TONIGHT'S SKY

July 2017

1
00:00:06,640 --> 00:00:10,180
Your guide to constellations, deep-sky objects,

2
00:00:10,180 --> 00:00:15,340
planets, and events.

3
00:00:15,340 --> 00:00:23,680
Tonight's Sky, highlights of the July Sky.

4
00:00:35,220 --> 00:00:43,100
Giant planets rule the evening skies in July.

5
00:00:43,100 --> 00:00:51,920
The solar system’s largest planet, Jupiter,
dominates the southwestern sky.

6
00:00:51,920 --> 00:00:55,020
Use a telescope to spy its cloud bands

7
00:00:55,020 --> 00:01:01,000
or perhaps even the Great Red Spot.

8
00:01:04,100 --> 00:01:06,720
The next-largest planet, Saturn,

9
00:01:06,720 --> 00:01:11,980
presides over the southern sky.

10
00:01:14,720 --> 00:01:21,340
Its splendid rings are an awe-inspiring sight.

11
00:01:41,160 --> 00:01:43,320
The summer night sky is

12
00:01:43,320 --> 00:01:49,620
filled with a treasure chest of bright jewels.

13

00:01:49,620 --> 00:01:52,660
Scorpius is a striking constellation,

14
00:01:52,660 --> 00:01:56,240
one of the few that distinctly resembles the object

15
00:01:56,240 --> 00:01:58,300
after which it was named.

16
00:01:58,300 --> 00:02:02,020
The Scorpion is easy to trace in the sky.

17
00:02:02,020 --> 00:02:05,780
Its head, curved tail, and venomous stinger

18
00:02:05,780 --> 00:02:07,360
are prominent.

19
00:02:07,360 --> 00:02:11,200
At the Scorpion’s heart lies a reddish star.

20
00:02:11,200 --> 00:02:14,240
Its color closely resembles that of Mars,

21
00:02:14,240 --> 00:02:17,340
known to the Greeks as Ares.

22
00:02:17,340 --> 00:02:20,600
Ancient Greek stargazers, contemplating these

23
00:02:20,600 --> 00:02:25,100
two crimson objects, named the star Antares,

24
00:02:25,100 --> 00:02:30,300
which means “rival of Ares.”

25
00:02:30,300 --> 00:02:33,340
A prominent and lovely globular cluster

26
00:02:33,340 --> 00:02:35,140
in small telescopes,

27
00:02:35,140 --> 00:02:40,320
M4 lies just to the right of Antares in Scorpius.

28
00:02:40,320 --> 00:02:43,800
Globular clusters are collections of hundreds of

29
00:02:43,800 --> 00:02:45,780
thousands of closely packed

30
00:02:45,780 --> 00:02:52,040
and gravitationally bound stars.

31
00:03:13,020 --> 00:03:16,720
The center of our galaxy lies in the direction of the

32
00:03:16,720 --> 00:03:21,500
great constellation Sagittarius, the Archer.

33
00:03:21,500 --> 00:03:25,520
This area of the sky overflows with stars,

34
00:03:25,520 --> 00:03:32,260
globular star clusters, and bright and dark nebulae.

35
00:03:32,260 --> 00:03:34,780
Look for Sagittarius by finding the

36
00:03:34,780 --> 00:03:38,660
group of stars commonly known as the Teapot.

37
00:03:38,660 --> 00:03:43,260
The handle, top, and spout are easy to find.

38

00:03:43,260 --> 00:03:44,840
Under dark skies,

39
00:03:44,840 --> 00:03:49,520
the Milky Way seems to rise out of the Teapot’s spout.

40
00:03:49,520 --> 00:03:52,140
Many deep-sky targets reside in

41
00:03:52,140 --> 00:03:55,800
this area of the summer night sky.

42
00:03:55,800 --> 00:03:58,700
A quick glance with binoculars reveals

43
00:03:58,700 --> 00:04:01,500
some spectacular objects.

44
00:04:01,500 --> 00:04:04,340
The Lagoon Nebula’s gas and dust

45
00:04:04,340 --> 00:04:07,940
is brilliantly illuminated by the energy of the hot,

46
00:04:07,940 --> 00:04:13,740
young stars inside it.

47
00:04:19,460 --> 00:04:21,940
In the three-lobed Trifid Nebula,

48
00:04:21,940 --> 00:04:24,720
dark dust lanes appear etched against

49
00:04:24,720 --> 00:04:30,560
the radiance of glowing gas.

50
00:04:37,520 --> 00:04:41,080
The Omega Nebula glows brightly but we cannot

51
00:04:41,080 --> 00:04:45,900
see its hottest stars, embedded deep inside.

52
00:04:45,900 --> 00:04:49,800
Infrared telescopes, peering through the gas and dust,

53
00:04:49,800 --> 00:04:55,260
can detect them.

54
00:04:55,260 --> 00:04:59,920
M22, one of the brightest globular clusters in the sky,

55
00:04:59,920 --> 00:05:02,760
is visible to the naked eye.

56
00:05:02,760 --> 00:05:05,920
It is a relatively nearby globular cluster,

57
00:05:05,920 --> 00:05:12,340
only about 10,000 light-years distant.

58
00:05:29,020 --> 00:05:30,480
Low in the east,

59
00:05:30,480 --> 00:05:36,960
Venus shines like a beacon in the pre-dawn sky.

60
00:05:41,440 --> 00:06:07,020
Try to identify its phase with the aid of a telescope.

61
00:06:07,020 --> 00:06:09,900
The annual Delta Aquarid meteor shower

62
00:06:09,900 --> 00:06:15,840
peaks on the night of July 27th to the 28th.

63

00:06:15,840 --> 00:06:19,140
Look for meteors radiating from the southeast

64
00:06:19,140 --> 00:06:21,200
after midnight.

65
00:06:21,200 --> 00:06:28,180
Expect to see 10-15 faint, yellowish meteors per hour.