

ESP 2009 - Texas Hash Observing List

Class	Primary ID	Alternate ID	Con	RA (Ap)	Dec (Ap)	Mag	Size	SBr	Transit	Observed
Gal	NGC 5907	Splinter Galaxy	Dra	15h16m07.7s	+56°17'39"	11.1	11.0'x 1.4'	22.2	3:25 PM	
PNe	NGC 6804	PN G045.7-04.5	Aql	19h32m04.1s	+09°14'57"	12.4	1.1'	21.1	7:41 PM	
PNe	NGC 6818	Little Gem	Sgr	19h44m31.9s	-14°07'45"	10	22"	16.4	7:53 PM	
PNe	NGC 6826	Blinking Planetary	Cyg	19h45m04.4s	+50°33'15"	8.8	27"	15.7	7:54 PM	
Open	NGC 6939	Collinder 423	Cep	20h31m42.3s	+60°42'02"	10.1	10.0'		8:40 PM	
Gal	NGC 6946	Arp 29	Cyg	20h35m05.7s	+60°11'36"	9.8	10.5'x 10.0'	23	8:43 PM	
PNe	NGC 7008	PN G093.4+05.4	Cyg	21h00m50.6s	+54°35'15"	12	1.4'	21.4	9:09 PM	
Glob	NGC 7006		Del	21h01m57.6s	+16°13'51"	10.6	3.6'		9:10 PM	
PNe	NGC 7009	Saturn Nebula	Aqr	21h04m44.2s	-11°19'22"	8.3	28"	15.3	9:13 PM	
PNe	NGC 7026	Cheeseburger Neb	Cyg	21h06m39.4s	+47°53'47"	12	25"	18.7	9:15 PM	
Gal	NGC 7331	MCG 6-49-45	Peg	22h37m32.9s	+34°28'20"	10.2	9.1'x 3.4'	22.1	10:46 PM	
Gal	NGC 7332	MCG 4-53-8	Peg	22h37m54.5s	+23°51'13"	12	3.2'x 0.7'	21	10:46 PM	
Open	NGC 7789	OCL 269	Cas	23h57m56.4s	+56°46'03"	7.5	25.0'		12:06 AM	
PNe	NGC 40	PN G120.0+09.8	Cep	00h13m37.5s	+72°34'50"	10.7	1.0'	19.3	12:21 AM	
Gal	NGC 185	MCG 8-2-10	Cas	00h39m33.0s	+48°23'43"	10.2	10.7'x 8.9'	23.3	12:47 AM	
PNe	NGC 246	PN G118.8-74.7	Cet	00h47m35.1s	-11°48'54"	10.4	4.0'	22	12:55 AM	
Gal	NGC 247	MCG -4-3-5	Cet	00h47m40.0s	-20°42'13"	9.7	20.0'x 5.0'	22.8	12:55 AM	
Gal	NGC 404	Mirach's Ghost	And	01h10m02.2s	+35°46'27"	11.2	4.7'	22.7	1:18 AM	
PNe	M 76	NGC 650	Per	01h43m00.0s	+51°37'40"	10.1	2.7'	20.9	1:51 AM	
Open	NGC 752	Collinder 23	And	01h58m18.5s	+37°50'09"	6.6	75.0'		2:06 AM	
Gal	NGC 891	MCG 7-5-46	And	02h23m13.2s	+42°23'36"	10.9	11.7'x 2.3'	22.6	2:31 AM	
Neb	NGC 1491	Sh 2-206	Per	04h04m07.7s	+51°20'55"		9.0'		4:11 AM	
PNe	NGC 1501	PN G144.5+06.5	Cam	04h07m53.4s	+60°56'47"	12	56"	20.5	4:15 AM	
PNe	NGC 1535	Cleopatra's Eye	Eri	04h14m45.1s	-12°42'38"	9.4	20"	15.6	4:22 AM	
Open	NGC 1746	Collinder 57	Tau	05h04m27.6s	+23°47'06"	6.1	42.0'		5:11 AM	
Open	NGC 1907	Collinder 66	Aur	05h28m46.2s	+35°19'59"	10.2	7.0'		5:36 AM	

The Texas Hash observing list contains 26 objects. To complete the list you must observe 24 of the 26 objects. All observations must be made at the Eldorado Star Party. You may use GoTo mounts or digital setting circles to locate the objects if you wish.

All objects are observable sometime between the hours of 8 PM and 2 AM during the event. After an observation has been made, enter the time and date in the far right hand column.

After completing the list, submit your observations to Bill Tschumy in order to collect your observing pin. Bill will be present on the field and in the dining hall most evenings.

Texas Hash Observing List Notes - ESP 2009 -

NGC 5907

This nearly edge-on galaxy is located 45 million light years away and has an optical diameter of 150 thousand light years. Larger scopes may show the faint dust lane along the western side. It is known as the Splinter Galaxy because of its narrow profile.

NGC 6804

This fairly bright planetary nebula has a somewhat comet-shaped head. Its asymmetry is thought to be caused by its interaction with the interstellar medium as it plows through a cloud of gas. The central star is 14th magnitude.

NGC 6818

Thought to be around 9,000 years old, this planetary nebula is about 1/2 light years in diameter. It is nicknamed the "Little Gem" and has a 15' diameter bluish disk with a slightly darker center.

NGC 6826

The famous Blinking Planetary. It lies about 3,000 light years away and has a diameter of slightly less than 1/2 light years. It is thought to be several thousand years old. The central star, at 10.7 magnitude, is one of the brightest central stars of all the planetaries known. It is nicknamed the blinking planetary because, in medium scopes, the nebula "blinks" (i.e. appears and disappears) when viewed with direct and averted vision.

NGC 6939

An old open cluster, believed to be around 2 billion years old and having a diameter of 20 light years. Using a medium to wide-field eyepiece, see if you can frame it along with the galaxy NGC 6946 which is 38' to the SE.

NGC 6946

This barred spiral galaxy is seen almost face on. It has a diameter of 60 thousand light years and lies 17 million light years from us. It is also known as the Fireworks Galaxy, presumably because of the large number of supernovae (7) that have been observed in it. It is also listed in Arp's catalog of peculiar galaxies where it is known as Arp 29.

NGC 7008

Also known as the Fetus Nebula, this planetary is just north of the double star h1606. With a distance of 3,000 light years this nebula spans about 1 light year in diameter. Its unusual shape is thought to be because its central star is a close binary.

NGC 7006

This globular cluster lies well out in the galactic halo, being 160,000 light years from us. This makes it one of the more distant globulars in our Galaxy. It has a mass of 250 thousand Suns and a diameter of 180 light years. This size ranks it as a relatively large globular cluster which is typical of those well out in the halo region.

NGC 7009

The Saturn Nebula is believed to be about 2000 years old and lies about 3000 light years away. The ring-like projections are thought to be composed of fast moving, newly ejected material. The main visible shell of the nebula is about 1/2 light year in diameter. The central star is magnitude 12.8 and should be visible in larger scopes.

NGC 7026

This compact planetary lies only 30" SW of a 10th magnitude star. It is 4500 light years away from us, in the direction of down our own spiral arm as it winds into the galactic core.

NGC 7331

A bright, elongated spiral galaxy about 50 million light years away. Larger scopes may want to look for 4 dimmer galaxies that lie about 6' to the east (NGC 7335, NGC 7336, NGC 7337 and NGC 7340).

NGC 7332

A nice (but dim) edge-on galaxy about 60 million light years away. It makes a nice pairing with NGC 7339 about 5' to the east.

NGC 7789

This very old open cluster (> 2 billion years) is believed to have 500-700 members and have a diameter of 30 light years. It lies approximately 8,000 light years away from us in the direction opposite the galactic core. It is riddled with dark lanes giving it a most interesting and spooky visual appearance.

NGC 40

Beautiful planetary nebula with a conspicuous central star. It is about 1/2 light year in diameter and is being formed by a Wolf-Rayet star (see NGC 1501). The planetary lies about 3,000 light years from us.

NGC 185

This dwarf elliptical galaxy is only 8,000 light years in optical diameter and lies relatively close (1/4 million light years) to M 31. Most elliptical galaxies consist only of very old Population II stars but studies have shown that NGC 185 has had burst of new star formation in its core in the last 100 million years.

NGC 246

This pretty planetary nebula has North and West edges more sharply defined than the South and East ones. The central star is visible at 12th magnitude along with other dimmer stars embedded (optically) in its disk.

NGC 247

This faint, elongated galaxy has a 9th magnitude star superimposed on its southern edge. It is considered a dwarf spiral galaxy, having an optical diameter of only 50,000 light years and a mass of 20 billion Suns.

NGC 404

This lenticular galaxy lies in the same field as yellowish-orange Beta Andromedae. Studies show NGC 404 lacks the halo of dark matter found surrounding most galaxies. Almost all of its mass is contained within 15,000 light years of its core. Also known as the "Page Not Found" galaxy.

M76

The only Messier object in the list. Nicknamed the "Little Dumbbell", this planetary is about 2 light years in diameter and lies 4 thousand light years from us. The two lobes are expanding bubbles inclined 75° from our line of sight with the NW lobe is pointing toward us.

NGC 752

Beautiful loose open cluster containing 60 or 70 stars visible in amateur scopes. Believed to be about 1 billion years old. It has persisted so long because of its large orbital radius around the galactic core, coming no closer than 28,000 light years to the center.

NGC 891

An edge-on needle in a nice field of stars. This galaxy is thought to be quite similar to what our's would look like if viewed edge on from 30 million light years away. Larger scopes should reveal a dust lane running down the center.

NGC 1491

This comet shaped emission nebula is made visible by the ionizing radiation from the young, 11.2 magnitude star immediately to the east (the brightest star in the vicinity). The star appears separated from the nebula because its stellar winds have cleared away a cavity surrounding it. The nebula is 12 thousand light years distant.

NGC 1501

This elliptic planetary nebula is being formed by a Wolf-Rayet star at its center. The star shines a 14.5 magnitude and should be visible at higher powers in medium to large scopes. Wolf-Rayet stars are massive, short-lived, extremely hot stars that are ejecting large amounts of material via their strong solar winds. Only about 230 of these stars are known in our Galaxy and they are prime candidates for Type Ib supernovae.

NGC 1535

A small, bright planetary nebula with an easily visible 11.6 magnitude central star. The object resides about 6,000 light years away, on the outer edge of our spiral arm and a bit below the disk.

NGC 1746

A large, loose open cluster with two concentrations that each have their own NGC numbers. NGC 1750 is the grouping to the east while NGC 1758 is to the west. Three NGCs for the price of one! It is located about 1400 light years away in our spiral arm and is believed to be approximately 150 million years old.

NGC 1907

A nice compact open cluster about 6000 light years away in a direction directly opposite the galactic center. It is about 10 light years in diameter. Contrast NGC 1907 with M38 to the North. The two clusters are separated by about 40 light years and are believed to have formed out of the same molecular cloud.