
WHAT'S UP
SKYWATCHING HIGHLIGHTS
MARCH 2022
NASA

1
00:00:04,470 --> 00:00:02,629
[Music]

2
00:00:06,309 --> 00:00:04,480
what's up for march

3
00:00:08,390 --> 00:00:06,319
meet the morning planets

4
00:00:11,830 --> 00:00:08,400
the nearest star cluster

5
00:00:14,470 --> 00:00:11,840
and some do-it-yourself exoplanets

6
00:00:16,470 --> 00:00:14,480
saturn joins venus and mars this month

7
00:00:19,109 --> 00:00:16,480
in the morning sky beginning around

8
00:00:21,269 --> 00:00:19,119
march 18th or 19th early risers may

9
00:00:23,830 --> 00:00:21,279
notice saturn steadily moving toward

10
00:00:26,150 --> 00:00:23,840
mars and venus each day to form a trio

11
00:00:27,910 --> 00:00:26,160
low in the east before sunrise the

12
00:00:30,310 --> 00:00:27,920
crescent moon joins the crowd on the

13
00:00:32,310 --> 00:00:30,320

27th and 28th

14
00:00:33,990 --> 00:00:32,320
saturn and mars are headed toward a

15
00:00:36,069 --> 00:00:34,000
super close meeting at the start of

16
00:00:38,069 --> 00:00:36,079
april more about that in next month's

17
00:00:40,150 --> 00:00:38,079
video

18
00:00:41,990 --> 00:00:40,160
look high in the southwest on march

19
00:00:45,190 --> 00:00:42,000
evenings and you'll find the tall

20
00:00:47,029 --> 00:00:45,200
y-shaped constellation taurus the bull

21
00:00:49,910 --> 00:00:47,039
and at the center of taurus forming the

22
00:00:52,150 --> 00:00:49,920
bull's face is a group of stars known as

23
00:00:54,229 --> 00:00:52,160
the hyades star cluster

24
00:00:56,229 --> 00:00:54,239
it's the closest open star cluster to

25
00:00:57,270 --> 00:00:56,239
our solar system containing hundreds of

26
00:01:01,349 --> 00:00:57,280
stars

27
00:01:03,189 --> 00:01:01,359
that are close together in space and

28
00:01:04,229 --> 00:01:03,199
loosely bound together by their mutual

29
00:01:06,070 --> 00:01:04,239
gravity

30
00:01:08,230 --> 00:01:06,080
these are stars that formed together

31
00:01:09,670 --> 00:01:08,240
around the same time from the same cloud

32
00:01:12,149 --> 00:01:09,680
of dust and gas

33
00:01:14,789 --> 00:01:12,159
over time they blow away that leftover

34
00:01:16,550 --> 00:01:14,799
nebula material and drift apart

35
00:01:19,109 --> 00:01:16,560
because of this and they're open or

36
00:01:20,310 --> 00:01:19,119
diffuse structures they're called open

37
00:01:22,390 --> 00:01:20,320
clusters

38
00:01:24,310 --> 00:01:22,400

our own sun formed in a cluster like

39
00:01:27,510 --> 00:01:24,320
this and studying these structures helps

40
00:01:29,429 --> 00:01:27,520
us understand how stars form and evolve

41
00:01:32,630 --> 00:01:29,439
another well-known open cluster is the

42
00:01:34,550 --> 00:01:32,640
pleiades which is also located in taurus

43
00:01:36,950 --> 00:01:34,560
the hyades and the pleiades are actually

44
00:01:38,950 --> 00:01:36,960
about the same size at about 15 or so

45
00:01:40,950 --> 00:01:38,960
light years across but the pleiades is

46
00:01:42,870 --> 00:01:40,960
about three times farther away so it

47
00:01:44,469 --> 00:01:42,880
appears more compact

48
00:01:46,950 --> 00:01:44,479
you don't need a telescope to find the

49
00:01:48,789 --> 00:01:46,960
hyades look for this v-shaped grouping

50
00:01:51,830 --> 00:01:48,799
of stars in taurus

51
00:01:53,910 --> 00:01:51,840
use the stars of orion's belt as a handy

52
00:01:55,270 --> 00:01:53,920
pointer leading you to bright orange

53
00:01:59,510 --> 00:01:55,280
aldebaran

54
00:02:01,350 --> 00:01:59,520
star cluster it's located halfway to the

55
00:02:02,550 --> 00:02:01,360
hyades and just happens to appear in the

56
00:02:04,709 --> 00:02:02,560
foreground

57
00:02:06,630 --> 00:02:04,719
so check out the hyades in march where

58
00:02:09,109 --> 00:02:06,640
you'll see a handful of stars with the

59
00:02:11,430 --> 00:02:09,119
unaided eye and more than 100 with

60
00:02:14,309 --> 00:02:11,440
binoculars

61
00:02:16,150 --> 00:02:14,319
march skies contain several easy-to-find

62
00:02:17,750 --> 00:02:16,160
bright stars that are known to have

63
00:02:18,470 --> 00:02:17,760

planets of their own orbiting around

64
00:02:21,030 --> 00:02:18,480
them

65
00:02:22,150 --> 00:02:21,040
locate these distant suns for yourself

66
00:02:25,430 --> 00:02:22,160
and you'll know you're appearing

67
00:02:28,309 --> 00:02:25,440
directly at another planetary system

68
00:02:29,750 --> 00:02:28,319
first is epsilon taurai the right eye of

69
00:02:32,309 --> 00:02:29,760
taurus the bull

70
00:02:34,229 --> 00:02:32,319
this orange dwarf star has a gas giant

71
00:02:35,589 --> 00:02:34,239
planet around eight times the mass of

72
00:02:38,630 --> 00:02:35,599
jupiter

73
00:02:40,150 --> 00:02:38,640
next is seven canis majoris this is the

74
00:02:41,990 --> 00:02:40,160
star at the heart of the dog

75
00:02:43,750 --> 00:02:42,000
constellation that contains blazing

76
00:02:46,150 --> 00:02:43,760
bright sirius

77
00:02:48,070 --> 00:02:46,160
this star is known to have two planets a

78
00:02:49,830 --> 00:02:48,080
gas giant nearly twice the mass of

79
00:02:52,309 --> 00:02:49,840
jupiter and another just a little

80
00:02:54,790 --> 00:02:52,319
smaller than jupiter moving on we find

81
00:02:56,949 --> 00:02:54,800
tau geminorum the star at the heart of

82
00:02:58,149 --> 00:02:56,959
castor northernmost of the twins in

83
00:03:00,550 --> 00:02:58,159
gemini

84
00:03:03,110 --> 00:03:00,560
tau geminorum has a huge gas giant

85
00:03:05,110 --> 00:03:03,120
planet 20 times the mass of jupiter in

86
00:03:06,149 --> 00:03:05,120
an orbit only slightly larger than that

87
00:03:08,309 --> 00:03:06,159
of earth

88
00:03:10,949 --> 00:03:08,319

and finally wheeling around to the north

89
00:03:13,509 --> 00:03:10,959
is beta ursa minorus the brightest star

90
00:03:15,750 --> 00:03:13,519
in the bowl of the little dipper

91
00:03:17,350 --> 00:03:15,760
this star has a six jupiter mass planet

92
00:03:19,350 --> 00:03:17,360
in orbit around it

93
00:03:20,710 --> 00:03:19,360
researchers expect that most stars have

94
00:03:22,949 --> 00:03:20,720
a family of planets orbiting them

95
00:03:25,190 --> 00:03:22,959
because forming planets is a natural

96
00:03:27,110 --> 00:03:25,200
part of forming stars

97
00:03:30,949 --> 00:03:27,120
and now you know how to find a few of

98
00:03:32,390 --> 00:03:30,959
them yourself no telescope required

99
00:03:34,949 --> 00:03:32,400
here are the phases of the moon for

100
00:03:38,710 --> 00:03:36,789
stay up to date with all of nasa's

101
00:03:41,589 --> 00:03:38,720
missions to explore the solar system and

102
00:03:43,430 --> 00:03:41,599
beyond at nasa.gov i'm preston dykes