

Aaru

Great Dune Fields



1
00:00:00,000 --> 00:00:10,200
(music)

2
00:00:11,200 --> 00:00:15,690
Hi there. Are you ready for an out-of-this-world vacation? it's time to

3
00:00:15,690 --> 00:00:18,180
pack your bags and join Titan Tours as

4
00:00:18,180 --> 00:00:19,920
we cruise to Saturn on the spaceship Ligeia.

5
00:00:21,200 --> 00:00:22,769
On this holiday of a

6
00:00:22,769 --> 00:00:25,289
lifetime you'll experience the wonders of the

7
00:00:25,289 --> 00:00:28,050
outer solar system first-hand and our star

8
00:00:28,050 --> 00:00:30,330
attraction Titan. If you're ready

9
00:00:30,330 --> 00:00:33,600
for an adventure climb aboard.

10
00:00:35,500 --> 00:00:39,690
Attention travelers from Earth, this is your captain speaking

11
00:00:39,690 --> 00:00:42,930
welcome aboard the spaceship Ligeia. We will

12
00:00:42,930 --> 00:00:44,910
soon be arriving at today's destination

13
00:00:44,910 --> 00:00:48,750

Saturn's giant mysterious moon - Titan. Today

14

00:00:48,750 --> 00:00:52,829

is in fact the 400th anniversary of Titan's discovery way

15

00:00:52,829 --> 00:00:56,910

back in 1655. Did you know that Titan is

16

00:00:56,910 --> 00:00:59,070

larger than both the Earth's moon and

17

00:00:59,070 --> 00:01:02,460

the planet Mercury. So hold onto your space

18

00:01:02,460 --> 00:01:04,710

helmets as you take the shuttle pod to the

19

00:01:04,710 --> 00:01:06,510

surface where your tour guides await you.

20

00:01:06,510 --> 00:01:10,500

And enjoy the wonders of International Park - Titan

21

00:01:10,500 --> 00:01:19,000

(music)

22

00:01:19,070 --> 00:01:22,610

Hi I'm Kivu. Is this your first trip to Titan?

23

00:01:22,610 --> 00:01:25,790

Great. On behalf of Titan Tours

24

00:01:25,790 --> 00:01:27,620

I'd like to welcome you to your first stop

25

00:01:27,620 --> 00:01:30,770

Titan's dry sea beds. It sure is chilly here

26

00:01:30,770 --> 00:01:31,790

isn't it

27

00:01:31,790 --> 00:01:34,220

this area was once awash with liquids

28

00:01:34,220 --> 00:01:36,020

but not water like on Earth. These

29

00:01:36,020 --> 00:01:38,360

liquids are closer to gasoline. Can you

30

00:01:38,360 --> 00:01:41,630

imagine seas of gasoline? While you're here

31

00:01:42,080 --> 00:01:43,610

be sure and take some time to stop in

32

00:01:43,610 --> 00:01:45,740

at the Huygens Museum, the location of

33

00:01:45,740 --> 00:01:49,000

the first landing site on Titan and enjoy your trip!

34

00:01:49,000 --> 00:01:57,560

(music)

35

00:01:57,560 --> 00:02:02,630

Hi I'm Aaru and here we are in Titan's

36

00:02:02,630 --> 00:02:05,360

great dune fields. These monster dunes 30

37

00:02:05,360 --> 00:02:07,130

stories tall can be hundreds of miles in

38

00:02:07,130 --> 00:02:08,660

length, putting the great dunes of

39

00:02:08,660 --> 00:02:11,150

southern Africa to shame. But these

40

00:02:11,150 --> 00:02:14,150

dunes aren't made of regular sand, the

41

00:02:14,150 --> 00:02:16,100

grains are hydrocarbon polymers like

42

00:02:16,100 --> 00:02:17,959

tiny chips of plastic rather than rock.

43

00:02:17,959 --> 00:02:21,410

If you have the time try exploring by

44

00:02:21,410 --> 00:02:23,540

dune buggy but don't go too fast or you

45

00:02:23,540 --> 00:02:25,010

may lift off when you hit a dune crest

46

00:02:25,010 --> 00:02:33,380

due to Titan's low gravity. (music)

47

00:02:37,300 --> 00:02:39,830

Hi everyone I'm Shiwanni. You are now

48

00:02:39,830 --> 00:02:42,020

standing at the summit of Titan's most

49

00:02:42,020 --> 00:02:45,050

famous mountain - Sotra. Or is it really an

50

00:02:45,050 --> 00:02:48,380

ice volcano? Some scientists say Sotra

51
00:02:48,380 --> 00:02:50,450
is the source for the important atmospheric

52
00:02:50,450 --> 00:02:53,240
gas, methane which keeps Titan warmer

53
00:02:53,240 --> 00:02:55,760
than cold space. The crater beside the

54
00:02:55,760 --> 00:02:58,220
peak may be as deep as the mountain is

55
00:02:58,220 --> 00:03:01,580
tall. At 5,000 feet Sotra isn't going

56
00:03:01,580 --> 00:03:04,400
to compare to the Earth's Himalayas or the

57
00:03:04,400 --> 00:03:06,110
volcanoes on Mars

58
00:03:06,110 --> 00:03:08,960
however its icy surface can allow for a

59
00:03:08,960 --> 00:03:12,290
descent by skis or sled. Enjoy your next

60
00:03:12,290 --> 00:03:13,820
stop where you'll take a balloon ride to

61
00:03:13,820 --> 00:03:27,470
see another of Titan's wonders. (music)

62
00:03:28,400 --> 00:03:33,530
Hi my name's Albano. Big? Big doesn't

63
00:03:33,530 --> 00:03:35,420

describe this giant crater. From my

64

00:03:35,420 --> 00:03:37,100

hot air balloon we can see the rim

65

00:03:37,100 --> 00:03:39,140

extending for hundreds of miles in both

66

00:03:39,140 --> 00:03:41,450

directions. It's big enough to enclose the

67

00:03:41,450 --> 00:03:43,910

state of Michigan. We don't exactly know

68

00:03:43,910 --> 00:03:46,670

how old this ancient impacts scar is, but

69

00:03:46,670 --> 00:03:48,830

most likely Menrva was formed when

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00:03:48,830 --> 00:03:50,660

Titan encountered a wandering comet

71

00:03:50,660 --> 00:03:52,730

at least 30 miles across and traveling

72

00:03:52,730 --> 00:03:54,710

over 20,000 miles per hour.

73

00:03:54,710 --> 00:04:05,780

I'm glad I wasn't there that day. (music)

74

00:04:05,780 --> 00:04:10,310

li I'm tour guide Leilah. This is the final

75

00:04:10,310 --> 00:04:12,170

stop on our tour of Titan and we've saved the

76

00:04:12,170 --> 00:04:13,790

best for last.

77

00:04:13,790 --> 00:04:16,040

Did you know that Titan is the only

78

00:04:16,040 --> 00:04:17,900

place in the solar system other than

79

00:04:17,900 --> 00:04:20,030

Earth where you could find liquid lakes

80

00:04:20,030 --> 00:04:23,120

on the surface? However Titan's lakes and

81

00:04:23,120 --> 00:04:25,910

seas are not water but instead liquid

82

00:04:25,910 --> 00:04:29,210

hydrocarbons; methane, ethane and propane.

83

00:04:29,210 --> 00:04:33,260

Here on Kraken Mare the largest of

84

00:04:33,260 --> 00:04:35,450

Titan's seas, the waves are almost

85

00:04:35,450 --> 00:04:38,930

non-existent so sit back relax and enjoy

86

00:04:38,930 --> 00:04:42,110

your evening cruise as the sun sets 16

87

00:04:42,110 --> 00:04:50,600

times slower than on Earth. (music)

88

00:04:50,600 --> 00:04:53,360

Attention. This is your captain again. I hope you

89

00:04:53,360 --> 00:04:55,130

enjoyed seeing the wonders of Titan

90

00:04:55,130 --> 00:04:56,060

close up.

91

00:04:56,060 --> 00:04:59,540

However much of Titan still remains

92

00:04:59,540 --> 00:05:02,060

unexplored and unknown so perhaps one day

93

00:05:02,060 --> 00:05:05,090

you'll return as a scientist to help

94

00:05:05,090 --> 00:05:08,180

unravel its mysteries. On behalf of all

95

00:05:08,180 --> 00:05:10,729

of us here today at Titan Tours