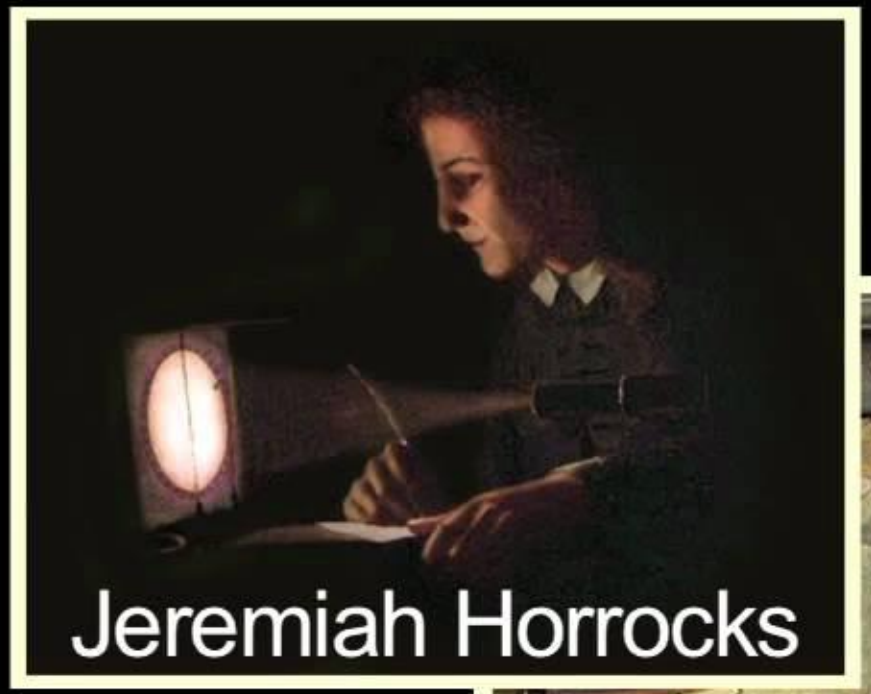
Jeremiah Horrocks


CRABTREE WATCHING THE TRANSIT OF VENUS · A · D · 1639

1
00:00:08,210 --> 00:00:04,880
what's up for June the transit of Venus

2
00:00:09,650 --> 00:00:08,220
the dark disc of Venus crosses the Sun

3
00:00:12,140 --> 00:00:09,660
on june fifth in the Western Hemisphere

4
00:00:14,720 --> 00:00:12,150
and on june sixth in the eastern

5
00:00:16,390 --> 00:00:14,730
hemisphere hello and welcome I'm Jane

6
00:00:20,060 --> 00:00:16,400
Houston Jones at NASA's Jet Propulsion

7
00:00:22,250 --> 00:00:20,070
Laboratory in Pasadena California did

8
00:00:24,500 --> 00:00:22,260
you catch the transit of Venus in 2004

9
00:00:26,509 --> 00:00:24,510
if you lived in Western North America

10
00:00:29,000 --> 00:00:26,519
you missed it because the transit had

11
00:00:31,130 --> 00:00:29,010
ended before the Sun rose Venus

12
00:00:33,170 --> 00:00:31,140
frequently passes nearly directly

13
00:00:35,389 --> 00:00:33,180

between the Earth and the Sun that's

14
00:00:37,400 --> 00:00:35,399
when Venus appears closest to the Sun

15
00:00:40,160 --> 00:00:37,410
from our vantage point on earth but

16
00:00:42,889 --> 00:00:40,170
nearly means the planet passes above or

17
00:00:45,709 --> 00:00:42,899
below the Sun not across the sun's disk

18
00:00:47,690 --> 00:00:45,719
a transit of Venus happens when Venus

19
00:00:50,869 --> 00:00:47,700
passes directly between the Earth and

20
00:00:53,779 --> 00:00:50,879
the Sun the side of Venus facing us will

21
00:00:56,209 --> 00:00:53,789
appear as a small black dot it will take

22
00:00:58,520 --> 00:00:56,219
about six hours and 40 minutes for Venus

23
00:01:01,220 --> 00:00:58,530
to pass completely across the disk of

24
00:01:02,750 --> 00:01:01,230
the Sun only six Venus transits have

25
00:01:05,359 --> 00:01:02,760
occurred since the invention of the

26
00:01:09,469 --> 00:01:05,369
telescope and no one saw the first one

27
00:01:12,050 --> 00:01:09,479
in 1631 to British astronomers Jeremiah

28
00:01:16,249 --> 00:01:12,060
Horrocks and William Crabtree saw the

29
00:01:18,410 --> 00:01:16,259
next transit in 1639 transits occur in

30
00:01:22,010 --> 00:01:18,420
pairs with more than 100 years between

31
00:01:24,289 --> 00:01:22,020
each pair for safe transit viewing in

32
00:01:26,810 --> 00:01:24,299
addition to solar telescopes and pinhole

33
00:01:28,910 --> 00:01:26,820
projection methods you can use number 14

34
00:01:31,370 --> 00:01:28,920
welder's glass from a welding supply

35
00:01:33,740 --> 00:01:31,380
store if you want to join a group of

36
00:01:36,429 --> 00:01:33,750
observers you may find one near you on

37
00:01:39,020 --> 00:01:36,439
this worldwide event location map or

38
00:01:42,170 --> 00:01:39,030

check with your local astronomy club

39
00:01:44,300 --> 00:01:42,180
science center or planetarium you can

40
00:01:46,819 --> 00:01:44,310
read about how NASA spacecraft like the

41
00:01:49,580 --> 00:01:46,829
Kepler mission use transits around

42
00:01:54,560 --> 00:01:49,590
distant stars to discover new worlds at

43
00:01:57,050 --> 00:01:54,570
solar system NASA gov / ys s4 year of

44
00:02:01,130 --> 00:01:57,060
the solar system and you can learn about

45
00:02:03,230 --> 00:02:01,140
all of NASA's missions at WWDC gov

46
00:02:04,830 --> 00:02:03,240
that's all for this month I'm Jane