The NexStar 50 Lunar Observing Club List

http://www.nexstarsite.com/nexstar50club.htm

1. The NexStar50 Lunar Observing Club is 50 of the best features to be found on our Moon.
2. Two Levels of Observing Award are available:
   - NexStar50 Club Level – attained by observing 40 of the 50 NexStar50 objects.
   - NexStar50 Expert Level – attained by observing all 50 of the NexStar50 objects
3. All objects must be observed with a Celestron NexStar, CPC, CGE or AS-GT telescope. This includes any future Celestron models with NexStar hand controls. More than one NexStar telescope may be used to complete the challenge, and alternate optical tubes are acceptable.
4. The objects must be observed within a 24 month period for the Club Level. For those attaining the Expert Level an additional 12 months for those objects is allowed.
5. Observations must be on or after the official start date of the Club - 23 December 2001.
6. All those who attain the award will receive a certificate and their names will be posted on the NexStar 50 Club web site: http://www.nexstarsite.com/nexstar50club.htm
7. To allow other NexStar owner to learn from your observing experience, an observing log should be maintained and submitted along with your request for the award. Your log will be posted along with your name in the list of those who have attained the award. The template for the observing log is available on the NexStar 50 Club web site: http://www.nexstarsite.com/nexstar50rules.htm
8. The NexStar Club administrators can be contacted at swanson.michael@usa.net.

Lunar information derived from several sources (see "Credits" at bottom) - but special thanks to Kevin Clarke and his InConstant Moon web page which was used for the "Best Viewing Days" suggestions and feature dimensions.

Heading descriptions and appropriate links are found at the bottom of the list.

#	Best Viewing Days New to Full	Best Viewing Days Full to New	Feature	Feature Type	Dia/Dep/Class or Length/Width or Area/Height	Rukl Area	Inconstant Moon	Lat	Long	Comments
1	7	21	Albategnius	Crater	81/14500/5	44	E4	12S	4E	Ring mountain 4500' off-center peak - Old with subsequent impacts
2	7	-	Alpine Valley	Valley	110/1-13	4	B4	48N	3E	Official name: Vallis Alpes - Flooded rift or oblique impact?
3	7	22	Alps	Mtn Range	150x350/12000	12	B4	47N	1W	Between Mare Grigoris and Mare Imbrium
4	5	20	Rupes Altai	Fault	300/2	57	F5	25S	25E	Arc between Piccolomini and Mare Tranquilitatis
5	8	21	Apennines	Mtn Range	450 mile chain	22	C4	20N	0	Along south-east edge of Mare Imbrium - rugged and spectacular
6	8	22	Archimedes	Crater	51/7000/5	22	C3	30N	4W	Large flooded crater with smooth floor
7	11	25	Aristarchus	Crater	25/12000/1	18	C2	24N	47W	Extremely Young - brightest feature with albedo of .18
8	14	27	Bailly	Crater	200/140005	71	H2	67S	69W	Largest nearside crater - on limb at SSW

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9	12	26	Billy	Crater	30/4000/5	40	E1	14S	50W	Smooth floor and one of the darkest parts of the moon
10	7	22	Cassini	Crater	40/11500/2	12	B4	40N	4E	Odd looking flooded crater with two prominent interior craterlets
11	9	23	Clavius	Crater	162/16000/2	72	H3	59S	14W	Walled plain - try to count 6 craters in an arch on the floor
12	9	23	Copernicus	Crater	60/12500/1	31	D3	10N	20W	Ring mountain with 2000' multiple central peaks and terraced walls
13	-	20	Dionysius	Crater	12/8500/1	35	D3	3N	18E	Young and extremely bright
14	-	24	Euclides (Euclid),	Crater	8/4500/1	41	E2	7S	30W	Very bright try to see the floor
15	3	-	Furnerius	Crater	81/11000/3	69	G6	36S	61E	Walled plain with Furnerius "A" firmly planted on the wall
16	11	25	Gassendi	Crater	70/6500/5	52	F2	18S	40W	Walled plain with partially convoluted floor
17	Unviewable from Earth - skip this.		Giordano Bruno	Crater	12/??/1	16	B6	37N	83E	Extremely recent crater with documented impact - East of Gauss
18	13	25	Grimaldi	Crater	145/10500/5	39	E1	6S	68W	Walled plain with dark floor
19	-	24	Hainzel	Crater	58/10500/4	63	G2	41S	34W	Double crater with possibly the best example of wall terracing
20	-	18	Hercules	Crater	45/12500/1	14	B5	47N	39E	Isolated crater flooded with lava
21	-	25	John Herschel	Crater	105/5600/5	2	A3	62N	42W	Extremely old, disintegrated wall plain
22	8	-	Hesiodus Sunrise Ray	Occurrence		54	F3	29S	16W	Gap in wall casts shadow across floor at sunrise
23	11	25	Kepler	Crater	20/7500/1	30	D2	8N	38W	Extensive ray system
24	7	21	Linne	Crater	1/1500/1	23	C4	28N	12E	Young, with very bright halo of ejecta
25	7	21	Manilius	Crater	25/9500/1	23	D4	15N	9E	Bright crater viewed at angle or on full moon
26	6	21	Maurolycus	Crater	73/16500/2	66	G4	42S	14E	Briefly shines even brighter than Tycho
27	6	20	Menelaus	Crater	19/8500/1	23	C4	16N	16E	At full moon one of the brightest points
28	-	18	Messier A	Crater	2/1700/2	48	E6	2S	48E	Two overlapping craters. A pair of long rays extend westward from it, giving it the appearance of a comet.
29	2	16	Petavius	Crater	110/14000/5	59	F6	25S	60E	Massive cluster of central peaks rising far above the floor
30	5	19	Piccolomini	Crater	54/12000/1	58	F5	30S	32E	It has a great name and wall is highly terraced and pleasantly even

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31	8	23	Pico	Mountain	8000	11	B3	46N	9W	Isolated mtn, massive size casts long shadow on right viewing days
32	8	23	Plato	Crater	67/8000/5	3	A3	52N	9W	Very dark basalt floor - how many craters can you count on the floor?
33	6	20	Plinius (Pliny)	Crater	27/10500/1	24	C5	17N	24E	Bright crater against darkness at junction of M. Tranquilitatis & M. Serenitatis
34	5	20	Posidonius	Crater	61/8500/5	14	B5	32N	30E	Look for riles on the floor & double wall - how did they form?
35	-	18	Proclus	Crater	18/12000/1	26	C6	16N	47E	Extensive white area around this young crater
36	4	-	Pyrenees Mountains	Mtn Range	165x45/11000	48	E5	12S	41E	Between Mare Fecunditatis and Mare Nectaris
37	13	27	Pythagoras	Crater	90/16500/1	2	A2	63N	63W	Near northwestern cusp, prominent feature showing contrast
38	9	-	Pytheas	Crater	15/7000/1	20	C3	21N	21W	Very bright and stands out well against it's dark surroundings
39	13	-	Reiner Gamma	Discolor	50mi Dia	28	D1	8N	59W	Unique feature with no detectable relief
40	9	-	Reinhold	Crater	28/9000/1	31	D2	3N	23W	An amazing 2-step terraced wall, with a ghost crater right next to it.
41	6	-	Rima Ariadaeus	Fault	137/2.5	33/34	D4	8N	12E	Resembles a canal connecting Mare Tranquillitatis and Mare Vaporum.
42	4	-	Rupes Cauchy	Fault	75 mi long	36	D5	9N	38E	A rille higher on one side - also see Rimae Cauchy and Cauchy crater
43	23	23	Rupes Recta	Fault	75/1200	54	F3	8W	22S	AKA Straight Wall - a slope rather than wall with max incline of 41°
44	11	25	Schiller	Crater	48x113/12500	71	H2	52S	39W	Most elongated crater on face of moon - 2.5 times longer than wide
45	7	-	Sinus Medii	Bay	200x100	44	D4	2N	2E	Bay at the centre of the lunar disc. Contains selenographic latitude 0 and longitude 0
46	5	20	Theophilus	Crater	65/22500/1	46	E5	11S	26E	Ring mountain - look for older sister Cyrillius and still older Catharina
47	8	23	Timocharis	Crater	22/9550/1	21	C3	28N	12W	Ejecta shows brightly against dark backdrop

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48	8	23	Tycho	Crater	56/14000/1	64	G3	43S	11W	Ring mountain with 5000' central peak and immense ray system
49	12	-	Vallis Schroteri	Valley	124/6	18	C1	26N	51W	Crescent shaped distinctive valley
50	11	25	Wargentin	Crater	59/500/5	70	G2	50S	60W	Circular, floor raised almost to top of perimeter wall aka called "Thin Cheese" due to resemblance to a camembert

Header Explanations

Best Viewing Day - Suggested best viewing days from Kevin Clarke (InConstant Moon - http://www.inconstantmoon.com/inconstant.htm).

Dimensions - Dia/Dep/Class = Craters (Diameter, Depth and Class) "Class" = 1-New to 5-Old
Length/Width = Valleys, Riles, Faults, Scarps
Area/Height = Mountains

Rukl Area - Refers to feature's area designation on "Hitchhiker's Guide to the Moon" web page (http://www.shallowsky.com/moon/hitchhiker.html)

InConstant Moon - Refers to the chart to find this feature in the Selenographia section of the web site www.inconstantmoon.com

Lat and Long - Based upon a lunar near side quadrant system (90° at the end of the 4 axis)

Credits

InConstant Moon	Kevin Clarke	http://www.inconstantmoon.com/inconstant.htm
The Shallow Sky	Akanna Peck	http://www.shallowsky.com
Hitchhikers Guide to the Moon	Akanna Peck	http://www.shallowsky.com/moon/hitchhiker.html
Digital Lunar Orbiter Atlas of the Moon	Jeff Gillis	http://www.lpi.usra.edu/research/lunar_orbiter/
Amateur Astronomer	Antonin Rukl	
Backyard Astronomy	Burnham, Dyer, Garfinkle, George, Kanipe and Levy	
The Cambridge Star Atlas	Wil Tirion	