
ROCK
ROVERS
COUNCIL ROCK HIGH SCHOOL SOUTH
CRITTER CONTROL

1
00:00:07,010 --> 00:00:10,920
This Week at NASA…

2
00:00:10,920 --> 00:00:15,830
The Kennedy Space Center hosted several events
to celebrate 50 years of Americans

3
00:00:15,830 --> 00:00:17,270
in orbit.

4
00:00:17,270 --> 00:00:28,350
“Roger the clock is operating we’re on
the way – I hear you loud and clear.

5
00:00:28,350 --> 00:00:29,350
Roger we’re
programming and the roll is OK.”

6
00:00:29,350 --> 00:00:32,970
John Glenn, the first to achieve the goal,
made his three-orbit flight in Friendship

7
00:00:32,970 --> 00:00:34,890
7 on
February 20, 1962.

8
00:00:34,890 --> 00:00:38,620
“It’s been 50 years, it’s hard for me
to believe that.

9
00:00:38,620 --> 00:00:41,620
It seems like just a couple of week s
ago to me.”

10
00:00:41,620 --> 00:00:46,040
Three months later, fellow Mercury astronaut
Scott Carpenter followed Glenn with his

11
00:00:46,040 --> 00:00:50,140

flight aboard Aurora 7 on May 24, 1962.

12
00:00:50,140 --> 00:00:55,180
Glenn and Carpenter spoke to employees and
met with the media sharing stories about their

13
00:00:55,180 --> 00:00:56,180
adventures.

14
00:00:56,180 --> 00:01:01,660
The pair also participated in "On the Shoulders
of Giants," a ceremony honoring all

15
00:01:01,660 --> 00:01:04,470
who made NASA's Project Mercury possible.

16
00:01:04,470 --> 00:01:09,690
Senator Glenn also took advantage of an
opportunity to sit inside orbiter Discovery

17
00:01:09,690 --> 00:01:12,320
with Center Director Bob Cabana.

18
00:01:12,320 --> 00:01:15,160
Glenn flew
on Discovery when he returned to space in

19
00:01:15,160 --> 00:01:20,730
October 1998 as a payload specialist
aboard Discovery's STS-95 mission.

20
00:01:20,730 --> 00:01:26,430
“And liftoff of Discovery with a crew of
six astronaut heroes and one American legend.”

21
00:01:26,430 --> 00:01:34,820
“Fifty years ago today , Friendship 7 was
orbiting planet Earth and that helped in a

22

00:01:34,820 --> 00:01:37,920
big
way to pave the way for America to become

23
00:01:37,920 --> 00:01:42,640
a space power and to go to the moon and to
do the things that we're doing right now

24
00:01:42,640 --> 00:01:44,540
on the International Space Station."

25
00:01:44,540 --> 00:01:49,440
An in-flight call during the NASA Future Forum
at the Ohio State University provided

26
00:01:49,440 --> 00:01:54,211
an opportunity for The International Space
Station crew to congratulate Glenn on the

27
00:01:54,211 --> 00:01:59,880
Anniversary of his historic flight and for
the Senator, a big proponent of the ISS, to

28
00:01:59,880 --> 00:02:03,130
hear
first-hand about life onboard the orbiting

29
00:02:03,130 --> 00:02:04,130
outpost.

30
00:02:04,130 --> 00:02:07,830
"I don't know whether you know the exact
number of research experiments you have on

31
00:02:07,830 --> 00:02:11,670
board right now, do you have any idea of how
many are on board?"

32
00:02:11,670 --> 00:02:17,569
"We have well over one hundred and they

all come with an acronym that you either

33
00:02:17,569 --> 00:02:21,129
have no vowels in it, so it makes it hard
to pronounce."

34
00:02:21,129 --> 00:02:26,989
"We've got a whole ensemble of life science
experiments that basically probe the gravity

35
00:02:26,989 --> 00:02:33,709
knob for life since it evolved on Earth under
constant gravity, and now all of a sudden

36
00:02:33,709 --> 00:02:36,010
we
can change the magnitude of gravity by a factor

37
00:02:36,010 --> 00:02:37,349
of a million."

38
00:02:37,349 --> 00:02:42,239
And for what may be the first question Glenn
has been asked from space, the crew

39
00:02:42,239 --> 00:02:43,239
wanted to know …

40
00:02:43,239 --> 00:02:49,989
"Did you ever really find out what the fireflies
were on your first orbit?

41
00:02:49,989 --> 00:02:55,780
"Yeah we did, I think you know Scott Carpenter
on the second flight was able to hit the

42
00:02:55,780 --> 00:03:01,170
side of the spacecraft, the capsule and send
the whole shower of them out and scientists

43
00:03:01,170 --> 00:03:05,779
working on this, they could relate them to
the water dripping out through the heat

44
00:03:05,779 --> 00:03:06,779
exchanger.

45
00:03:06,779 --> 00:03:15,019
And then they just collected in a large cloud
around the spacecraft."

46
00:03:15,019 --> 00:03:19,920
With the 2013 budget rollout complete, NASA
Administrator Charles Bolden and

47
00:03:19,920 --> 00:03:25,779
Deputy Administrator Lori Garver are making
the rounds to NASA field centers.

48
00:03:25,779 --> 00:03:29,389
Following an All-Hands meeting to discuss
the budget with employees at The Goddard

49
00:03:29,389 --> 00:03:34,689
Space Flight Center, Bolden received a progress
update on the James Webb Space

50
00:03:34,689 --> 00:03:35,689
Telescope.

51
00:03:35,689 --> 00:03:39,659
He also met with employees at The Jet Propulsion
Laboratory.

52
00:03:39,659 --> 00:03:44,169
Garver spoke with employees at several other
centers about the 20-13 budget.

53
00:03:44,169 --> 00:03:47,139

At
Stennis Space Center she was joined by Stennis

54
00:03:47,139 --> 00:03:52,260
Deputy Director Rick Gilbrech and by
Center Director Mike Coats at the Johnson

55
00:03:52,260 --> 00:03:53,819
Space Center.

56
00:03:53,819 --> 00:03:57,620
She also toured several
facilities at Langley Research Center with

57
00:03:57,620 --> 00:03:59,530
Director Lesa Roe.

58
00:03:59,530 --> 00:04:04,340
NASA’s budget request
supports an ambitious program of space exploration

59
00:04:04,340 --> 00:04:09,069
that will build on new
technologies and proven capabilities to expand

60
00:04:09,069 --> 00:04:15,269
America’s reach into the solar system.

61
00:04:15,269 --> 00:04:20,180
Researchers from Cal-Poly State University
in San Luis Obispo, California recently

62
00:04:20,180 --> 00:04:25,810
tested a future aircraft concept model called
AMELIA – the Advanced Model for

63
00:04:25,810 --> 00:04:28,260
Extreme Lift and Improved Aeroacoustics.

64

00:04:28,260 --> 00:04:35,980
The 1/11th scale model with a 10-foot
wingspan was tested in the National Full-Scale

65
00:04:35,980 --> 00:04:40,100
Aerodynamic Complex at the Ames
Research Center.

66
00:04:40,100 --> 00:04:45,620
AMELIA is designed as an efficient, 150-passenger
airliner capable

67
00:04:45,620 --> 00:04:47,430
of short takeoffs and landings.

68
00:04:47,430 --> 00:04:51,840
“We’re hoping, targeting ‘N plus 2’,
so maybe 2020 or something like that we can

69
00:04:51,840 --> 00:04:54,470
have
the technologies needed at the readiness level

70
00:04:54,470 --> 00:04:58,850
so that industry can pick it up and maybe
put a vehicle like this on the market.”

71
00:04:58,850 --> 00:05:05,360
Testing of AMELIA was conducted for NASA’s
Fundamental Aeronautics Program,

72
00:05:05,360 --> 00:05:09,370
Educators from across the nation visited the
Johnson Space Center to fly experiments

73
00:05:09,370 --> 00:05:11,120
in microgravity.

74
00:05:11,120 --> 00:05:14,930
During the flights, a modified aircraft flew

parabolic arcs that simulate

75
00:05:14,930 --> 00:05:16,380
weightlessness.

76
00:05:16,380 --> 00:05:20,140
The opportunity was provided by three NASA
education initiatives

77
00:05:20,140 --> 00:05:26,070
designed to spark interest in science, technology,
engineering and math, or STEM.

78
00:05:26,070 --> 00:05:30,750
“The uniqueness of it is this environment
provides an amazing journey for the teachers.

79
00:05:30,750 --> 00:05:36,190
They’re taking these students on this journey
with them for the past four to five months

80
00:05:36,190 --> 00:05:37,450
and then it culminates with the flight.

81
00:05:37,450 --> 00:05:38,450
They go back and share everything that they’ve
learned and experienced with their students

82
00:05:38,450 --> 00:05:39,450
and their communities.”

83
00:05:39,450 --> 00:05:44,210
“We did three experiments all examining
the aspects of gravity and how gravity affects

84
00:05:44,210 --> 00:05:45,680
motion and so on.

85
00:05:45,680 --> 00:05:48,780

And we did these experiments in the classroom
first.

86
00:05:48,780 --> 00:05:53,780
And then we did
the experiments up on the plane and examined

87
00:05:53,780 --> 00:05:55,900
the effects in zero gravity.

88
00:05:55,900 --> 00:05:58,490
I teach juniors
and seniors and we're talking about careers

89
00:05:58,490 --> 00:06:00,020
after high school.

90
00:06:00,020 --> 00:06:03,270
This opens another door
for them and that's what it's all about

91
00:06:03,270 --> 00:06:04,600
for us."

92
00:06:04,600 --> 00:06:10,590
JSC's Education Office will host college
students on similar reduced-gravity flights

93
00:06:10,590 --> 00:06:14,140
later this year.

94
00:06:14,140 --> 00:06:19,120
New images from NASA's Lunar Reconnaissance
Orbiter spacecraft show the moon's

95
00:06:19,120 --> 00:06:24,790
crust is being stretched, forming minute valleys
in a few small areas of the lunar

96

00:06:24,790 --> 00:06:26,450
surface.

97
00:06:26,450 --> 00:06:30,860
Scientists propose this geologic activity
occurred less than 50 million years

98
00:06:30,860 --> 00:06:37,030
ago – that's recent, considering the moon
is more than 4-point-5 billion years old.

99
00:06:37,030 --> 00:06:42,500
The high-resolution images show small, narrow
trenches – typically much longer than

100
00:06:42,500 --> 00:06:44,190
they are wide.

101
00:06:44,190 --> 00:06:48,430
This indicates the lunar crust is being pulled
apart at these locations.

102
00:06:48,430 --> 00:06:53,890
LRO is managed by the Goddard Space Flight
Center.

103
00:06:53,890 --> 00:06:59,320
In February of 2011, NASA astronaut Al Drew
was floating in space, having just

104
00:06:59,320 --> 00:07:00,700
finished his first spacewalk.

105
00:07:00,700 --> 00:07:01,700
"That was awesome.

106
00:07:01,700 --> 00:07:04,940
Oh man that was great, the views were outstanding."

107

00:07:04,940 --> 00:07:09,190
Flash forward a year – Drew was back on
the ground at the Virginia Air and Space

108
00:07:09,190 --> 00:07:14,120
Center in Hampton, Virginia helping the Langley
Research Center and the community

109
00:07:14,120 --> 00:07:15,840
celebrate Black History Month.

110
00:07:15,840 --> 00:07:17,910
"What's your name, young lady?"

111
00:07:17,910 --> 00:07:20,660
Drew flew on the Space Shuttle Discovery’s
last mission.

112
00:07:20,660 --> 00:07:24,870
But, just because NASA is
moving forward from the Shuttle Program doesn’t

113
00:07:24,870 --> 00:07:26,770
mean astronauts' jobs are over.

114
00:07:26,770 --> 00:07:28,970
"Astronauts are busier than ever right now.

115
00:07:28,970 --> 00:07:33,540
Although the shuttle program wound down
last July we continue as we have been for

116
00:07:33,540 --> 00:07:38,530
years flying to the International Space Station,
although strictly on the Russian Soyuz rockets.

117
00:07:38,530 --> 00:07:41,800
We’re engaged heavily with the
commercial space operators, right now, all

118
00:07:41,800 --> 00:07:46,800
these prospective folks who want to be taxis
and rental cars for us to help them to design

119
00:07:46,800 --> 00:07:49,310
their cockpits, design their operations
plans."

120
00:07:49,310 --> 00:07:54,110
The Hampton event highlighted Cockpits and
other parts of two kinds vehicles –

121
00:07:54,110 --> 00:07:59,200
rockets to racecars and NASA's contributions
to both.

122
00:07:59,200 --> 00:08:03,400
Visitors participated in hands-on
activities that explored some of the similarities

123
00:08:03,400 --> 00:08:07,360
– like aerodynamics and propulsion.

124
00:08:07,360 --> 00:08:09,120
“Yeah!!!”

125
00:08:09,120 --> 00:08:12,620
Kids and adults also had the chance to chat
with an original member of the country's

126
00:08:12,620 --> 00:08:16,860
first all-black aerial combat unit, the Tuskegee
Airmen.

127
00:08:16,860 --> 00:08:19,550
"It was sort of a test.

128
00:08:19,550 --> 00:08:26,520
They thought that and intended for it to fail.

129
00:08:26,520 --> 00:08:35,130
But our commander, he
insisted that we learn the job and do it well."

130
00:08:35,130 --> 00:08:39,680
That was one message the astronaut and aviators
passed along to youngsters get the

131
00:08:39,680 --> 00:08:45,900
education to do the job well and they may
someday rocket into history.

132
00:08:45,900 --> 00:08:49,310
“Wow … is that cool or what?”

133
00:08:49,310 --> 00:08:51,010
“You can windsurf …”

134
00:08:51,010 --> 00:08:55,270
The NASA Headquarters Chapter of Blacks In
Government celebrated the

135
00:08:55,270 --> 00:09:00,000
achievements of Black Women in American History
with a program reflective of the

136
00:09:00,000 --> 00:09:05,260
official 20-12 theme for African-American
History Month, “Black Women in American

137
00:09:05,260 --> 00:09:07,180
Culture and History”.

138
00:09:07,180 --> 00:09:11,250
For the entire month of February, NASA has
proudly recognized

139
00:09:11,250 --> 00:09:18,320

the contributions of African-Americans to
the advancement of Space Exploration.

140
00:09:18,320 --> 00:09:22,950
And in March, which is Women's History Month,
the Women @ NASA website is a

141
00:09:22,950 --> 00:09:27,710
great place to learn about the outstanding
contributions being made to the space

142
00:09:27,710 --> 00:09:30,790
program by women who work at NASA.

143
00:09:30,790 --> 00:09:35,880
You can also learn about Women's History
Month festivities being planned at NASA Centers.

144
00:09:35,880 --> 00:09:41,190
The official theme for this year is
"Women's Education – Women's Empowerment".

145
00:09:41,190 --> 00:09:45,550
To visit the Women@ NASA website,
log on to www.women.nasa.gov.

146
00:09:45,550 --> 00:09:59,730
"3-2-1 and liftoff of Space Shuttle Columbia
to broaden our view of the universe through

147
00:09:59,730 --> 00:10:00,730
the Hubble Space Telescope."

148
00:10:00,730 --> 00:10:05,710
Ten years ago, on March first, 2002, space
shuttle Columbia launched on the fourth

149
00:10:05,710 --> 00:10:07,990
Hubble Space Telescope servicing mission.

150
00:10:07,990 --> 00:10:09,660
“Roger, roll Columbia.”

151
00:10:09,660 --> 00:10:15,640
Commander Scott Altman, pilot Duane Carey,
Payload Commander John Grunsfeld,

152
00:10:15,640 --> 00:10:20,920
and Mission Specialists Nancy Currie, James
Newman, Richard Linnehan, and Mike

153
00:10:20,920 --> 00:10:25,970
Massimino flew on the 11-day mission, during
which five spacewalks were made to

154
00:10:25,970 --> 00:10:31,460
outfit Hubble with new equipment – including
the Advanced Camera for Surveys, new

155
00:10:31,460 --> 00:10:36,940
Solar Arrays, a new Power Control Unit and
an experimental cooling system for

156
00:10:36,940 --> 00:10:42,530
NICMOS – the Near Infrared Camera and Multi-Object
Spectrometer.

157
00:10:42,530 --> 00:10:44,530
And that’s This Week @ NASA!

158
00:10:44,530 --> 00:10:49,860
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