
east
west
celestial equator
ecliptic
ecliptic

1
00:00:09,549 --> 00:00:06,230
what's up for July use Saturn is your

2
00:00:11,959 --> 00:00:09,559
guide to a tour of the summer Milky Way

3
00:00:14,299 --> 00:00:11,969
hello and welcome I'm Jane Houston Jones

4
00:00:18,230 --> 00:00:14,309
from NASA's Jet Propulsion Laboratory in

5
00:00:20,660 --> 00:00:18,240
Pasadena California Saturn continues to

6
00:00:23,269 --> 00:00:20,670
dazzle this month it's wide rings and

7
00:00:27,019 --> 00:00:23,279
golden color provide a nice contrast to

8
00:00:29,300 --> 00:00:27,029
nearby Mars and Antares below Saturn

9
00:00:31,999 --> 00:00:29,310
lies the constellation scorpius which

10
00:00:34,190 --> 00:00:32,009
really does look like a scorpion through

11
00:00:36,350 --> 00:00:34,200
binoculars or telescopes you'll be able

12
00:00:40,190 --> 00:00:36,360
to spot too pretty star clusters a

13
00:00:44,180 --> 00:00:40,200

compact or globular cluster m4 and an

14
00:00:47,209 --> 00:00:44,190
open cluster m7m 7 is known as ptolemies

15
00:00:49,819 --> 00:00:47,219
cluster it was observed and cataloged by

16
00:00:53,479 --> 00:00:49,829
Greek Egyptian astronomer Ptolemy in the

17
00:00:55,430 --> 00:00:53,489
first century climbing north you'll be

18
00:00:57,080 --> 00:00:55,440
able to spot the teapot shape which

19
00:01:00,049 --> 00:00:57,090
forms part of the constellation

20
00:01:02,389 --> 00:01:00,059
Sagittarius the center of the Milky Way

21
00:01:06,350 --> 00:01:02,399
is easy to see it looks like bright

22
00:01:08,899 --> 00:01:06,360
steam rising from the teapot spout with

23
00:01:11,270 --> 00:01:08,909
difficulty and a good star chart and a

24
00:01:14,120 --> 00:01:11,280
medium-sized telescope you can locate

25
00:01:17,780 --> 00:01:14,130
faint Pluto in the TSP adjacent to the

26
00:01:19,700 --> 00:01:17,790
teapot a binocular tour of the center

27
00:01:23,240 --> 00:01:19,710
core of the Milky Way reveals many

28
00:01:27,109 --> 00:01:23,250
beautiful summer sky objects we first

29
00:01:28,819 --> 00:01:27,119
encountered the Eagle Nebula m16 part of

30
00:01:31,580 --> 00:01:28,829
this nebula is featured in the famous

31
00:01:34,149 --> 00:01:31,590
and beautiful pillars of creation images

32
00:01:36,800 --> 00:01:34,159
taken by NASA's Hubble Space Telescope

33
00:01:39,020 --> 00:01:36,810
you'll have to stay up later to see the

34
00:01:40,880 --> 00:01:39,030
northern Milky Way constellations which

35
00:01:43,580 --> 00:01:40,890
are better placed for viewing later in

36
00:01:46,100 --> 00:01:43,590
the summer and fall Cygnus the Swan

37
00:01:49,370 --> 00:01:46,110
features the prettiest supernova remnant

38
00:01:51,770 --> 00:01:49,380

in the entire sky the veil nebula it's

39
00:01:53,859 --> 00:01:51,780
too big to fit in one eye piece view but

40
00:01:57,080 --> 00:01:53,869
luckily there are three sections of it

41
00:02:00,109 --> 00:01:57,090
look between Aquila and Cygnus to find

42
00:02:03,170 --> 00:02:00,119
three tiny constellations Dell finest

43
00:02:07,639 --> 00:02:03,180
the dolphin vulpecula the Fox and Lyra

44
00:02:09,830 --> 00:02:07,649
the lyre or harp m57 three nebula is the

45
00:02:12,530 --> 00:02:09,840
remains from a shell of ionized gas

46
00:02:13,340 --> 00:02:12,540
expelled by a red giant star into the

47
00:02:17,390 --> 00:02:13,350
surrounding

48
00:02:19,610 --> 00:02:17,400
interstellar medium it's pretty to look

49
00:02:23,720 --> 00:02:19,620
in vulpecula for the dumbbell another

50
00:02:26,450 --> 00:02:23,730
planetary nebula will end our summer

51
00:02:29,870 --> 00:02:26,460
tour with Lacerta the lizard and Draco

52
00:02:31,910 --> 00:02:29,880
the dragon Lacerta is home to a star

53
00:02:34,910 --> 00:02:31,920
with an extrasolar planet in its orbit

54
00:02:37,250 --> 00:02:34,920
and Draco facing away from the center of

55
00:02:39,020 --> 00:02:37,260
our Milky Way is a treasure trove of

56
00:02:42,380 --> 00:02:39,030
distant galaxies to catch in your

57
00:02:44,660 --> 00:02:42,390
telescope you can catch up on current

58
00:02:48,560 --> 00:02:44,670
missions and space telescopes studying

59
00:02:50,990 --> 00:02:48,570
our Milky Way and Beyond at WWDC gov