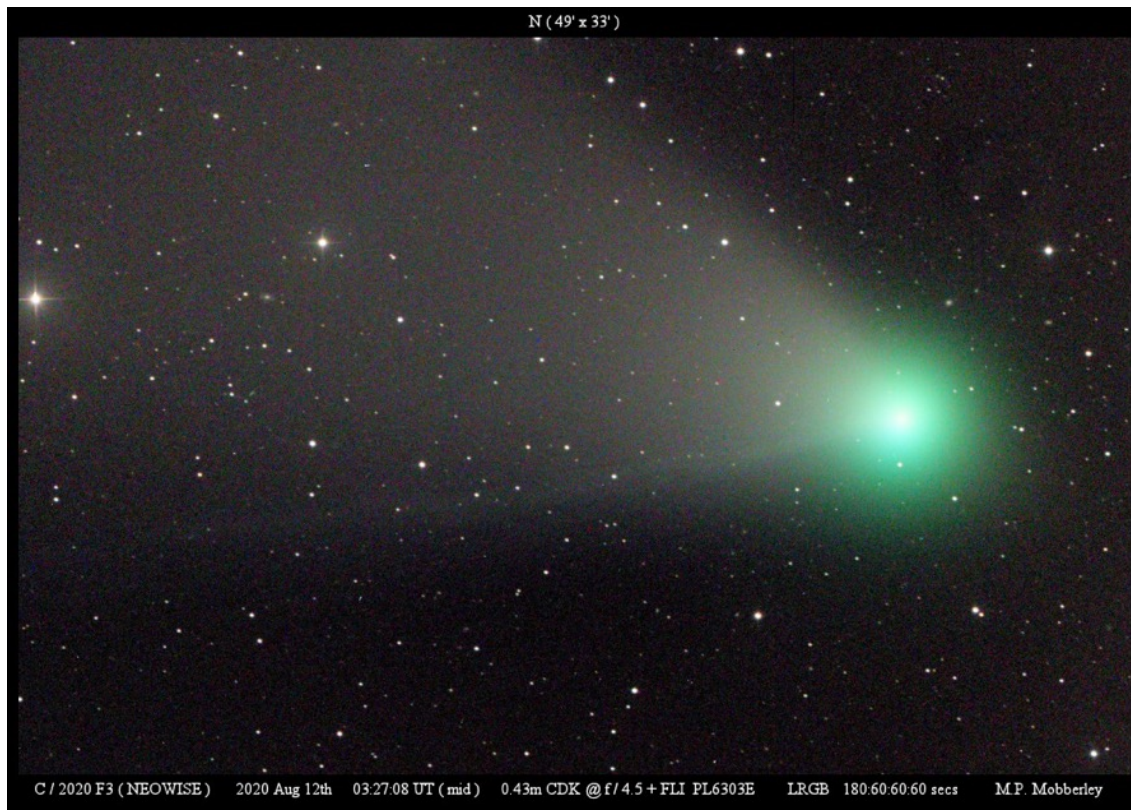
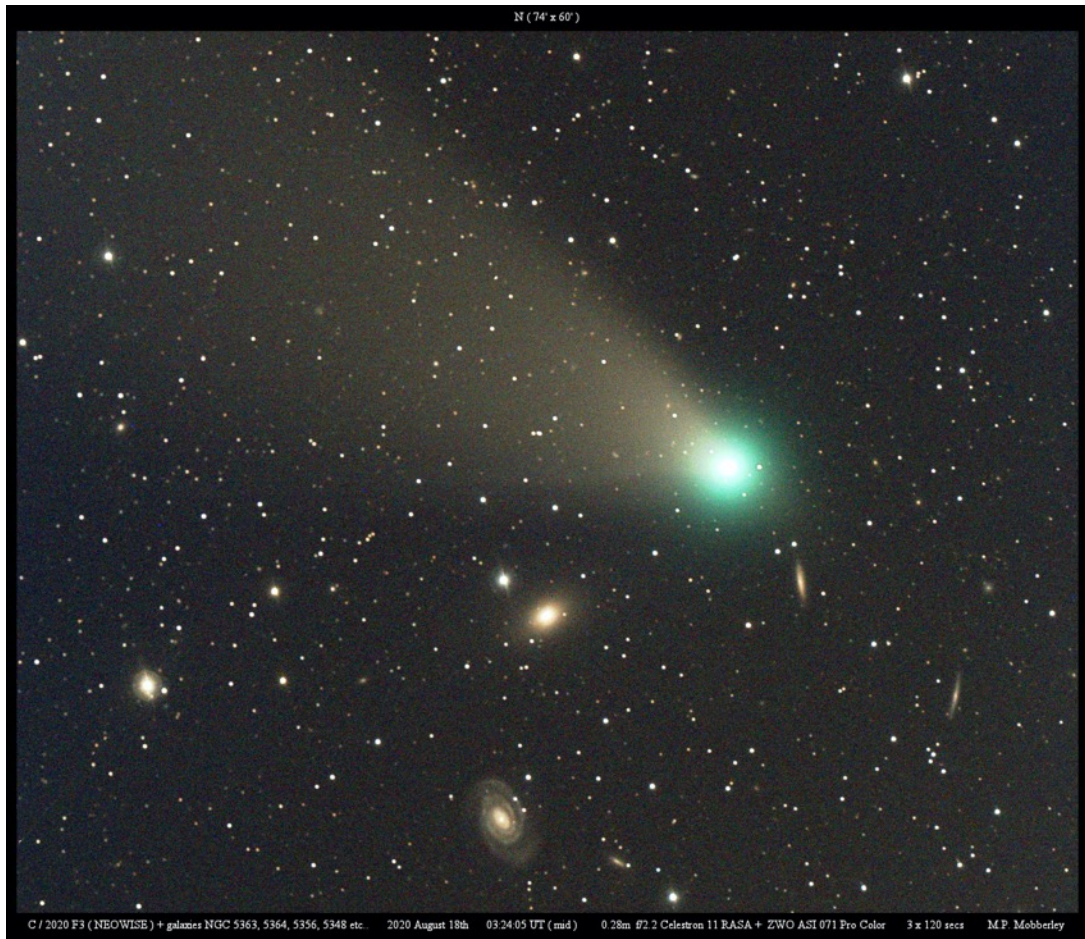


Image from August 5 by Mike Napper









C/2020 Q1 (Borisov)

