Credit: Joel Tonyan

1
00:00:04,550 --> 00:00:02,470
[Music]

2
00:00:06,630 --> 00:00:04,560
what's up for february

3
00:00:09,030 --> 00:00:06,640
jupiter makes its exit

4
00:00:11,430 --> 00:00:09,040
venus at peak brightness and the

5
00:00:13,430 --> 00:00:11,440
star-forming cloud next door

6
00:00:15,509 --> 00:00:13,440
with the departure of saturn and venus

7
00:00:17,430 --> 00:00:15,519
over the past two months jupiter is the

8
00:00:19,590 --> 00:00:17,440
only bright planet left in our twilight

9
00:00:22,310 --> 00:00:19,600
skies in february and it's on its way

10
00:00:24,950 --> 00:00:22,320
out the giant planet stands alone low in

11
00:00:26,790 --> 00:00:24,960
the western sky after sunset in february

12
00:00:28,390 --> 00:00:26,800
by mid-month it's setting only about an

13
00:00:30,390 --> 00:00:28,400

hour after the sun

14
00:00:32,950 --> 00:00:30,400
once jupiter departs at the end of

15
00:00:35,430 --> 00:00:32,960
february the post-sunset sky will be

16
00:00:37,430 --> 00:00:35,440
essentially devoid of naked eye planets

17
00:00:39,990 --> 00:00:37,440
until august when saturn will start

18
00:00:42,229 --> 00:00:40,000
rising in the east around sunset

19
00:00:44,150 --> 00:00:42,239
there's a short period though in april

20
00:00:46,069 --> 00:00:44,160
and may when you might be able to spot

21
00:00:47,190 --> 00:00:46,079
mercury as it pops briefly above the

22
00:00:49,430 --> 00:00:47,200
horizon

23
00:00:51,990 --> 00:00:49,440
you'd have to go back four years to

24
00:00:53,830 --> 00:00:52,000
march of 2018 to find twilight skies

25
00:00:56,549 --> 00:00:53,840
with no bright planets

26
00:00:58,310 --> 00:00:56,559
so catch jupiter before it's gone and

27
00:01:00,310 --> 00:00:58,320
look for it to become a morning planet

28
00:01:02,150 --> 00:01:00,320
in april

29
00:01:03,830 --> 00:01:02,160
speaking of morning skies the planet

30
00:01:06,469 --> 00:01:03,840
venus will be at its brightest for the

31
00:01:08,950 --> 00:01:06,479
year in february around mid-month

32
00:01:10,830 --> 00:01:08,960
it rises with mars around 4am and is

33
00:01:13,190 --> 00:01:10,840
visible low in the southeast until

34
00:01:14,950 --> 00:01:13,200
sunrise venus is the brightest of all

35
00:01:16,870 --> 00:01:14,960
the planets in our solar system because

36
00:01:19,270 --> 00:01:16,880
of the highly reflective clouds that

37
00:01:21,590 --> 00:01:19,280
completely cover its globe

38
00:01:23,670 --> 00:01:21,600

but its brightness in our skies varies

39
00:01:25,590 --> 00:01:23,680
depending on how far it is from earth

40
00:01:27,670 --> 00:01:25,600
and on its phase

41
00:01:29,590 --> 00:01:27,680
turns out venus is brightest not when

42
00:01:31,749 --> 00:01:29,600
it's closest to earth but when it's

43
00:01:34,149 --> 00:01:31,759
almost at its closest and still shows us

44
00:01:36,230 --> 00:01:34,159
a large bright crescent phase

45
00:01:38,310 --> 00:01:36,240
so enjoy the crescent venus that is the

46
00:01:40,390 --> 00:01:38,320
planet at its brightest and look for

47
00:01:44,069 --> 00:01:40,400
venus to form a trio with the moon and

48
00:01:46,310 --> 00:01:44,079
mars on the morning of february 26th

49
00:01:48,230 --> 00:01:46,320
february is a perfect time to enjoy one

50
00:01:50,870 --> 00:01:48,240
of the most popular and well-studied

51
00:01:52,630 --> 00:01:50,880
sights in the night sky the great nebula

52
00:01:55,350 --> 00:01:52,640
in orion

53
00:01:57,590 --> 00:01:55,360
the orion nebula is an enormous cloud of

54
00:01:58,870 --> 00:01:57,600
gas and dust where thousands of stars

55
00:02:00,550 --> 00:01:58,880
are being born

56
00:02:02,630 --> 00:02:00,560
in fact it's the nearest large

57
00:02:05,270 --> 00:02:02,640
star-forming region to our solar system

58
00:02:07,270 --> 00:02:05,280
and around 1500 light years away

59
00:02:09,910 --> 00:02:07,280
the bright central region of the orion

60
00:02:11,750 --> 00:02:09,920
nebula is a giant cavity in the cloud

61
00:02:13,990 --> 00:02:11,760
being carved out by the intense

62
00:02:16,390 --> 00:02:14,000
ultraviolet light from a handful of

63
00:02:18,390 --> 00:02:16,400

extremely massive young stars

64
00:02:20,470 --> 00:02:18,400
finding the orion nebula is easy in

65
00:02:23,270 --> 00:02:20,480
february as the constellation orion will

66
00:02:25,190 --> 00:02:23,280
be high in the south around 8 or 9 pm

67
00:02:27,430 --> 00:02:25,200
look for the three stars of the hunter's

68
00:02:30,070 --> 00:02:27,440
belt and then find the stars that hang

69
00:02:32,150 --> 00:02:30,080
below it forming orion's sword in the

70
00:02:35,270 --> 00:02:32,160
center of this line of stars is one that

71
00:02:37,030 --> 00:02:35,280
looks kind of fuzzy that's the nebula

72
00:02:39,430 --> 00:02:37,040
it's visible to the unaided eye under

73
00:02:41,830 --> 00:02:39,440
relatively dark skies and is easily seen

74
00:02:44,150 --> 00:02:41,840
with binoculars as a faint haze

75
00:02:46,710 --> 00:02:44,160
and through a telescope it's a sight

76
00:02:48,070 --> 00:02:46,720
you'll never forget

77
00:02:51,509 --> 00:02:48,080
here are the phases of the moon for

78
00:02:54,869 --> 00:02:53,110
stay up to date with all of nasa's

79
00:02:57,670 --> 00:02:54,879
missions to explore the solar system and

80
00:02:59,270 --> 00:02:57,680
beyond at nasa.gov

81
00:03:01,190 --> 00:02:59,280
i'm preston dykes from nasa's jet

82
00:03:03,130 --> 00:03:01,200
propulsion laboratory and that's what's