
NASA
NASA
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Launch Director, Aquarius/SAC–D

1
00:00:13,640 --> 00:00:11,660
nessa's aquarius mission will cast a

2
00:00:16,279 --> 00:00:13,650
specialized eye on the world's

3
00:00:18,680 --> 00:00:16,289
interconnected ocean basins and cease to

4
00:00:22,010 --> 00:00:18,690
give scientists an unprecedented survey

5
00:00:24,259 --> 00:00:22,020
of sea surface salinity by operating for

6
00:00:26,870 --> 00:00:24,269
three years the international mission is

7
00:00:30,019 --> 00:00:26,880
also designed to show how solemnity or

8
00:00:31,759 --> 00:00:30,029
salt content changes over time the

9
00:00:33,560 --> 00:00:31,769
mission could prove essential to

10
00:00:36,440 --> 00:00:33,570
deciphering the future of climate change

11
00:00:38,869 --> 00:00:36,450
on earth so by having salinity

12
00:00:41,330 --> 00:00:38,879
information from space or provide this

13
00:00:44,150 --> 00:00:41,340

missing link to understand how ocean

14
00:00:45,560 --> 00:00:44,160
impact the climate change the supply of

15
00:00:48,229 --> 00:00:45,570
fresh water is important for everybody

16
00:00:51,110 --> 00:00:48,239
okay variations in the global water

17
00:00:53,959 --> 00:00:51,120
cycle and a large scale mean changes in

18
00:00:56,299 --> 00:00:53,969
climate from wet to drive from moist

19
00:00:58,279 --> 00:00:56,309
years rainy years to dry seasons into

20
00:00:59,840 --> 00:00:58,289
droughts they affect agriculture the

21
00:01:02,990 --> 00:00:59,850
effect water supply for our water

22
00:01:05,119 --> 00:01:03,000
systems for for all the uses that we

23
00:01:06,980 --> 00:01:05,129
have agriculture and everything else so

24
00:01:08,690 --> 00:01:06,990
to understand climate change in the

25
00:01:10,490 --> 00:01:08,700
future it's really important to

26
00:01:12,590 --> 00:01:10,500
understand what global warming for

27
00:01:15,260 --> 00:01:12,600
example is going to do to those rainfall

28
00:01:17,660 --> 00:01:15,270
patterns and drought patterns a delta 2

29
00:01:20,060 --> 00:01:17,670
rocket stands ready on california's west

30
00:01:22,609 --> 00:01:20,070
coast to launch the spacecraft on a

31
00:01:24,620 --> 00:01:22,619
three-year mission to decipher what the

32
00:01:26,420 --> 00:01:24,630
dissolved salts in the world's ocean

33
00:01:29,630 --> 00:01:26,430
mean to our current climate and the

34
00:01:31,370 --> 00:01:29,640
future of the planet at launch the

35
00:01:35,179 --> 00:01:31,380
spacecraft will head to what's called a

36
00:01:37,340 --> 00:01:35,189
polar orbit fly some 480 miles above

37
00:01:39,950 --> 00:01:37,350
Earth crossing over the planets North

38
00:01:41,690 --> 00:01:39,960

and South Poles with each orbit from

39
00:01:43,550 --> 00:01:41,700
that vantage point the Aquarius

40
00:01:46,219 --> 00:01:43,560
instrument will get a chance to see each

41
00:01:48,620 --> 00:01:46,229
part of the world's ocean and assemble a

42
00:01:51,139 --> 00:01:48,630
complete map of sea surface salt content

43
00:01:52,969 --> 00:01:51,149
it is going to be looking at sea

44
00:01:57,410 --> 00:01:52,979
salinity so what you're doing is you're

45
00:02:00,819 --> 00:01:57,420
trying to get widespread coverages of

46
00:02:03,499 --> 00:02:00,829
the whole earth a little bit at a time

47
00:02:07,219 --> 00:02:03,509
you're doing swathes around the earth

48
00:02:09,169 --> 00:02:07,229
and so what they're trying to do is map

49
00:02:12,250 --> 00:02:09,179
the salinity so too

50
00:02:14,690 --> 00:02:12,260
get an overall map of the world's oceans

51
00:02:17,929 --> 00:02:14,700
you need this type of launch you can't

52
00:02:21,080 --> 00:02:17,939
do it from an equatorial type or from a

53
00:02:23,479 --> 00:02:21,090
Geo type of it we really need to

54
00:02:25,130 --> 00:02:23,489
understand the dynamics of this to

55
00:02:26,839 --> 00:02:25,140
really understand how changes in

56
00:02:30,020 --> 00:02:26,849
droughts and rainfall are going to

57
00:02:31,819 --> 00:02:30,030
affect our society on the land where we

58
00:02:34,339 --> 00:02:31,829
live because it's all driven by what's

59
00:02:36,500 --> 00:02:34,349
happening over the ocean NASA's launch

60
00:02:38,720 --> 00:02:36,510
services program based at Kennedy Space

61
00:02:41,809 --> 00:02:38,730
Center in Florida is managing the

62
00:02:43,759 --> 00:02:41,819
Aquarius sakdi launch traveling from

63
00:02:45,890 --> 00:02:43,769

their home base the launch team is

64
00:02:48,860 --> 00:02:45,900
responsible for the Rockets preparation

65
00:02:50,479 --> 00:02:48,870
and readiness to fly and making sure the

66
00:02:54,050 --> 00:02:50,489
spacecraft and rocket worked well

67
00:02:56,179 --> 00:02:54,060
together during a set LSK as the program

68
00:02:58,690 --> 00:02:56,189
is called will conduct the countdown and

69
00:03:01,069 --> 00:02:58,700
follow the spacecraft's climb into orbit

70
00:03:03,770 --> 00:03:01,079
the delta 2 rocket has earned a

71
00:03:06,080 --> 00:03:03,780
reputation for dependable operation has

72
00:03:07,699 --> 00:03:06,090
been a common sight for decades roaring

73
00:03:10,520 --> 00:03:07,709
off launch pads in florida and

74
00:03:15,140 --> 00:03:10,530
california the delt has been one of the

75
00:03:18,469 --> 00:03:15,150
our most reliable vehicles by far we

76
00:03:24,649 --> 00:03:18,479
have not had a single mishap or or

77
00:03:28,069 --> 00:03:24,659
failure on the Delta 2 in LSPs history

78
00:03:29,599 --> 00:03:28,079
so there have been failures some of the

79
00:03:33,920 --> 00:03:29,609
other guys have experienced sailors on

80
00:03:38,059 --> 00:03:33,930
that vehicle years ago but the vehicle

81
00:03:41,149 --> 00:03:38,069
is robust NASA is not the only player in

82
00:03:43,309 --> 00:03:41,159
the Aquarius sakdi mission while NASA's

83
00:03:45,020 --> 00:03:43,319
Jet Propulsion Laboratory and Goddard

84
00:03:47,360 --> 00:03:45,030
Space Flight Center worked on the main

85
00:03:49,699 --> 00:03:47,370
instrument Aquarius the spacecraft

86
00:03:52,819 --> 00:03:49,709
itself came from the Argentinian space

87
00:03:54,289 --> 00:03:52,829
agency known as Conan other instruments

88
00:03:56,030 --> 00:03:54,299

and elements were contributed from

89
00:03:59,539 --> 00:03:56,040
several countries including France

90
00:04:02,270 --> 00:03:59,549
Canada Italy and Brazil on an

91
00:04:04,069 --> 00:04:02,280
international mission you have those the

92
00:04:07,390 --> 00:04:04,079
challenges that you have to work them

93
00:04:11,170 --> 00:04:07,400
under an environment where there is

94
00:04:13,819 --> 00:04:11,180
significant language cultural and

95
00:04:15,090 --> 00:04:13,829
geographical differences and that

96
00:04:18,600 --> 00:04:15,100
increases the level

97
00:04:21,570 --> 00:04:18,610
of effort that it's required to get the

98
00:04:23,190 --> 00:04:21,580
issues resolved most of these missions

99
00:04:27,540 --> 00:04:23,200
that are looking down at the earth and

100
00:04:30,350 --> 00:04:27,550
studying the oceans and so forth no

101
00:04:33,060 --> 00:04:30,360
emissions example there's a lot of

102
00:04:35,040 --> 00:04:33,070
cooperative instruments on board from

103
00:04:38,190 --> 00:04:35,050
other countries so and that data shared

104
00:04:40,290 --> 00:04:38,200
readily between the countries NASA and

105
00:04:42,570 --> 00:04:40,300
Argentina have collaborated in the past

106
00:04:44,940 --> 00:04:42,580
on several missions experience that is

107
00:04:47,270 --> 00:04:44,950
being applied to this light as well well

108
00:04:52,440 --> 00:04:47,280
this is actually the fourth time that

109
00:04:56,250 --> 00:04:52,450
NASA and corn I partner on a NASA on a

110
00:04:58,590 --> 00:04:56,260
science mission I've had the opportunity

111
00:05:01,590 --> 00:04:58,600
to work on the prior mission which

112
00:05:04,140 --> 00:05:01,600
launched on a delta 2 and i truly

113
00:05:06,510 --> 00:05:04,150

enjoyed the experience of working with

114
00:05:08,700 --> 00:05:06,520
the air continues so there's an element

115
00:05:09,570 --> 00:05:08,710
of discovery here there there I can't

116
00:05:10,950 --> 00:05:09,580
tell you what we're going to find