1
00:00:05,150 --> 00:00:01,969
[Music]

2
00:00:07,610 --> 00:00:05,160
what's up for February the brightest

3
00:00:10,669 --> 00:00:07,620
planets converge the constellation

4
00:00:12,830 --> 00:00:10,679
auriga and two star clusters you might

5
00:00:14,930 --> 00:00:12,840
want to get serious about

6
00:00:17,269 --> 00:00:14,940
all month long you'll notice the two

7
00:00:19,189 --> 00:00:17,279
brightest planets in the sky Jupiter and

8
00:00:21,470 --> 00:00:19,199
Venus appear closer together each

9
00:00:24,170 --> 00:00:21,480
evening find them in the West in the

10
00:00:26,509 --> 00:00:24,180
hour or so after Sundown on February

11
00:00:28,670 --> 00:00:26,519
22nd the Crescent Moon sits just a

12
00:00:30,710 --> 00:00:28,680
degree apart from Jupiter with Venus

13
00:00:32,510 --> 00:00:30,720

hanging beneath them the two planets

14
00:00:35,030 --> 00:00:32,520
then continue to get closer in the sky

15
00:00:37,490 --> 00:00:35,040
over the following week culminating in a

16
00:00:39,470 --> 00:00:37,500
close conjunction on March 1st

17
00:00:42,110 --> 00:00:39,480
another nice pairing takes place on

18
00:00:43,910 --> 00:00:42,120
February 27th when the moon and Mars

19
00:00:46,069 --> 00:00:43,920
will appear less than a degree apart

20
00:00:48,650 --> 00:00:46,079
you'll find them high in the southwest

21
00:00:51,350 --> 00:00:48,660
after sunset

22
00:00:52,850 --> 00:00:51,360
the constellation origa makes for a

23
00:00:54,310 --> 00:00:52,860
worthy Target to pick out of the

24
00:00:57,229 --> 00:00:54,320
February Sky

25
00:00:59,389 --> 00:00:57,239
origa represents an ancient Chariot

26
00:01:01,850 --> 00:00:59,399
driver and it's often depicted as the

27
00:01:03,529 --> 00:01:01,860
entire person but given the outline you

28
00:01:05,210 --> 00:01:03,539
might prefer to think of it as one of a

29
00:01:08,149 --> 00:01:05,220
chariot's Wheels

30
00:01:11,450 --> 00:01:08,159
the brightest star in auriga is Capella

31
00:01:13,789 --> 00:01:11,460
now in Latin capella is a word for a

32
00:01:15,289 --> 00:01:13,799
female goat and in addition to Capella

33
00:01:18,830 --> 00:01:15,299
there are these three little stars

34
00:01:21,410 --> 00:01:18,840
nearby known as the kids as in the name

35
00:01:23,929 --> 00:01:21,420
for baby goats which is pretty fun

36
00:01:26,630 --> 00:01:23,939
opposite capella toward the south is the

37
00:01:28,789 --> 00:01:26,640
bright star elnath technically it's part

38
00:01:31,570 --> 00:01:28,799

of Taurus next door but it helps to find

39
00:01:33,890 --> 00:01:31,580
the roughly circular shape of Oregan

40
00:01:35,749 --> 00:01:33,900
appears high in the Western sky on

41
00:01:37,609 --> 00:01:35,759
February evenings and it's relatively

42
00:01:38,630 --> 00:01:37,619
easy to find thanks to Capella and

43
00:01:41,330 --> 00:01:38,640
elnath

44
00:01:43,910 --> 00:01:41,340
from Orion look northward twice the

45
00:01:46,130 --> 00:01:43,920
height of Orion to find capella then

46
00:01:47,749 --> 00:01:46,140
spot elnath on a ridah's opposite side

47
00:01:49,609 --> 00:01:47,759
and from there it's pretty easy to

48
00:01:51,410 --> 00:01:49,619
identify the other stars that round out

49
00:01:53,050 --> 00:01:51,420
the shape of the charioteer

50
00:01:56,149 --> 00:01:53,060
constellation

51
00:01:58,010 --> 00:01:56,159
all month long observers with access to

52
00:02:00,590 --> 00:01:58,020
a good pair of binoculars or a small

53
00:02:02,810 --> 00:02:00,600
telescope can hunt for two easy star

54
00:02:04,310 --> 00:02:02,820
clusters using the brightest star in the

55
00:02:08,389 --> 00:02:04,320
sky as a guidepost

56
00:02:10,669 --> 00:02:08,399
their two open star clusters m41 and m47

57
00:02:12,470 --> 00:02:10,679
they're called open because their stars

58
00:02:14,990 --> 00:02:12,480
are close together in space but in sort

59
00:02:17,330 --> 00:02:15,000
of a diffuse structure to find them

60
00:02:18,890 --> 00:02:17,340
start with brilliant Sirius which is

61
00:02:22,430 --> 00:02:18,900
easy to pick out toward the South and

62
00:02:24,530 --> 00:02:22,440
the winter night sky m41 lies just four

63
00:02:26,089 --> 00:02:24,540

degrees south of Sirius and should be

64
00:02:28,190 --> 00:02:26,099
visible in the same field of view and

65
00:02:30,650 --> 00:02:28,200
binoculars where it appears as sort of a

66
00:02:32,990 --> 00:02:30,660
faint patch of light it's about as wide

67
00:02:35,690 --> 00:02:33,000
on the sky as the full moon though in

68
00:02:38,449 --> 00:02:35,700
actual extent it's about 25 light years

69
00:02:41,690 --> 00:02:38,459
across and is located about 2 300 light

70
00:02:43,670 --> 00:02:41,700
years away from us to find m47 you can

71
00:02:45,410 --> 00:02:43,680
also start at Sirius and work your way

72
00:02:47,210 --> 00:02:45,420
over toward the East about 12 degrees

73
00:02:49,369 --> 00:02:47,220
and then a couple of degrees to the

74
00:02:51,910 --> 00:02:49,379
north it's about the same size on the

75
00:02:55,670 --> 00:02:51,920
sky as m41 but just a little brighter

76
00:02:57,410 --> 00:02:55,680
m47 lies about 1600 light years away and

77
00:02:58,910 --> 00:02:57,420
occupies a volume of space about 12

78
00:03:01,729 --> 00:02:58,920
light years across

79
00:03:03,710 --> 00:03:01,739
our own son is thought to have formed as

80
00:03:06,110 --> 00:03:03,720
part of a cluster like these

81
00:03:07,729 --> 00:03:06,120
so finding them in the February sky can

82
00:03:09,150 --> 00:03:07,739
be a pretty neat way to connect with our

83
00:03:11,270 --> 00:03:09,160
own Cosmic Origins

84
00:03:12,890 --> 00:03:11,280
[Music]

85
00:03:16,130 --> 00:03:12,900
here are the phases of the moon for

86
00:03:19,430 --> 00:03:17,809
stay up to date with all of NASA's

87
00:03:22,490 --> 00:03:19,440
missions to explore the solar system and

88
00:03:24,170 --> 00:03:22,500

Beyond at nasa.gov I'm Preston Dykes