
LINDLEY JOHNSON
NEAR-EARTH OBJECTS OBSERVATION

1
00:00:14,260 --> 00:00:11,650
this week at NASA oblem jose padilla pal

2
00:00:16,360 --> 00:00:14,270
NASA is teaming with univision

3
00:00:18,220 --> 00:00:16,370
communications incorporated the

4
00:00:20,410 --> 00:00:18,230
Department of Education and other

5
00:00:22,690 --> 00:00:20,420
organizations to support Univision's

6
00:00:25,120 --> 00:00:22,700
initiative to improve Hispanic students

7
00:00:27,190 --> 00:00:25,130
high school graduation rates prepare for

8
00:00:28,630 --> 00:00:27,200
college and encourage them to pursue

9
00:00:31,720 --> 00:00:28,640
careers in science technology

10
00:00:34,060 --> 00:00:31,730
engineering and mathematics it's a great

11
00:00:36,910 --> 00:00:34,070
extension of the efforts that we've been

12
00:00:38,590 --> 00:00:36,920
making to foster STEM education to

13
00:00:41,739 --> 00:00:38,600

support the president's educate to

14
00:00:44,529 --> 00:00:41,749
innovate program the race to the top it

15
00:00:46,540 --> 00:00:44,539
all fits together for us this program

16
00:00:48,639 --> 00:00:46,550
you know is designated primarily to

17
00:00:51,549 --> 00:00:48,649
reach kids in the in the high school

18
00:00:53,290 --> 00:00:51,559
area but I think with our summer of

19
00:00:55,869 --> 00:00:53,300
innovation that's focused on kids in

20
00:00:57,219 --> 00:00:55,879
middle school they're they're kind of a

21
00:00:59,680 --> 00:00:57,229
perfect marriage the three-year

22
00:01:02,950 --> 00:00:59,690
education initiative called s el momento

23
00:01:05,020 --> 00:01:02,960
the moment is now is aimed at parents as

24
00:01:07,030 --> 00:01:05,030
well as students it was developed in

25
00:01:08,609 --> 00:01:07,040
response to rising statistics that show

26
00:01:11,260 --> 00:01:08,619
Hispanic high school and college

27
00:01:14,350 --> 00:01:11,270
graduation rates are lower than the

28
00:01:16,389 --> 00:01:14,360
national average nASA has been a pivotal

29
00:01:18,280 --> 00:01:16,399
partner of Univision and coalition's is

30
00:01:19,749 --> 00:01:18,290
the very beginning NASA really

31
00:01:22,870 --> 00:01:19,759
understands the importance not only

32
00:01:24,819 --> 00:01:22,880
educating Hispanic youth as a driving

33
00:01:26,859 --> 00:01:24,829
force of the use of the American

34
00:01:28,630 --> 00:01:26,869
population the two is we want to put a

35
00:01:31,270 --> 00:01:28,640
particular emphasis on ensuring that

36
00:01:31,730 --> 00:01:31,280
artists man accused of science math you

37
00:01:33,230 --> 00:01:31,740
sick

38
00:01:35,690 --> 00:01:33,240

we know it's a tremendous opportunity

39
00:01:37,219 --> 00:01:35,700
for any student a particularly for our

40
00:01:39,319 --> 00:01:37,229
community and NASA has been pivotal in

41
00:01:41,149 --> 00:01:39,329
support of the five Univision's

42
00:01:43,460 --> 00:01:41,159
television and radio networks and

43
00:01:44,960 --> 00:01:43,470
Internet platforms will help Hispanic

44
00:01:46,969 --> 00:01:44,970
parents encourage their children to

45
00:01:48,859 --> 00:01:46,979
complete high school and prepare for

46
00:01:51,020 --> 00:01:48,869
college as well as provide information

47
00:01:55,730 --> 00:01:51,030
about sources of financial assistance

48
00:01:58,100 --> 00:01:55,740
for further education the geostationary

49
00:02:01,999 --> 00:01:58,110
operational environmental satellite p

50
00:02:03,830 --> 00:02:02,009
goes p is ready for launch goes p is the

51
00:02:06,020 --> 00:02:03,840
last in the goes end series of

52
00:02:08,719 --> 00:02:06,030
geostationary weather and environmental

53
00:02:10,789 --> 00:02:08,729
settlements and like its companions will

54
00:02:13,250 --> 00:02:10,799
improve overall weather service quality

55
00:02:14,870 --> 00:02:13,260
those satellites are operational

56
00:02:16,820 --> 00:02:14,880
satellites meaning they're not

57
00:02:19,220 --> 00:02:16,830
experimental they're constantly up there

58
00:02:22,670 --> 00:02:19,230
in fact we have three up there at a time

59
00:02:25,640 --> 00:02:22,680
and so we have a they're so important we

60
00:02:28,220 --> 00:02:25,650
have a spare and two active satellites

61
00:02:30,199 --> 00:02:28,230
the satellites highly stable pointing

62
00:02:32,000 --> 00:02:30,209
platform will improve the performance of

63
00:02:33,770 --> 00:02:32,010

instruments used to create daily weather

64
00:02:36,470 --> 00:02:33,780
prediction models and hurricane

65
00:02:38,840 --> 00:02:36,480
forecasting data from goes pain will

66
00:02:41,360 --> 00:02:38,850
broaden global climate change databases

67
00:02:43,220 --> 00:02:41,370
and help support civil and government

68
00:02:45,710 --> 00:02:43,230
environmental forecasting organizations

69
00:02:47,990 --> 00:02:45,720
that rely on this type of information to

70
00:02:50,479 --> 00:02:48,000
save lives a search and rescue system

71
00:02:52,400 --> 00:02:50,489
which has existed since the mid-90s is

72
00:02:56,440 --> 00:02:52,410
another valuable tool for these

73
00:03:00,110 --> 00:02:56,450
satellites it allows us to detect

74
00:03:02,360 --> 00:03:00,120
persons vehicles planes vessels in

75
00:03:04,400 --> 00:03:02,370
distress goes p is scheduled to launch

76
00:03:05,870 --> 00:03:04,410
aboard a delta 4 rocket from the cape

77
00:03:09,370 --> 00:03:05,880
canaveral air force station in florida

78
00:03:14,569 --> 00:03:09,380
no earlier than thursday march forth at

79
00:03:17,360 --> 00:03:14,579
617 p.m. eastern standard time it'll be

80
00:03:19,039 --> 00:03:17,370
a match made in the heavens a recent

81
00:03:21,500 --> 00:03:19,049
adjustment has put the stardust

82
00:03:23,270 --> 00:03:21,510
spacecraft on a path through space that

83
00:03:26,979 --> 00:03:23,280
will result in an encounter with the

84
00:03:30,500 --> 00:03:26,989
comet tempel 1 on februari 14 2011

85
00:03:32,809 --> 00:03:30,510
valentine's day and allow stardust to

86
00:03:35,599 --> 00:03:32,819
see areas of interest previously imaged

87
00:03:38,210 --> 00:03:35,609
by NASA's Deep Impact mission in 2005

88
00:03:40,099 --> 00:03:38,220

the encounter will be will be fairly

89
00:03:43,430 --> 00:03:40,109
quick it will only be a few minutes as

90
00:03:44,050 --> 00:03:43,440
as the as the spacecraft flies by the

91
00:03:49,020 --> 00:03:44,060
comet

92
00:03:53,339 --> 00:03:49,030
at least part of what we seen you before

93
00:03:56,860 --> 00:03:53,349
is is visible to the spacecraft but also

94
00:03:58,900 --> 00:03:56,870
to see some of the new area of the comet

95
00:04:00,729 --> 00:03:58,910
Stardust will not only provide high

96
00:04:03,070 --> 00:04:00,739
resolution images of the Comets surface

97
00:04:06,070 --> 00:04:03,080
but also take measurements of the

98
00:04:08,830 --> 00:04:06,080
composition size distribution and flux

99
00:04:11,250 --> 00:04:08,840
of dust admitted into the coma the hazy

100
00:04:13,720 --> 00:04:11,260
envelope surrounding the comet's nucleus

101
00:04:15,880 --> 00:04:13,730
scientists hope these new data will tell

102
00:04:18,310 --> 00:04:15,890
them more about the evolution of Jupiter

103
00:04:24,030 --> 00:04:18,320
family comets like temple one and how

104
00:04:29,290 --> 00:04:27,129
national full-scale aerodynamics complex

105
00:04:32,379 --> 00:04:29,300
wind tunnel at Ames Research Center is

106
00:04:34,060 --> 00:04:32,389
normally used to test aircraft but in

107
00:04:36,340 --> 00:04:34,070
support of the Department of Energy's

108
00:04:38,680 --> 00:04:36,350
effort to reduce the nation's dependency

109
00:04:40,870 --> 00:04:38,690
on fossil fuels the Lawrence Livermore

110
00:04:43,210 --> 00:04:40,880
National Laboratory and truck

111
00:04:45,580 --> 00:04:43,220
manufacturer navistar incorporated of

112
00:04:48,190 --> 00:04:45,590
warrenville Illinois brought this semi

113
00:04:51,040 --> 00:04:48,200

James to test devices developed by the

114
00:04:55,060 --> 00:04:51,050
Livermore Lab to reduce aerodynamic drag

115
00:04:56,800 --> 00:04:55,070
on tractor trailers tractor trailers

116
00:04:58,480 --> 00:04:56,810
account for about twelve percent of the

117
00:05:01,650 --> 00:04:58,490
United States petroleum consumption

118
00:05:04,150 --> 00:05:01,660
that's 21 million barrels per day

119
00:05:06,880 --> 00:05:04,160
Livermore Lab scientists estimate that

120
00:05:09,159 --> 00:05:06,890
aerodynamic devices placed in critical

121
00:05:11,260 --> 00:05:09,169
drag producing areas of tractor trailers

122
00:05:13,750 --> 00:05:11,270
could save America's trucking industry

123
00:05:16,540 --> 00:05:13,760
almost five billion gallons of diesel

124
00:05:20,460 --> 00:05:16,550
and fourteen point seven billion dollars

125
00:05:24,070 --> 00:05:20,470
per year despite the Wright brothers

126
00:05:26,350 --> 00:05:24,080
pioneering powered flight of 1903 the

127
00:05:28,629 --> 00:05:26,360
United States lagged behind Europe an

128
00:05:31,150 --> 00:05:28,639
airplane technology when World War one

129
00:05:33,310 --> 00:05:31,160
broke out 11 years later that's when

130
00:05:36,219 --> 00:05:33,320
congress created the national advisory

131
00:05:39,370 --> 00:05:36,229
committee for aeronautics the NACA on

132
00:05:41,409 --> 00:05:39,380
March third 1915 its mission to

133
00:05:43,930 --> 00:05:41,419
coordinate aeronautics research already

134
00:05:46,690 --> 00:05:43,940
underway in the United States however

135
00:05:49,300 --> 00:05:46,700
the NACA s mission and workforce soon

136
00:05:53,140 --> 00:05:49,310
grew to conduct its own research from

137
00:05:54,790 --> 00:05:53,150
1917 through 1958 it was responsible for

138
00:05:55,830 --> 00:05:54,800

many significant achievements in

139
00:05:59,220 --> 00:05:55,840
aviation history

140
00:06:00,990 --> 00:05:59,230
among them the construction in 1922 at

141
00:06:02,970 --> 00:06:01,000
the then named Langley Memorial

142
00:06:05,969 --> 00:06:02,980
aeronautical laboratory in Virginia of

143
00:06:08,939 --> 00:06:05,979
the variable density wind tunnel for the

144
00:06:11,490 --> 00:06:08,949
first time the NAC A's researchers could

145
00:06:14,070 --> 00:06:11,500
compress air and simulate high-altitude

146
00:06:16,230 --> 00:06:14,080
flying this provided aircraft

147
00:06:19,770 --> 00:06:16,240
manufacturers with accurate data for

148
00:06:21,870 --> 00:06:19,780
producing better aircraft the NACA also

149
00:06:24,570 --> 00:06:21,880
provided invaluable support for

150
00:06:26,550 --> 00:06:24,580
America's effort in World War two the

151
00:06:28,650 --> 00:06:26,560
addition of two new laboratories the

152
00:06:30,480 --> 00:06:28,660
Ames aeronautical laboratory at Moffett

153
00:06:32,940 --> 00:06:30,490
Field California the future Ames

154
00:06:35,159 --> 00:06:32,950
Research Center and the aircraft engine

155
00:06:37,560 --> 00:06:35,169
research laboratory in Cleveland today's

156
00:06:40,560 --> 00:06:37,570
Glenn Research Center help test and

157
00:06:45,450 --> 00:06:40,570
develop no fewer than 100 37 different

158
00:06:47,850 --> 00:06:45,460
aircraft between 1941 and 1945 the NACA

159
00:06:49,830 --> 00:06:47,860
s post-war focus was on supersonic

160
00:06:51,900 --> 00:06:49,840
flight beginning with the success of

161
00:06:55,290 --> 00:06:51,910
Chuck Yeager and the x1 flights at the

162
00:06:57,000 --> 00:06:55,300
NACA narok unit later renamed the Dryden

163
00:07:00,480 --> 00:06:57,010

Flight Research Center at edwards air

164
00:07:02,670 --> 00:07:00,490
force base california in 1958 with a

165
00:07:05,250 --> 00:07:02,680
Soviet Union rapidly developing a space

166
00:07:07,529 --> 00:07:05,260
program the NAC A's missions and

167
00:07:09,900 --> 00:07:07,539
projects were incorporated into a new

168
00:07:12,990 --> 00:07:09,910
agency responsible for not only

169
00:07:15,390 --> 00:07:13,000
aeronautical research but also civilian

170
00:07:17,820 --> 00:07:15,400
human satellite and robotic space

171
00:07:21,870 --> 00:07:17,830
programs the National Aeronautics and

172
00:07:24,510 --> 00:07:21,880
Space Administration NASA and that's