



Happy Halloween

1
00:00:09,530 --> 00:00:05,920
they look like ghouls ghosts and

2
00:00:13,549 --> 00:00:09,540
long-legged piece the universe is full

3
00:00:16,369 --> 00:00:13,559
of things that go bump in the night NASA

4
00:00:18,950 --> 00:00:16,379
spacecraft have encountered all sorts of

5
00:00:22,970 --> 00:00:18,960
creepy sounds and sights traveling

6
00:00:25,790 --> 00:00:22,980
through the cosmos you can't see them

7
00:00:31,310 --> 00:00:25,800
but something's out there we gonna call

8
00:00:33,220 --> 00:00:31,320
the Galactic Ghostbuster that's what you

9
00:00:36,950 --> 00:00:33,230
might call NASA Spitzer Space Telescope

10
00:00:41,020 --> 00:00:36,960
it uses heat-seeking infrared vision to

11
00:00:43,459 --> 00:00:41,030
flush out all kinds of cosmic critters

12
00:00:45,889 --> 00:00:43,469
I'm way to think about Spitzer's it's a

13
00:00:47,990 --> 00:00:45,899

galactic Ghostbuster what it's able to

14

00:00:49,580 --> 00:00:48,000

do is it's able to peer back all the

15

00:00:53,779 --> 00:00:49,590

curtains of darkness in our own galaxy

16

00:00:55,670 --> 00:00:53,789

and reveal the hidden massive stars and

17

00:00:57,200 --> 00:00:55,680

other beasts and monsters that are

18

00:00:59,840 --> 00:00:57,210

lurking in the plane of our own galaxy

19

00:01:01,279 --> 00:00:59,850

the way we see you know invisible white

20

00:01:03,590 --> 00:01:01,289

what you're seeing is visible light

21

00:01:04,789 --> 00:01:03,600

reflected off my skin off my shirt which

22

00:01:06,890 --> 00:01:04,799

is how you get the colors you know I

23

00:01:08,660 --> 00:01:06,900

seen wearing a nice blue shirt in the

24

00:01:09,950 --> 00:01:08,670

infrared light what you're seeing is the

25

00:01:12,230 --> 00:01:09,960

thermal emission so you're seeing the

26

00:01:13,910 --> 00:01:12,240

heat radiation for me actually so I'm

27

00:01:16,700 --> 00:01:13,920

glowing in the infrared where I'm not

28

00:01:19,010 --> 00:01:16,710

glowing in the visible at the Spitzer

29

00:01:21,469 --> 00:01:19,020

Science Center he has earned a spooky

30

00:01:24,320 --> 00:01:21,479

nickname after he spotted the image of a

31

00:01:26,480 --> 00:01:24,330

screaming ghoul lurking behind blankets

32

00:01:28,990 --> 00:01:26,490

of cosmic dust thirty-nine hundred

33

00:01:32,539 --> 00:01:29,000

light-years away in the constellation

34

00:01:35,300 --> 00:01:32,549

Cygnus my first name shantz my first

35

00:01:36,890 --> 00:01:35,310

initials asked my last name scary people

36

00:01:38,330 --> 00:01:36,900

the Science Center very bright so they

37

00:01:41,120 --> 00:01:38,340

can put two and two together so they go

38

00:01:44,300 --> 00:01:41,130

s Kerry ah you must be scary he recently

39

00:01:47,510 --> 00:01:44,310

spotted a slithering dark shadow in the

40

00:01:50,679 --> 00:01:47,520

sky what we found was a snake on the

41

00:01:54,740 --> 00:01:50,689

Galactic plane in the belly of the beast

42

00:01:57,740 --> 00:01:54,750

Kerry found something eerie those yellow

43

00:02:00,050 --> 00:01:57,750

and orange spots those aren't digested

44

00:02:03,440 --> 00:02:00,060

rodents from a recent meal they're the

45

00:02:05,539 --> 00:02:03,450

beginnings of gargantuan stars the

46

00:02:08,570 --> 00:02:05,549

bright red spot in its tummy is a

47

00:02:10,820 --> 00:02:08,580

monstrous star embryo straight out of a

48

00:02:12,110 --> 00:02:10,830

sci-fi film you're going to think of it

49

00:02:13,910 --> 00:02:12,120

as something rolling

50

00:02:16,280 --> 00:02:13,920

inside of it it's more like an alien

51
00:02:17,990 --> 00:02:16,290
from one of those from one of those

52
00:02:21,110 --> 00:02:18,000
horror movies that's going to burst out

53
00:02:22,399 --> 00:02:21,120
and totally totally destroy it so it's

54
00:02:24,619 --> 00:02:22,409
going to be large starts gonna be

55
00:02:27,350 --> 00:02:24,629
something between 20 and 50 times the

56
00:02:30,199 --> 00:02:27,360
mass of our own sun these observations

57
00:02:33,589 --> 00:02:30,209
help scientists understand how monster

58
00:02:36,080 --> 00:02:33,599
stars form in outer space I think the

59
00:02:37,850 --> 00:02:36,090
galaxy is a pretty scary place if you

60
00:02:39,140 --> 00:02:37,860
think abouts also a very exciting place

61
00:02:41,180 --> 00:02:39,150
to astronomers who's going to learn

62
00:02:42,860 --> 00:02:41,190
about stars but you think about all the

63
00:02:44,839 --> 00:02:42,870

stuff that's going on out there you have

64

00:02:46,729 --> 00:02:44,849

these star it's a very violent kind of

65

00:02:48,770 --> 00:02:46,739

place and there's all sorts of surprises