



Dale Nash

Executive Director, Virginia Commercial Spaceflight Authority

1

00:00:05,120 --> 00:00:08,790

HELLO EVERYONE AND WELCOME TO TODAY'S PRELAUNCH
STATUS BRIEFING

2

00:00:08,790 --> 00:00:13,250

FOR ORBITAL ATK INTERNATIONAL SPACE STATION.

3

00:00:13,250 --> 00:00:17,020

I'M KATHRYN HAMBLETON FROM NASA OFFICE OF
COMMUNICATION.

4

00:00:17,020 --> 00:00:21,599

ORBITAL ATK CYGNUS CARGO SPACECRAFT LOADED
WITH ABOUT 5100 POUNDS

5

00:00:21,599 --> 00:00:23,820

OF CARGO FOR THE SPACE STATION.

6

00:00:23,820 --> 00:00:29,270

THE ANTARES ROCKET LIFTS OFF TOMORROW AT 8:03 PM EASTERN

7

00:00:29,270 --> 00:00:32,820

TIME FROM THE MID-ATLANTIC REGIONAL SPACEPORT.

8

00:00:32,820 --> 00:00:36,430

LAUNCH PAD HERE THE FLIGHT FACILITY.

9

00:00:36,430 --> 00:00:39,859

HE TALKED ABOUT HOW PREPARATIONS FOR TOMORROW
ARE PROGRESSING.

10

00:00:39,859 --> 00:00:44,149

OUR JOE MULTIPLE AUTO DEPUTY MANAGER INTERNATIONAL
SPACE AGENCY

11

00:00:44,149 --> 00:00:49,309

PROGRAM FOR NASA'S JOHNSON SPACE CENTER IN
HOUSTON.

12

00:00:49,309 --> 00:00:55,850

FRANK CULBERTSON SPACE SYSTEMS GROUP PRESENT
ORBITAL ACK MIKE

13

00:00:55,850 --> 00:00:59,829

PINKSTON ENTERS PROGRAM VICE PRESIDENT AND
GENERAL MANAGER

14

00:00:59,829 --> 00:01:03,010

ORBITAL ATK.

15

00:01:03,010 --> 00:01:08,470

SARAH DAUGHERTY TEST DIRECTOR AT WALLOPS FLIGHT
FACILITY.

16

00:01:08,470 --> 00:01:11,790

AN DALE NASH EXECUTIVE DIRECTOR FOR VIRGINIA
COMMONWEALTH

17

00:01:11,790 --> 00:01:13,549

SPACEFLIGHT AUTHORITY.

18

00:01:13,549 --> 00:01:16,660

>> AFTER OPENING COMMENTS WILL TAKE YOUR QUESTIONS
FOR THOSE OF

19

00:01:16,660 --> 00:01:20,570

US WATCHING TV ON TV OR ONLINE WOULD TAKE
QUESTIONS FROM SOCIAL

20

00:01:20,570 --> 00:01:21,570

MEDIA.

21

00:01:21,570 --> 00:01:24,030

DURING UPDATE YOU # ASK NASA.

22

00:01:24,030 --> 00:01:28,060

FOR THOSE ON THE PHONE PLEASE PRESS STAR RUN
ANYTIME FOR THE

23

00:01:28,060 --> 00:01:32,720
ANSWER INTO THE QUEUE.

24

00:01:32,720 --> 00:01:35,370
>> FIRST OF ALL THANK YOU VERY MUCH AND WELCOME
AGAIN TO THE

25

00:01:35,370 --> 00:01:38,540
PRELAUNCH STATUS BRIEFING OF THE INTERNATIONAL
SPACE STATION

26

00:01:38,540 --> 00:01:41,380
PROGRAM GLAD TO BE BACK.

27

00:01:41,380 --> 00:01:46,680
WE MISSED SEEING THE LAUNCHES FROM HERE.

28

00:01:46,680 --> 00:01:50,470
THE ORBITAL ATK TEAM HAS DONE A FANTASTIC
JOB GETTING US WHERE WE

29

00:01:50,470 --> 00:01:51,920
ARE TODAY.

30

00:01:51,920 --> 00:01:55,610
WE LOOK FORWARD ON THE EVE OF THE LAUNCH TO
SEE ANOTHER CYGNUS

31

00:01:55,610 --> 00:02:00,100
SPACECRAFT BIRTH INTERNATIONAL SPACE STATION.

32

00:02:00,100 --> 00:02:01,460
WE HAVE A BUSY WEEK.

33

00:02:01,460 --> 00:02:05,660
THIS LAUNCH TOMORROW NIGHT STARTS TO WEEK
BUSY TRAFFIC.

34
00:02:05,660 --> 00:02:09,280
FOR THE INTERNATIONAL SPACE STATION.

35
00:02:09,280 --> 00:02:13,960
YOU HEARD EARLIER ABOUT 5000 POUNDS COMING
ON BOARD TO US WE HAVE

36
00:02:13,960 --> 00:02:16,200
A LAUNCH SLIGHTLY AFTER 8:00 P.M.

37
00:02:16,200 --> 00:02:17,200
LOCAL HERE.

38
00:02:17,200 --> 00:02:20,490
WE'LL HAVE THE BIRTHING ON THE 19TH.

39
00:02:20,490 --> 00:02:22,209
SHORTLY AFTER 7:00 A.M.

40
00:02:22,209 --> 00:02:23,510
EASTERN TIME.

41
00:02:23,510 --> 00:02:29,060
THAT'LL JUST BE THREE HOURS AFTER LAUNCH FROM
WITH THREE CREW

42
00:02:29,060 --> 00:02:30,060
MEMBERS.

43
00:02:30,060 --> 00:02:32,579
NASA ASTRONAUT TO RUSSIAN COSMONAUTS.

44
00:02:32,579 --> 00:02:37,569
THEY WILL LAUNCH OUT OF THE MEETING TODAY
ROUND OF YOU.

45
00:02:37,569 --> 00:02:42,609
THE BE ARRIVING SPACE STATION FRIDAY MORNING

EASTERN TIME SHORTLY

46

00:02:42,609 --> 00:02:44,840
JUST AFTER 6:00 A.M.

47

00:02:44,840 --> 00:02:45,840
LOCAL.

48

00:02:45,840 --> 00:02:48,209
BRING US BACK UP TO SIX PEOPLE ON BOARD THE
INTERNATIONAL SPACE

49

00:02:48,209 --> 00:02:49,209
STATION.

50

00:02:49,209 --> 00:02:52,659
THAT WILL BE SURE LIVED THIS 10 DAYS OF LATER
WILL HAVE THE

51

00:02:52,659 --> 00:02:56,299
UNDOCKING OF THE GROUP THAT LAUNCHED EARLIER
THIS SUMMER.

52

00:02:56,299 --> 00:03:01,470
UNDOCKING RETURNING HOME ENDING THEIR MISSION.

53

00:03:01,470 --> 00:03:06,079
IN EARLY MID NOVEMBER AFTER NOVEMBER 16 WILL
HAVE ANOTHER LAUNCH

54

00:03:06,079 --> 00:03:08,680
AND WILL GO BACK UP TO SIX CREWMEMBERS ON
BOARD THE INTERNATIONAL

55

00:03:08,680 --> 00:03:10,599
SPACE STATION.

56

00:03:10,599 --> 00:03:11,709
WITH THAT I WANT TO THANK YOU.

57

00:03:11,709 --> 00:03:15,109

I WANT TO THANK ORBITAL ATK AND THE FOLKS
THAT SUPPORT THEM

58

00:03:15,109 --> 00:03:17,890

GETTING US WHERE WE ARE TODAY.

59

00:03:17,890 --> 00:03:21,319

>> GOOD AFTERNOON.

60

00:03:21,319 --> 00:03:23,420

WELCOME BACK TO WALLOPS.

61

00:03:23,420 --> 00:03:31,200

THIS IS A VERY EXCITING TIME FOR US AT ORBITAL
ATK WANT TO THANK

62

00:03:31,200 --> 00:03:34,819

EVERYONE WHO HAS A PART IN GETTING US BACK
TO THIS POINT GETTING

63

00:03:34,819 --> 00:03:36,330

READY FOR A LAUNCH AFTER TWO YEARS.

64

00:03:36,330 --> 00:03:38,719

A LOT OF HARD WORK HAS GONE INTO THIS.

65

00:03:38,719 --> 00:03:42,260

I ESPECIALLY WANT TO THANK NASA WALLOPS INCLUDING
THE TEAM THAT

66

00:03:42,260 --> 00:03:45,519

WEATHERED THE HURRICANE NICOLE AND BERMUDA.

67

00:03:45,519 --> 00:03:47,459

AND GOT IT BACK ONLINE FOR SO QUICKLY.

68

00:03:47,459 --> 00:03:50,139
AS WELL AS PROTECTING THE HARDWARE SO WELL.

69
00:03:50,139 --> 00:03:53,810
EVERYONE HERE AT WALLOPS VIRGINIA SPACEFLIGHT
AUTHORITY, THE

70
00:03:53,810 --> 00:03:58,000
RANGE, THE SAFETY FOLKS EVERYONE WHO HAS WORKED
TO MAKE THIS

71
00:03:58,000 --> 00:03:59,000
HAPPEN.

72
00:03:59,000 --> 00:04:01,579
I ESPECIALLY WANT TO THANK THE MEMBERS OF
THE FLIGHT SYSTEMS

73
00:04:01,579 --> 00:04:07,309
GROUP ANTARES TEAM EVERYONE WHO IS WORKED
ON PREPARING THE ROCKET

74
00:04:07,309 --> 00:04:10,079
AND MAKING SURE THAT WE ARE READY TO GO.

75
00:04:10,079 --> 00:04:14,760
THE CYGNUS SPACECRAFT ALSO READY LOADED WITH
ABOUT 2400 ~GRAMS OF

76
00:04:14,760 --> 00:04:15,760
CARGO.

77
00:04:15,760 --> 00:04:18,570
THE GROUP EAGERLY AWAITS AS ALWAYS.

78
00:04:18,570 --> 00:04:21,740
EVERY CARGO MISSION IS LIKE CHRISTMAS.

79
00:04:21,740 --> 00:04:23,530

THEY NEVER KNOW WHAT THEY'RE GOING TO FIND
WHEN THEY OPEN THE

80

00:04:23,530 --> 00:04:24,530
HATCH.

81

00:04:24,530 --> 00:04:29,810
WILL LOOK FORWARD TO THAT HONOR ON 19 OCTOBER.

82

00:04:29,810 --> 00:04:36,470
AS JOEL SAID LAUNCH TIME IS 8:03 PM WILL LAUNCH
OR WILL RHONDA

83

00:04:36,470 --> 00:04:39,280
VIEW AT ABOUT THE SAME TIME IN THE MORNING.

84

00:04:39,280 --> 00:04:41,039
THE CREW COME ABOARD ON FRIDAY.

85

00:04:41,039 --> 00:04:42,410
ABOUT 6:00 A.M.

86

00:04:42,410 --> 00:04:43,410
EASTERN TIME.

87

00:04:43,410 --> 00:04:47,910
THIS PARTICULAR CYGNUS SPACECRAFT IS ALL OF
SO FAR IS NAMED AFTER

88

00:04:47,910 --> 00:04:52,169
A FORMER ASTRONAUT THIS ONE IS NAMED AFTER
ALAN POINDEXTER

89

00:04:52,169 --> 00:04:54,650
CAPTAIN KNIGHT STATES NAVY RETIRED.

90

00:04:54,650 --> 00:04:58,650
ALAN IS A SECOND PHONE ASTRONAUT WAS ACTUALLY
PARTICIPATED IN THE

91
00:04:58,650 --> 00:05:03,060
ASSEMBLY AND OPERATION OF THE INTERNATIONAL
SPACE STATION.

92
00:05:03,060 --> 00:05:06,680
ALAN WAS A FORMER NAVY FIGHTER PILOT A TEST
PILOT, AND FLEW INTO

93
00:05:06,680 --> 00:05:11,349
SHUTTLE MISSIONS PRIOR TO RETURNING FROM NASSAU.

94
00:05:11,349 --> 00:05:17,590
HE WAS ON SES 122 THAT CARRIED THE COLUMBUS
LABORATORY FROM ESA

95
00:05:17,590 --> 00:05:21,040
TO BE INSTALLED ON THE SPACE STATION.

96
00:05:21,040 --> 00:05:24,110
A GREAT ACHIEVEMENT IN TERMS OF EXPANDING
THE CAPACITY AND

97
00:05:24,110 --> 00:05:26,530
SCIENTIFIC CAPABILITIES OF THE STATION.

98
00:05:26,530 --> 00:05:31,729
AND THEN HE COMMANDED STS 131 ABOARD DISCOVERY
WHICH WAS

99
00:05:31,729 --> 00:05:33,670
INTERESTINGLY A CARGO MISSION.

100
00:05:33,670 --> 00:05:37,320
AND THEY CARED ABOUT 6000 KILOGRAMS OF CARGO
TO AND FROM THE

101
00:05:37,320 --> 00:05:38,320
STATION.

102

00:05:38,320 --> 00:05:43,080

AND SO WE THINK IT'S VERY FITTING THAT THE
ALAN IS A NAMESAKE FOR

103

00:05:43,080 --> 00:05:46,530

THIS PARTICULAR CIGNA WERE VERY HONORED TO
HAVE HIS NAME AND HIS

104

00:05:46,530 --> 00:05:51,470

PICTURE IS A PART OF THIS SPACECRAFT.

105

00:05:51,470 --> 00:05:53,889

WE DO HAVE A VIDEO THAT I WOULD LIKE TO RUN
THROUGH.

106

00:05:53,889 --> 00:05:56,750

THAT WILL GIVE YOU A LITTLE BIT OF AN IDEA
OF THE CYGNUS

107

00:05:56,750 --> 00:06:01,290

SPACECRAFT AND ITS COMPOSED OR CONSISTS OF
AN MANY OPERATIONS

108

00:06:01,290 --> 00:06:03,610

THAT WILL BE SEEING OVER THE NEXT FEW DAYS.

109

00:06:03,610 --> 00:06:07,820

THE SERVICE MODULE WHICH IS INTEGRATED AND
TESTED AT OUR DULLES

110

00:06:07,820 --> 00:06:10,880

VIRGINIA FACILITY NOT TOO FAR FROM HERE.

111

00:06:10,880 --> 00:06:16,569

YOU SEE IN THIS PICTURE THE SOLAR RAYS THAT
ALSO BUILT BY ORBITER

112

00:06:16,569 --> 00:06:22,819

ATK THE DEPLOYMENT TESTING AND THEN CYGNUS
PRESSURIZED CARGO

113
00:06:22,819 --> 00:06:29,939
MODULATOR SO COMES FROM TELUS FELLOWS ALENIA
ITALY.

114
00:06:29,939 --> 00:06:33,680
MADE WITH THE CYGNUS SERVICE MODULE USING
THIS PICTURE HERE VERY

115
00:06:33,680 --> 00:06:36,020
DELICATE OPERATION.

116
00:06:36,020 --> 00:06:38,960
TAKES QUITE A WHILE TO ACCOMPLISH BUT OF COURSE
VERY IMPORTANT IN

117
00:06:38,960 --> 00:06:43,069
MAKING SURE THE TWO SPACECRAFTS ARE SECURELY
ATTACHED TOGETHER.

118
00:06:43,069 --> 00:06:46,259
ROTATED INTO VERTICAL CARE TO THE DRILLING
FACILITY AROUND THE

119
00:06:46,259 --> 00:06:48,240
ISLAND.

120
00:06:48,240 --> 00:06:50,979
THEN AFTER FUELING ITS TAKEN INTO THE HORIZONTAL
INTEGRATION

121
00:06:50,979 --> 00:06:55,949
FACILITY THAT YOU SEE HERE TO BE READY FOR
MATING TO THE LAUNCH

122
00:06:55,949 --> 00:06:57,979
VEHICLE ITSELF.

123
00:06:57,979 --> 00:07:01,849
ONE OF THE LAST THINGS WE DO IS LOAD SOME
CARGO PRIOR TO THE LAST

124
00:07:01,849 --> 00:07:06,060
CLOSING OF THE HATCH THAT WE CALL LATE LOAD
THE THINGS THAT NASA

125
00:07:06,060 --> 00:07:09,360
BRINGS IN LATE THAT THEY HAVE BEEN PREPARING
THAT THEY NEED TO GO

126
00:07:09,360 --> 00:07:11,699
ON THE LAST WEEK OR TWO.

127
00:07:11,699 --> 00:07:13,819
SOMETIMES AS TIME CRITICAL SOMETIMES IT'S
NOT.

128
00:07:13,819 --> 00:07:18,520
THIS TIME IT'S NOT THAT TIME CRITICAL BUT
IT WAS LATE.

129
00:07:18,520 --> 00:07:21,409
ONCE IT'S ASSEMBLED TO ANTARES MICHAEL TULLY
ABOUT THE LAUNCH

130
00:07:21,409 --> 00:07:24,520
JUST A MOMENT THEY DELIVER US INTO ORBIT.

131
00:07:24,520 --> 00:07:28,560
WE SEPARATE FROM THE LAUNCH VEHICLE DEPLOY
THE SOLAR RAYS THIS

132
00:07:28,560 --> 00:07:31,509
PARTICULAR OPERATION TAKES OVER 15 MINUTES.

133
00:07:31,509 --> 00:07:35,060
THIS IS SPEEDED UP BECAUSE JOEL DOESN'T REALLY

WANT ME TO TALK

134

00:07:35,060 --> 00:07:36,379
THAT MUCH.

135

00:07:36,379 --> 00:07:40,240
[LAUGHTER] OVER THE COURSE OF THE NEXT TWO
DAYS WILL RAISE THE

136

00:07:40,240 --> 00:07:43,340
ORBIT AS WE CATCH UP WITH THE SPACE STATION
AND PREPARE FOR THE

137

00:07:43,340 --> 00:07:45,169
FINAL RHONDA VIEW.

138

00:07:45,169 --> 00:07:46,169
AND BIRTHING.

139

00:07:46,169 --> 00:07:49,319
AS WE APPROACH THE STATION THE CREW WILL BE
WATCHING THIS VERY

140

00:07:49,319 --> 00:07:50,580
CLOSELY.

141

00:07:50,580 --> 00:07:56,090
PREPARING TO SNAG US WITH THE CANADIAN REMOTE
MANIPULATOR SYSTEM

142

00:07:56,090 --> 00:07:57,169
OR THE ARM.

143

00:07:57,169 --> 00:08:00,879
AND THEN AS WE GET WITHIN 10 METERS OF THE
STATION KEPT THE

144

00:08:00,879 --> 00:08:05,349
LECTURE GRAPPLES WITH THE END EFFECTOR VERY

DELICATE OPERATION

145
00:08:05,349 --> 00:08:10,080
THAT CONSISTS OF MATING US WITH THE THIS CASE
NOTED ONE OPENING

146
00:08:10,080 --> 00:08:12,229
THE HATCH TO SEE WHAT'S INSIDE.

147
00:08:12,229 --> 00:08:15,340
THEY BEGAN THE ACTIVITY OF UNLOADING THE 2400
KILOGRAMS.

148
00:08:15,340 --> 00:08:21,009
THEY UNLOADED WITH DISPOSABLE CARGO OR SOME
PEOPLES TERMS TRASH.

149
00:08:21,009 --> 00:08:24,669
DEPLOY US FROM THE STATION WHERE WILL FLY
AWAY AND BEGAN OUR

150
00:08:24,669 --> 00:08:26,539
REENTRY OPERATIONS.

151
00:08:26,539 --> 00:08:30,229
DURING THE EIGHT DAYS FOLLOWING OUR TIME ABOARD
THE STATION WILL

152
00:08:30,229 --> 00:08:32,010
CONDUCT A COUPLE OF EXPERIENCE.

153
00:08:32,010 --> 00:08:34,380
THE FIRST ONE WILL BE OF FIRE EXPERIMENT ON
BEHALF OF GLENN

154
00:08:34,380 --> 00:08:39,580
RESEARCH CENTER CELL FIRE REACTS AND DRG REDEPLOY
SOME CUBESATS

155

00:08:39,580 --> 00:08:43,840
FOR AN ATARAX ON THE OUTSIDE OF THE SPACE
STATION.

156
00:08:43,840 --> 00:08:45,890
AND THAT IS ABOUT REAL TIME THERE.

157
00:08:45,890 --> 00:08:49,010
IT'S QUITE A OPERATION.

158
00:08:49,010 --> 00:08:54,200
ONCE WE'VE COMPLETED ALL OF OUR POST ORBITAL
ACTIVITIES, WILL

159
00:08:54,200 --> 00:08:58,029
REENTER OVER THE PACIFIC THIS ACTUAL VIDEO
TAKEN FROM AN AIRCRAFT

160
00:08:58,029 --> 00:09:01,260
DURING THE OA SIX REENTRY.

161
00:09:01,260 --> 00:09:03,529
WE DO MONITOR THAT.

162
00:09:03,529 --> 00:09:06,200
WE HOPE IT ALL COMES DOWN UNINHABITED AREAS.

163
00:09:06,200 --> 00:09:10,120
SOMEONE WE DON'T WANT TO LAND ON ANYBODY'S
HEAD NOR DO YOU.

164
00:09:10,120 --> 00:09:11,120
ALL BURNS UP.

165
00:09:11,120 --> 00:09:13,920
SO WE FEEL VERY CONFIDENT OF WHAT'S GOING
ON.

166
00:09:13,920 --> 00:09:16,910

AGAIN, WERE VERY PROUD TO BE AT THIS POINT.

167
00:09:16,910 --> 00:09:19,660
VERY GRATEFUL TO ALL OF THE HARD WORK THAT'S
GONE INTO GETTING US

168
00:09:19,660 --> 00:09:21,200
HERE.

169
00:09:21,200 --> 00:09:23,580
WE ARE READY TO GO TOMORROW.

170
00:09:23,580 --> 00:09:26,970
GO ON TOWERS GO CYGNUS NOW GO MIKE.

171
00:09:26,970 --> 00:09:28,670
THANKS FRANK.

172
00:09:28,670 --> 00:09:33,410
I'D LIKE TO START BY SAYING HOW GREAT IT IS
AND HOW EXCITED WE

173
00:09:33,410 --> 00:09:38,649
ARE TO BE BACK HERE WALLOPS AND OPERATIONS
MODE WITH ANTARES ROCK

174
00:09:38,649 --> 00:09:42,660
ON PAD 08 GETTING READY FOR LUNCH TOMORROW.

175
00:09:42,660 --> 00:09:46,220
I THINK I'VE GOT A SHORT VIDEO TO TALK A LITTLE
BIT ABOUT THE

176
00:09:46,220 --> 00:09:50,440
UPGRADED ANTARES ROCKET.

177
00:09:50,440 --> 00:09:56,180
THE SHOWS CUTAWAY FASHION THE MOST SIGNIFICANT
UPGRADE WE MADE TO

178

00:09:56,180 --> 00:10:02,060

THE VEHICLE IS A NEW RD-181 GOING REALLY FAST
RD-181 ENGINE TO

179

00:10:02,060 --> 00:10:06,780

ENGINES POWER THE VEHICLE THE CORE HAS TWO
PROPELLANT TANKS RP

180

00:10:06,780 --> 00:10:10,600

TANK WITH ABOUT 21,000 GALLONS UNLOCKS TANK
THAT WAS BLUE BUT IT

181

00:10:10,600 --> 00:10:11,920

WENT REALLY FAST.

182

00:10:11,920 --> 00:10:16,050

ABOUT 40,000 GALLONS REVERSING THE CIGNA THE
SECOND STAGE THAT I

183

00:10:16,050 --> 00:10:17,050

MISSED.

184

00:10:17,050 --> 00:10:22,959

IT IS A CASTOR 30 XO BUILT BY OUR ORBITAL
ATK TEAM UP IN UTAH.

185

00:10:22,959 --> 00:10:28,800

ALL OF THAT UPPER STACK IS ENCASED BY A FEARING
THAT'S ABOUT WERE

186

00:10:28,800 --> 00:10:30,060

GOING TO DO IT AGAIN.

187

00:10:30,060 --> 00:10:32,370

A FEARING THAT'S ABOUT 10 METERS LONG.

188

00:10:32,370 --> 00:10:36,090

THE BOYS WAS WERE UP OUT OF THE ATMOSPHERE

THINK THAT'S ENOUGH OF

189

00:10:36,090 --> 00:10:38,470

THAT ONE.

190

00:10:38,470 --> 00:10:44,110

[LAUGHTER] TAKE A TREMENDOUS AMOUNT OF WORK
TO GET TO THIS POINT.

191

00:10:44,110 --> 00:10:48,949

BETWEEN THE RECONFIGURATION OF ANTARES GETTING
THE PAD READY TO

192

00:10:48,949 --> 00:10:52,820

GO WE HAD A VERY SUCCESSFUL STAGE TEST WHICH
IS ALMOST LIKE A

193

00:10:52,820 --> 00:10:55,670

LAUNCH IN AND OF ITSELF BACK IN MAY.

194

00:10:55,670 --> 00:11:00,430

AND THEN PREPARING THIS VEHICLE FOR LAUNCH
I WANT TO SAY THANKS

195

00:11:00,430 --> 00:11:08,400

AND COMMEND THE ENTIRE TEAM ORBITAL ATK DALES
MID-ATLANTIC

196

00:11:08,400 --> 00:11:14,740

REGIONAL SPACEPORT TEAM THE WALLOPS TEAM FOR
A TREMENDOUS EFFORT

197

00:11:14,740 --> 00:11:19,250

UNBELIEVABLE HOURS THAT WENT INTO THIS AND
GETTING US READY FOR A

198

00:11:19,250 --> 00:11:21,620

SPECTACULAR MISSION COMING UP TOMORROW.

199

00:11:21,620 --> 00:11:25,240

I THINK I GOT ONE MORE VIDEO TO TALK A LITTLE
BIT ABOUT THE

200

00:11:25,240 --> 00:11:26,730

LAUNCH OPERATION.

201

00:11:26,730 --> 00:11:32,709

THIS IS THE VEHICLE AND THE HEFT WE MADE IT
CYGNUS LAUNCH VEHICLE

202

00:11:32,709 --> 00:11:36,290

SUNDAY NIGHT THE TEAM GETTING IT PREPPED AND
READY FOR FEARING

203

00:11:36,290 --> 00:11:40,350

MADE THE FEARING GETS MATED A COUPLE MORE
TESTS ARE RUN AND THE

204

00:11:40,350 --> 00:11:41,350

WORK READY TO ROLLOUT.

205

00:11:41,350 --> 00:11:43,730

THIS HAPPENED THURSDAY EVENING.

206

00:11:43,730 --> 00:11:49,670

ROLL THE VEHICLE TO THE PAD GOT IT READY TO
ERECT.

207

00:11:49,670 --> 00:11:56,519

THE COUNTDOWN TOMORROW WILL START OUT AT ABOUT
T MINUS SIX HOURS.

208

00:11:56,519 --> 00:12:00,041

WE BEGAN FUELING THE VEHICLE ABOUT AN HOUR
AND AND A HALF OUT

209

00:12:00,041 --> 00:12:01,370

FROM LAUNCH.

210
00:12:01,370 --> 00:12:05,220
HERE WE ARE AT ABOUT T -10 MINUTES WHERE WE
DO OUR FINAL

211
00:12:05,220 --> 00:12:08,590
READINESS POLES AND GO FOR LUNCH CALLS.

212
00:12:08,590 --> 00:12:12,300
AT ABOUT THREE MINUTES AND 30 SECONDS WILL
ACTUALLY TRANSITION TO

213
00:12:12,300 --> 00:12:15,500
AN AUTO SEQUENCER THAT CONTROLS THE COUNTDOWN.

214
00:12:15,500 --> 00:12:20,470
ALL THE WAY DOWN TO T0 IN THE T0 WE HAVE IGNITION
SHORTLY

215
00:12:20,470 --> 00:12:22,240
THEREAFTER LIFT OFF.

216
00:12:22,240 --> 00:12:25,920
THE VEHICLE DOES A LITTLE WIGGLE MOVEMENT
THERE TO AVOID PUTTING

217
00:12:25,920 --> 00:12:29,720
THE PLUME ON THE TRANSPORTER RECTOR SO DON'T
LET THAT STOP YOUR

218
00:12:29,720 --> 00:12:30,720
HEART.

219
00:12:30,720 --> 00:12:33,450
IT DOES MIND BUT IT'S ALL PERFECTLY NORMAL.

220
00:12:33,450 --> 00:12:38,730
AND THEN WERE OFF WITH STAGE ONE BURNING STAGE
ONE BURNS FOR

221
00:12:38,730 --> 00:12:40,200
ABOUT THREE AND HALF MINUTES.

222
00:12:40,200 --> 00:12:41,200
AT WHICH POINT WAS SEPARATED.

223
00:12:41,200 --> 00:12:44,760
WILL CODED FOR A LITTLE BIT.

224
00:12:44,760 --> 00:12:49,680
AND THEN SHORTLY AFTER STAGE I SEPARATION
WILL COME UPON FEARING

225
00:12:49,680 --> 00:12:51,330
SEPARATION.

226
00:12:51,330 --> 00:12:54,730
EXPOSES THE SECOND STAGE IN THE CYGNUS PAYLOAD
REIGNITED SECTION

227
00:12:54,730 --> 00:12:55,730
STAGE.

228
00:12:55,730 --> 00:12:59,310
THE SECOND STAGE FOR LITTLE MORE THAN TWO
IS.

229
00:12:59,310 --> 00:13:05,090
TO TAKE CIGNA TO ORBIT AND BURNOUT WILL DO
LITTLE BIT OF

230
00:13:05,090 --> 00:13:10,040
REORIENTATION AND THEN YOU GET A TICKET SHOT
ON FRANK'S VIDEO BUT

231
00:13:10,040 --> 00:13:13,910
WILL SEPARATE THE PAYLOAD ABOUT NINE MINUTES
INTO THE MISSION.

232
00:13:13,910 --> 00:13:18,139
THAT'S ALL WE GOT IN STORE FOR TOMORROW.

233
00:13:18,139 --> 00:13:20,160
JUST THANKS AGAIN.

234
00:13:20,160 --> 00:13:22,970
REALLY EXCITED TO BE HERE AGAIN.

235
00:13:22,970 --> 00:13:25,860
MY COMMENTS TO THE ENTIRE TEAM IT'S TAKEN
A HECK OF A LOT OF WORK

236
00:13:25,860 --> 00:13:27,459
TO GET TO THIS POINT.

237
00:13:27,459 --> 00:13:32,730
NEXT I'LL JUST ECHO EVERYBODY ELSE THAT'S
COMMENTS THAT WE ARE

238
00:13:32,730 --> 00:13:37,600
VERY EXCITED WALLOPS LAUNCH RANGE THE BIG
SHOW BACK IN TOWN WE

239
00:13:37,600 --> 00:13:41,350
BEEN BUSY OVER THE LAST COUPLE OF YEARS WITH
OTHER MISSIONS WERE

240
00:13:41,350 --> 00:13:47,750
ALWAYS EXCITED TO HAVE AND TERRY'S BACK HERE
LAUNCHING WITH US.

241
00:13:47,750 --> 00:13:53,380
AS FAR AS LAUNCH RANGE INSTRUMENTATION AND
STATUS GOES WERE CLEAR

242
00:13:53,380 --> 00:13:57,300
ON ALL OF OUR ASSETS ALL OF OUR TRACKING RATERS
AND TELEMETRY

243

00:13:57,300 --> 00:13:59,800

SITES FRANK ALLUDED TO EARLIER.

244

00:13:59,800 --> 00:14:04,380

OUR BERMUDA TRACKING STATION AFTER A COUPLE
OF DOWN DAYS DUE TO

245

00:14:04,380 --> 00:14:09,610

HURRICANE NICOLE FARED REMARKABLY WELL AND
THAT WEATHER AND MAJOR

246

00:14:09,610 --> 00:14:14,020

KUDOS TO THAT TEAM THERE THAT WEATHER THE
STORM AND WAS ABLE TO

247

00:14:14,020 --> 00:14:16,370

GET THOSE SYSTEMS BACK UP AND RUNNING.

248

00:14:16,370 --> 00:14:21,860

AND THEY ARE GREEN AND FUNCTIONING NORMALLY
AT THIS TIME.

249

00:14:21,860 --> 00:14:23,760

WERE READY TO GO.

250

00:14:23,760 --> 00:14:27,870

OUR LAUNCH WHETHER OFFICER JUST A LITTLE WHILE
AGO GAVE US ABOUT

251

00:14:27,870 --> 00:14:32,160

IS CLEAN OF A BILL OF HEALTH AS YOU CAN FOR
WHETHER SO THEY CAN

252

00:14:32,160 --> 00:14:37,240

GIVE US 100 PERCENT CHANCE OF NO VIOLATIONS
WE GOT 95 BUT I THINK

253

00:14:37,240 --> 00:14:41,149

THAT'S A TYPICAL WEATHERMAN THERE.

254
00:14:41,149 --> 00:14:44,959
[LAUGHTER] THEIR INSURANCE PROBABLY REQUIRES
A NEVER TO GIVE 100

255
00:14:44,959 --> 00:14:50,630
PERCENT ADVANCE OF ANYTHING SO AGAIN, WORK
CITED AND WERE READY

256
00:14:50,630 --> 00:14:57,209
FROM THE LAUNCH RANGE ASPECT AND PASS IT OVER
TO DALE.

257
00:14:57,209 --> 00:15:00,839
>> THANK YOU EVERYONE.

258
00:15:00,839 --> 00:15:08,829
THE COMMONWEALTH IS AGAIN VERY PLEASED TO
PUT ON A SHOWCASE OF

259
00:15:08,829 --> 00:15:12,139
WHERE THE COMMONWEALTH IS COMING IN AND CREATED
A VERY STRONG

260
00:15:12,139 --> 00:15:19,150
PARTNERSHIP WITH NASA IN ORDER TO ATK FOR
GEOCENTRIC PARTNERSHIP.

261
00:15:19,150 --> 00:15:25,100
REALLY THE BIRTH OF SPACE OUR SPACE PROGRAM
IN THE US STARTED

262
00:15:25,100 --> 00:15:26,100
HERE.

263
00:15:26,100 --> 00:15:30,190
AT WALLOPS BUT WITHOUT THE INVESTMENT SIGNIFICANT
INVESTMENT BY

264

00:15:30,190 --> 00:15:33,830

THE COMMONWEALTH, IT WOULD ALL STILL BE SUBORBITAL
ROCKETS.

265

00:15:33,830 --> 00:15:37,360

THE INVESTMENT THAT'S COMMONWEALTH PUT IN
THAT ENABLES US THE

266

00:15:37,360 --> 00:15:42,070

ABILITY TO LAUNCH THE ANTARES ROCKET FROM
HERE ALSO THE MASTER

267

00:15:42,070 --> 00:15:45,660

CLASS ROCKETS IF YOU GO OUT THERE YOU SEE
SIGNS IS A ON-RAMP TO

268

00:15:45,660 --> 00:15:49,360

THE INTERNATIONAL SPACE STATION THAT FRANK
DESIGNED THAT.

269

00:15:49,360 --> 00:15:55,079

WE WILL LAUNCHING ANOTHER ORBITAL ATK MISSION
WITHIN 12 DAYS

270

00:15:55,079 --> 00:15:58,899

HEADED TO THE MOON WE JUST WANTED TO MAKE
SURE THAT THEY DID GET

271

00:15:58,899 --> 00:16:02,589

CONFUSED AND GO THE WRONG PATH WITH THE WRONG
POCKET SO THAT'S

272

00:16:02,589 --> 00:16:07,699

ONE TIME SAYS MOON AHEAD AND ON-RAMP INTERNATIONAL
SPACE STATION.

273

00:16:07,699 --> 00:16:11,250

WITH THAT INVESTMENT, WE HAVE ENABLED THIS
NATIONAL ASSET THAT IS

274

00:16:11,250 --> 00:16:19,610

A LOT OF CAPABILITY TO REALLY GET INTO THE SPACE PROGRAM.

275

00:16:19,610 --> 00:16:27,790

THE PARTNERSHIP ONLY BECOME STRONGER THROUGH THIS ENTIRE EFFORT.

276

00:16:27,790 --> 00:16:32,509

AGAIN ORBITAL ATK A VIRGINIA-BASED CORPORATION.

277

00:16:32,509 --> 00:16:36,650

WE HAVE STRENGTHENED AND RECOMMITTED OUR PARTNERSHIP UP TO AND

278

00:16:36,650 --> 00:16:43,440

INCLUDING THE GOVERNOR LEVEL AND CEO WITH ORBITAL ATK AND THAT

279

00:16:43,440 --> 00:16:46,990

WILL CARRY THROUGH THROUGH AT LEAST 2024.

280

00:16:46,990 --> 00:16:54,959

WE HAVE REBUILT A PAD, WE HAVE PROBABLY NEVER HAD A CLEANER

281

00:16:54,959 --> 00:16:55,959

BETTER LOOKING PAD.

282

00:16:55,959 --> 00:16:57,370

IT LOOKS REALLY GOOD.

283

00:16:57,370 --> 00:17:02,430

THE WHOLE REBUILT EFFORTS WITH NASA AND OVER ATK STARTED WITHIN

284

00:17:02,430 --> 00:17:08,100

MINUTES AFTER THE EXPLOSION AND IS CONTINUED ON THROUGH.

285

00:17:08,100 --> 00:17:11,669

WE DID COMPLETE THE PAD AND REBUILT IT IN
ABOUT 11 MONTHS AND

286

00:17:11,669 --> 00:17:16,100

RIGHT AT ABOUT \$50 MILLION WHICH WE SHARED
THREE WAYS BETWEEN

287

00:17:16,100 --> 00:17:20,100

NASA OURSELVES AND ORBITAL ATK.

288

00:17:20,100 --> 00:17:26,260

AS MIKE SAID THE TEST CAME OFF EXTREMELY WELL.

289

00:17:26,260 --> 00:17:32,650

WET DRESS REHEARSAL WE FULLY IT UP DON'T FIRE
IN DON'T LET IT GO

290

00:17:32,650 --> 00:17:36,530

THOSE WERE TWO OF THE CLEAREST TESTS WE'VE
EVER SEEN IMPROVED OUT

291

00:17:36,530 --> 00:17:39,641

THE SYSTEM NOT ONLY TO REBUILD THE PAD BUT
THE MODIFICATIONS WE

292

00:17:39,641 --> 00:17:43,260

MADE FOR THE RD-181.

293

00:17:43,260 --> 00:17:47,850

THIS FLOW IS GONE DESPITE BERMUDA HAS GONE

294

00:17:47,850 --> 00:17:50,420

REMARKABLY WELL HERE.

295

00:17:50,420 --> 00:17:56,900

WE ARE LOOKING FORWARD TO PUTTING YOUR ROCKETS
OUT OF THE NASA

296

00:17:56,900 --> 00:18:01,309

WALLOPS FLIGHT FACILITY AND PLAYING OUR PART
IN THAT.

297

00:18:01,309 --> 00:18:02,309

THANK YOU.

298

00:18:02,309 --> 00:18:05,370

>> WE WILL NOW TAKE QUESTIONS FROM THOSE HERE
IN THE ROOM AS WELL

299

00:18:05,370 --> 00:18:06,970

AS THOSE ON THE PHONE.

300

00:18:06,970 --> 00:18:09,730

AGAIN FOR THOSE ON THE PHONE PLEASE PRESS
STAR WANTS TO BE

301

00:18:09,730 --> 00:18:12,180

ENTERED INTO THE QUEUE AT ANY TIME.

302

00:18:12,180 --> 00:18:18,990

THOSE WHO ARE FOLLOWING US ON THE INTERNET
CHECK PLEASE USE A #

303

00:18:18,990 --> 00:18:35,690

ASKED NASA.

304

00:18:35,690 --> 00:18:36,690

>>.

305

00:18:36,690 --> 00:18:44,029

[INDISCERNABLE]

306

00:18:44,029 --> 00:18:46,850

>> IT TOOK A LONG TIME BUT ALTERED TO MAKE
IT BRIEF IN TERMS OF

307

00:18:46,850 --> 00:18:51,240

EXPLANATION BUT WE DID HAVE TO MAKE SOME CHANGES
TO THE

308

00:18:51,240 --> 00:18:55,180

STRUCTURES THAT ARE USED TO TRANSFER THE TRUST
FLOWS FROM THE

309

00:18:55,180 --> 00:18:58,760

ENGINE TO THE CORPORATE PROPELLANT TANKS THE
CORE STRUCTURE

310

00:18:58,760 --> 00:19:01,870

ITSELF WAS LARGELY UNCHANGED.

311

00:19:01,870 --> 00:19:06,650

AIDED GREATLY BY HOW CLOSE THEY MATCH THE
TWO ENGINES WERE IN

312

00:19:06,650 --> 00:19:09,320

SOME OF THEIR KEY CHARACTERISTICS.

313

00:19:09,320 --> 00:19:12,780

WE HAVE DIFFERENT CONTROL SCHEMES ON THE ENGINES.

314

00:19:12,780 --> 00:19:18,130

ON THE RD-181 THAT WE HAD IN THE AJ 26 AS
WELL AS SIGNIFICANT

315

00:19:18,130 --> 00:19:20,740

ENHANCEMENTS IN THE AMOUNT OF INSTRUMENTATION
WE HAVE ON BOARD.

316

00:19:20,740 --> 00:19:23,880

BOTH OF WHICH DROVE SOME FAIRLY SIGNIFICANT
CHANGES TO OUR

317

00:19:23,880 --> 00:19:28,090

AVIONICS IN ORDER TO WORK TOGETHER WITH IT

AND THEN OBVIOUSLY

318
00:19:28,090 --> 00:19:34,760
SOME DIFFERENCES AND UNIQUE INTERFACES FROM
APPELLANTS AND GASES

319
00:19:34,760 --> 00:19:40,100
AND COMMODITY PERSPECTIVE IT ALL HAD TO BE
IMPLEMENTED SO IT WAS

320
00:19:40,100 --> 00:19:43,740
A VERY DETAILED METICULOUS PROCESS.

321
00:19:43,740 --> 00:19:48,990
BUT AS EVIDENCED BY THE STAGE TEST WE GOT
IT RIGHT.

322
00:19:48,990 --> 00:20:05,350
READY TO GO READY TO GO TOMORROW.

323
00:20:05,350 --> 00:20:06,350
>>.

324
00:20:06,350 --> 00:20:07,450
[INDISCERNABLE]

325
00:20:07,450 --> 00:20:11,440
>> WHAT WE WOULD DO IS TOMORROW'S LAUNCH IS
GOOD AND THEY WOULD

326
00:20:11,440 --> 00:20:15,700
HAVE THE BIRTHING ON THE 19TH IF HAVE TO PUSH
TO MONDAY THEN

327
00:20:15,700 --> 00:20:19,840
CYGNUS WOULD GO HEADED LAWYER FOR THE CREW
WOULD COME INTO THE

328
00:20:19,840 --> 00:20:20,880

DOCKING.

329

00:20:20,880 --> 00:20:25,190

THE CYGNUS CAPABILITY REVIEW TO FLIGHT READINESS
REVIEW THEY HAD

330

00:20:25,190 --> 00:20:30,380

WORST-CASE 20 DAYS, 20+ DAYS AND WITH A NOMINAL
ASSET THEY WOULD

331

00:20:30,380 --> 00:20:32,679

HAVE ALMOST 40 DAYS.

332

00:20:32,679 --> 00:20:36,029

SO NOT AN ISSUE AT ALL BUT CYGNUS WOULD STAND
DOWN AND WAIT FOR

333

00:20:36,029 --> 00:20:53,350

THE HUMAN SPACEFLIGHT TO GO AHEAD AND DOCK.

334

00:20:53,350 --> 00:20:54,350

>>.

335

00:20:54,350 --> 00:21:06,440

[INDISCERNABLE]

336

00:21:06,440 --> 00:21:09,570

>> WE WORK NOURISHES ON CYGNUS READY TO GO.

337

00:21:09,570 --> 00:21:11,190

ANXIOUS TO GET GOING.

338

00:21:11,190 --> 00:21:13,700

WEATHERMAN MAKES ME NERVOUS BUT.

339

00:21:13,700 --> 00:21:18,730

[LAUGHTER] I THINK VERY OPTIMISTIC HOWEVER
IS A LAUNCH.

340
00:21:18,730 --> 00:21:21,520
ANY OF US HAVE BEEN IN THIS BUSINESS A WHILE
YOU TAKE THIS VERY

341
00:21:21,520 --> 00:21:26,100
SERIOUSLY AND YOU WANT EVERYTHING VERY CLOSELY.

342
00:21:26,100 --> 00:21:27,610
YOU'VE GOT TO COUNT ON LOVE PEOPLE.

343
00:21:27,610 --> 00:21:29,159
YEAH ALWAYS NERVOUS.

344
00:21:29,159 --> 00:21:31,890
BUT I'M EXTREMELY CONFIDENT.

345
00:21:31,890 --> 00:21:33,110
IN THIS HARDWARE.

346
00:21:33,110 --> 00:21:46,700
I THINK THE CREW IS GOING TO GET THEIR PRESENCE

347
00:21:46,700 --> 00:21:48,720
ON WEDNESDAY.

348
00:21:48,720 --> 00:21:50,030
WE GET IT OFF TOMORROW.

349
00:21:50,030 --> 00:21:53,580
>> I'LL JUST ADD FROM IN ANTARES SITE.

350
00:21:53,580 --> 00:21:56,650
AS OF THIS POINT WERE NOT WORKING ANY MAJOR
ISSUES I'M SURE I

351
00:21:56,650 --> 00:21:58,929
COULD HAVE SAID IT ANY BETTER THAN FRANK DID.

352

00:21:58,929 --> 00:22:02,220

WERE ALWAYS NERVOUS BUT WE WOULD HAVE A ROCKET
OUT THERE WHO ARE

353

00:22:02,220 --> 00:22:04,210

CONFIDENT WE WEREN'T READY TO GO.

354

00:22:04,210 --> 00:22:12,270

>> TAKE HER NEXT QUESTION FROM SOCIAL MEDIA.

355

00:22:12,270 --> 00:22:13,270

>>.

356

00:22:13,270 --> 00:22:18,650

[INDISCERNABLE]

357

00:22:18,650 --> 00:22:23,220

>> WHEN WE RECEIVED THE CARGO FROM NASA'S
ALREADY PREPACKED AND

358

00:22:23,220 --> 00:22:27,740

BAGGED OF VARIOUS SIZES OF HIS SENSITIVE EQUIPMENT
ALSO ENCASED

359

00:22:27,740 --> 00:22:29,159

IN FOAM.

360

00:22:29,159 --> 00:22:32,970

WHICH IS GOOD AND BAD WHEN YOU GET UP THERE
HAS TO DO WITH THE

361

00:22:32,970 --> 00:22:34,570

PHONE BUT ALL PACKED IN.

362

00:22:34,570 --> 00:22:37,570

LIKE ALL THOSE BOXES THAT COME TO YOUR FRONT
DOOR YOU GOT TO DO

363

00:22:37,570 --> 00:22:42,500
SOMETHING WITH THE BOXES AFTER YOU OPEN UP
YOUR PRESENCE BUT THEY

364
00:22:42,500 --> 00:22:45,390
DO A VERY GOOD JOB OF THAT IT'S PACKED VERY
TIGHTLY IN THE CYGNUS

365
00:22:45,390 --> 00:22:49,980
SPACECRAFT WITH STRAPS TO HOLD IT IN PLACE.

366
00:22:49,980 --> 00:22:52,940
SO FAR WE'VE HAD VERY VERY GOOD SUCCESS WITH
THE HARDWARE

367
00:22:52,940 --> 00:22:56,059
ARRIVING AS FAR AS I KNOW 100 PERCENT.

368
00:22:56,059 --> 00:22:58,080
SUCCESSFULLY TO THE SPACE STATION.

369
00:22:58,080 --> 00:23:01,740
WHEN ASKED TO TAKE CARGO OFF THE STATION WE
CAN CARRY UP TO ABOUT

370
00:23:01,740 --> 00:23:06,480
3000 KILOGRAMS IF THEY SO DESIRE WHEN WE LEAVE
IN ABOUT 30 DAYS.

371
00:23:06,480 --> 00:23:10,260
THEY ALSO PACK IN FOAM PACKET VERY TIGHTLY
SO IT DOESN'T RATTLE

372
00:23:10,260 --> 00:23:12,929
AROUND INSIDE THE SPACECRAFT AND WE CAN CONTROL
THE CENTER OF

373
00:23:12,929 --> 00:23:16,320
GRAVITY MAKE SURE THAT EVERYTHING IS WHERE
SHOULD BE AS WE

374

00:23:16,320 --> 00:23:25,940

REENTER
THE ATMOSPHERE.

375

00:23:25,940 --> 00:23:26,940

>>.

376

00:23:26,940 --> 00:23:29,590

[INDISCERNABLE]

377

00:23:29,590 --> 00:23:31,900

>> NONE OF THE STAGES ARE REUSABLE.

378

00:23:31,900 --> 00:23:35,240

THE FIRST STAGE DOES FALL INTO THE OCEAN.

379

00:23:35,240 --> 00:23:39,049

THE SECOND STAGE MAY STEP A LITTLE WHILE BUT
ILL NOT VERY LONG.

380

00:23:39,049 --> 00:23:52,760

IT WILL COME DOWN FROM UP THE ATMOSPHERE.

381

00:23:52,760 --> 00:23:53,760

WHEN IT'S FINISHED.

382

00:23:53,760 --> 00:23:58,220

>> FOR FRANK AND JOEL, WE HEAR FROM ORBIT
TO SOME DISCUSSION

383

00:23:58,220 --> 00:24:01,669

ABOUT POSSIBLE SIX-HOUR MISSION.

384

00:24:01,669 --> 00:24:02,669

TO THE ISS.

385

00:24:02,669 --> 00:24:05,960

I WAS WONDERING IF THE TEAM WAS BEING CHALLENGED
TO LOOK AT THAT

386
00:24:05,960 --> 00:24:09,649
AND VIRTUAL DO THINK THAT'S ACTUALLY A SERVICE
NASA IS GOING TO

387
00:24:09,649 --> 00:24:10,649
NEED THE FUTURE?

388
00:24:10,649 --> 00:24:12,099
THANKS A LOT.

389
00:24:12,099 --> 00:24:14,600
>> WE WOULD STILL LIKE TO LOOK AT THAT AS
A POSSIBILITY WE

390
00:24:14,600 --> 00:24:17,179
HAVEN'T HAD THAT REQUIREMENT LAID ON US.

391
00:24:17,179 --> 00:24:20,909
I THINK IT WOULD TAKE SOME ADDITIONAL WORK
ON THE PART OF OUR

392
00:24:20,909 --> 00:24:24,350
STAY SPACECRAFT AS WELL AS NASA'S ABILITY
TO COORDINATE WITH US

393
00:24:24,350 --> 00:24:26,210
TO MAKE THAT HAPPEN.

394
00:24:26,210 --> 00:24:27,970
THERE MAY BE TIME IN THE FUTURE WHERE WE WOULD
LIKE TO GET

395
00:24:27,970 --> 00:24:31,210
SOMETHING TO A STATION SO QUICKLY THAT WE
FIGURE OUT A WAY TO DO

396

00:24:31,210 --> 00:24:32,580
THAT.

397
00:24:32,580 --> 00:24:37,710
PHYSICALLY IT'S POSSIBLE PRACTICALLY IT'S
DIFFICULT.

398
00:24:37,710 --> 00:24:40,820
>> RIGHT NOW IT'S WAS DRIVING THE TIME TO
GET THE SPACE STATION

399
00:24:40,820 --> 00:24:43,370
IS OUR SCIENCE REQUIREMENTS.

400
00:24:43,370 --> 00:24:47,039
WE BEEN ABLE TO MANAGE WITHIN THE REQUIREMENTS
WE'VE HAD.

401
00:24:47,039 --> 00:24:52,710
WITH THE TODAY AS THAT CHANGES WILL WORK WITH
ORBITAL ANY OTHER

402
00:24:52,710 --> 00:24:55,210
PROVIDER TO SEE IF WE CAN SPEED THAT UP FROM
OUR PHYSICS

403
00:24:55,210 --> 00:24:58,710
STANDPOINT YOU CAN DO THAT AND PICK THE RIGHT
DAYS, THE RUSSIANS

404
00:24:58,710 --> 00:25:02,570
GENERALLY DO THAT THE SOY SPACECRAFT IN THE
PROGRESS SPACECRAFT

405
00:25:02,570 --> 00:25:08,470
RIGHT NOW THEIR NEW VEHICLE THAT THERE EARLY
STAGES BUT THE GO

406
00:25:08,470 --> 00:25:11,810
BACK A RENDEZVOUS.

407
00:25:11,810 --> 00:25:15,170
>> JUST ONE THING TO ADD, CHALLENGE OF DOING
THAT THE TIMING IS A

408
00:25:15,170 --> 00:25:17,170
STATION GOES OVERHEAD.

409
00:25:17,170 --> 00:25:19,390
WE HAVE A FIVE MINUTE WINDOW TOMORROW.

410
00:25:19,390 --> 00:25:23,090
WE CAN ACTUALLY ASSIST TO GO ANYWHERE BECAUSE
WE CAN TAKE UP TO

411
00:25:23,090 --> 00:25:24,970
TWO DAYS TO GET TO THE STATION.

412
00:25:24,970 --> 00:25:28,390
IF YOU WANT TO GET THERE AND FOR ORBITS AND
WE BASICALLY STRAIGHT

413
00:25:28,390 --> 00:25:31,390
OVERHEAD YOU MIGHT ONLY BE TO LAUNCH EVERY
THREE DAYS IS TO BE

414
00:25:31,390 --> 00:25:38,059
RIGHT ON THE CENTER.

415
00:25:38,059 --> 00:25:42,330
>> ANOTHER QUESTION?

416
00:25:42,330 --> 00:25:43,330
>>.

417
00:25:43,330 --> 00:25:44,470
[INDISCERNABLE]

418

00:25:44,470 --> 00:25:47,529

>> CAN YOU TALK A LITTLE BIT ABOUT YOUR FUTURE
HOPES FOR THIS

419

00:25:47,529 --> 00:25:48,529

ROCKET?

420

00:25:48,529 --> 00:25:52,000

YOU GET A MORE POWERFUL ROCK HIGHER THRUST
OF THE STEADY

421

00:25:52,000 --> 00:25:56,770

PRODUCTION LINE WITH THESE NEW RD-181 SO I
WOULD LIKE TO KNOW

422

00:25:56,770 --> 00:26:00,600

WHAT KIND OF NEW MISSIONS TO COULD BE ENABLED
BY THIS CONNECT

423

00:26:00,600 --> 00:26:02,760

WERE THE SATELLITES CAN LAUNCH?

424

00:26:02,760 --> 00:26:08,270

>> THE DAY YOU ANNOUNCED A SATELLITE LAUNCH
OF PROTON WHY NOT ON

425

00:26:08,270 --> 00:26:13,690

AND TERRY'S TALK ABOUT THAT WHAT YOU CAN DO
WITH ANTARES.

426

00:26:13,690 --> 00:26:24,419

>> WERE PROPOSING THE
USE OF CYGNUS FOR OTHER APPLICATIONS AND

427

00:26:24,419 --> 00:26:26,190

LOWER ORBIT.

428

00:26:26,190 --> 00:26:29,669

TO INCLUDE SATELLITE SERVICING AND OTHER THINGS
THAT ARE COMING

429

00:26:29,669 --> 00:26:30,760
IN THE FUTURE.

430

00:26:30,760 --> 00:26:33,590
ANTARES WOULD CONTINUE TO BE THE IDEAL LAUNCH
VEHICLE FOR MOST OF

431

00:26:33,590 --> 00:26:35,720
THOSE MISSIONS.

432

00:26:35,720 --> 00:26:40,510
FOR OTHER SPACECRAFT FOR EXAMPLE THE COMMUNICATION
SATELLITES

433

00:26:40,510 --> 00:26:43,960
THAT WE BUILD ARE ALSO IN MY GROUP BUT IN
ORDER TO GET TO

434

00:26:43,960 --> 00:26:47,470
GEOSTATIONARY ORBIT TAKES A DIFFERENT UPPER
STAGE THAN WHAT THE

435

00:26:47,470 --> 00:26:50,900
CURRENT ANTARES HAS ON IT SO WE HAVE TO MODIFY
THE ROCKET MIGHT

436

00:26:50,900 --> 00:26:53,309
CAN TALK ABOUT THE FUTURE OF THAT.

437

00:26:53,309 --> 00:26:57,809
WE LOOK AT THE VARIOUS A NUMBER OF DIFFERENT
VARIATIONS AS A SET

438

00:26:57,809 --> 00:27:00,360
OF CYGNUS CAN BE USED A LOT OF DIFFERENT PURPOSES.

439

00:27:00,360 --> 00:27:03,690
THE TECHNOLOGY THAT WE USE IN THE CYGNUS CAN

ALSO BE USED FOR A

440

00:27:03,690 --> 00:27:06,169

LOT OF DIFFERENT MISSIONS AND A LOT OF DIFFERENT OBJECTIVES AND

441

00:27:06,169 --> 00:27:09,519

WE ARE EVOLVING THAT TO OTHER SPACECRAFT.

442

00:27:09,519 --> 00:27:16,140

>> I DAD THERE'S NOTHING ABOUT THE ANTARES ROCKET THAT MAKES IT

443

00:27:16,140 --> 00:27:21,909

UNIQUE TO THE CRS MISSION CERTAINLY WE'VE GOT ASPIRATIONS TO

444

00:27:21,909 --> 00:27:27,240

MARKET AND SELL IT FOR OTHER SATELLITE APPLICATIONS.

445

00:27:27,240 --> 00:27:30,620

ANYTHING IN THE MEDIUM CLASS.

446

00:27:30,620 --> 00:27:34,830

AS FRANK SAID, ONE OF THOSE APPLICATIONS WOULD REQUIRE

447

00:27:34,830 --> 00:27:39,490

DEVELOPMENT OF A ALTERNATE UPPER STAGE CAPABILITY.

448

00:27:39,490 --> 00:27:45,240

WE GOT THOUGHTS ON THAT WE COULD PUT IT TO WORK IN THE FUTURE.

449

00:27:45,240 --> 00:27:49,390

AND CERTAINLY IN OUR CURRENT CONFIGURATION, LOOKING AT NASA

450

00:27:49,390 --> 00:27:55,580

SCIENCE MISSIONS, CERTAIN COMMERCIAL OPPORTUNITIES
THAT MAY

451

00:27:55,580 --> 00:27:56,580
EMERGE.

452

00:27:56,580 --> 00:28:03,169
I THINK IN ALL CASES, SUCCESSFUL FLIGHT IS
GOING TO BE AN ENTRY

453

00:28:03,169 --> 00:28:05,940
REQUIREMENT TO ANY OF THAT AND SO THAT'S WHY
WE HAVE BEEN

454

00:28:05,940 --> 00:28:10,820
SQUARELY FOCUSED ON OA-5 MISSION COMING UP
BUT CERTAINLY THE

455

00:28:10,820 --> 00:28:14,359
FUTURE LOOKING TO DO MORE WITH ANTARES AND
JUST ERS.

456

00:28:14,359 --> 00:28:18,980
>> WERE GOING TO GO TAKE A QUESTION FROM THE
PHONE FIRST AND THEN

457

00:28:18,980 --> 00:28:29,009
WE'LL GO APPEAR IN THE FRONT.

458

00:28:29,009 --> 00:28:35,750
>> I HAVE TWO QUESTIONS.

459

00:28:35,750 --> 00:28:44,750
THE FIRST IS FOR MR.

460

00:28:44,750 --> 00:28:46,140
NASH.

461

00:28:46,140 --> 00:29:02,010

AFTER THE ACCIDENT THERE WAS QUITE A CONTROVERSY
OVER REPAIRS.

462

00:29:02,010 --> 00:29:04,160
[INDISCERNABLE]

463

00:29:04,160 --> 00:29:06,440
>> WE WORK THROUGH THAT.

464

00:29:06,440 --> 00:29:09,490
WE ARE COVERED BY INSURANCE.

465

00:29:09,490 --> 00:29:13,929
WHAT WE BELIEVE NATIONAL POSSIBLE DAMAGES.

466

00:29:13,929 --> 00:29:20,399
HAVE THAT IN OUR AGREEMENTS WITH ORBITAL A
2K AND WITH

467

00:29:20,399 --> 00:29:26,729
CONCURRENCE FROM NASA.

468

00:29:26,729 --> 00:29:30,309
>> QUESTION DOWN FRONT HERE.

469

00:29:30,309 --> 00:29:34,260
>> JEREMY COX.

470

00:29:34,260 --> 00:29:40,000
YOU ALL TALKED ABOUT THE HOT FIRE TEST OCCURRING
BUT THAT THESE

471

00:29:40,000 --> 00:29:45,679
ARE NEW MOTORS BEING USED FOR THE FIRST TIME
WITH THIS PARTICULAR

472

00:29:45,679 --> 00:29:51,240
SPACECRAFT TAX IS UNUSUAL NOT TO HAVE A TEST
FLIGHT UNDER THE

473

00:29:51,240 --> 00:29:52,530

CIRCUMSTANCES?

474

00:29:52,530 --> 00:29:57,200

>> I DON'T THINK IT'S UNUSUAL.

475

00:29:57,200 --> 00:30:01,220

WE CERTAINLY FEEL LIKE THAT WE FIRST OF ALL
THE ENGINES

476

00:30:01,220 --> 00:30:03,760

THEMSELVES ARE ALL TESTED.

477

00:30:03,760 --> 00:30:07,549

TO THE FULL FLIGHT DUTY CYCLE BEFORE THE DELIVERED
TO US.

478

00:30:07,549 --> 00:30:13,370

AND THEN THE STAGE TEST THAT WE CONDUCTED
BACK IN MAY, IS A FULL

479

00:30:13,370 --> 00:30:18,210

INTEGRATED TEST OF A FULLY FLIGHT LIKE FIRST
STAGE.

480

00:30:18,210 --> 00:30:20,580

PROVIDES US SIGNIFICANT DATA.

481

00:30:20,580 --> 00:30:22,169

A TON OF DATA.

482

00:30:22,169 --> 00:30:25,669

INCLUDING EXTRA INSTRUMENTATION THAT WE ADDED
JUST FOR THE TEST

483

00:30:25,669 --> 00:30:28,919

THAT THE ENVOY COULD PUT ON A FLIGHT VEHICLE.

484
00:30:28,919 --> 00:30:31,880
WE SPENT A LOT OF TIME DIGGING THROUGH IT.

485
00:30:31,880 --> 00:30:36,700
WERE COMPLETE CONFIDENT THAT THAT GAVE US
THE INFORMATION AND THE

486
00:30:36,700 --> 00:30:41,450
DATA THAT WE NEEDED TO REALLY ASSURE OURSELVES
THAT THE VEHICLES

487
00:30:41,450 --> 00:30:45,820
READY TO FLY.

488
00:30:45,820 --> 00:30:49,299
>> THE FIRST STAGE HAS BEEN CHANGED BUT WE
UNDERSTAND THE CHANGES

489
00:30:49,299 --> 00:30:53,130
WE COLLECT ALL THE TESTS COVERED THE RISK
THAT PEOPLE HAVE BEEN

490
00:30:53,130 --> 00:30:56,480
ABLE TO THINK OF THAT WE WOULD HAVE TO ADDRESS.

491
00:30:56,480 --> 00:30:59,950
WE HAVE A LOT OF EXPENSE PEOPLE IN THE PROGRAM
WHO ARE HAVE FLOWN

492
00:30:59,950 --> 00:31:02,909
ROCKETS FOR THE FIRST TIME AND THESE ENGINES
HAVE FLOWED SLIGHTLY

493
00:31:02,909 --> 00:31:05,720
DIFFERENT VARIATIONS ON OTHER ROCKETS.

494
00:31:05,720 --> 00:31:08,860
AS FAR AS EVERYTHING FROM THE FIRST STAGE
UP, THE CHANGES OF THAT

495
00:31:08,860 --> 00:31:12,820
ARE VERY MINOR SPACECRAFT ITSELF IS DIFFERENT
THAN WHAT WE WERE

496
00:31:12,820 --> 00:31:13,980
FLYING.

497
00:31:13,980 --> 00:31:17,710
BUT WE FLOWN TWICE ON OTHER LAUNCH VEHICLE
SO WE FEEL VERY

498
00:31:17,710 --> 00:31:21,029
COMFORTABLE THAT THE ENTIRE SYSTEM HAS BEEN
WRUNG OUT WE DO

499
00:31:21,029 --> 00:31:23,019
UNDERSTAND THE RISK.

500
00:31:23,019 --> 00:31:27,910
WE HAVE A LOT OF CONFIDENCE IS GOING TO WORK
AS DESIGNED.

501
00:31:27,910 --> 00:31:31,950
>> NASA HAS BEEN INTEGRATED WITH ORBITAL ATK'S
TEAM WE'VE HAD

502
00:31:31,950 --> 00:31:37,240
PEOPLE FROM ENGINE EXPERTS PEOPLE FROM THE
LAUNCH SERVICE PROGRAM

503
00:31:37,240 --> 00:31:42,240
OF KENNEDY SPACE CENTER TRAVELED TO RUSSIA
WITH THE TEAM WE SEE

504
00:31:42,240 --> 00:31:43,300
CONFIDENCE.

505
00:31:43,300 --> 00:31:50,570

>> TAKE A QUESTION YOU WILL START ONE DOWN
IN THE MIDDLE HERE.

506

00:31:50,570 --> 00:31:51,570

>>.

507

00:31:51,570 --> 00:31:53,070

[INDISCERNABLE]

508

00:31:53,070 --> 00:32:02,870

>> COULD YOU LAUNCH CUBESATS WITH ANY UNUSED
CARGO WEIGHT, AND

509

00:32:02,870 --> 00:32:07,840

NUMBER TWO, YOU HAVE THE SAPPHIRE EXPERIMENT
ON THE PREVIOUS

510

00:32:07,840 --> 00:32:12,090

LAUNCH IT WOULD BE INTERESTING TO KNOW THE
RESULTS OF THAT IN HIS

511

00:32:12,090 --> 00:32:18,179

RIGHT FOLLOW ON THIS CURRENT FLIGHT.

512

00:32:18,179 --> 00:32:21,309

>> AS WE SHOW THE VIDEO WE DID HAVE SAPPHIRE
THE PREVIOUS

513

00:32:21,309 --> 00:32:22,309

MISSION.

514

00:32:22,309 --> 00:32:25,750

WE HAVE A VERY SIMILAR EXPERIMENT ON THIS
MISSION ALSO.

515

00:32:25,750 --> 00:32:28,789

AS I MENTIONED WERE GOING TO CONDUCT SHORTLY
AFTER ON BIRTHING

516

00:32:28,789 --> 00:32:30,529
THE STATION.

517
00:32:30,529 --> 00:32:34,139
TAKE AS FEW DAYS TO DOWNLOAD THE DATA FROM
THAT THE VIDEO ETC.

518
00:33:03,010 --> 00:32:35,139
A

519
00:33:03,010 --> 00:33:04,320
ORBIT LIFE.

520
00:33:04,320 --> 00:33:08,570
BUT WILL BE WELL AWAY FROM THE STATION BY
THE TIME THAT OCCURS.

521
00:33:08,570 --> 00:33:11,870
IT SHOULD BE VERY EXCITING TIME FOR THE FOLKS
WHO HAVE BUILT

522
00:33:11,870 --> 00:33:15,570
EXPERIMENTS THAT ARE ON THOSE CUBESATS.

523
00:33:15,570 --> 00:33:17,419
>> WE CAN DO THAT ON EVERY MISSION.

524
00:33:17,419 --> 00:33:20,659
IF WE ARE ASKED TO DO SO.

525
00:33:20,659 --> 00:33:24,730
>> 45 KILOMETERS ABOVE THE SPACE STATION THAT
WAS A DIRECT

526
00:33:24,730 --> 00:33:28,460
REQUEST FROM THE SCIENCE RESEARCH COMMUNITY
FOR THE OWNERS OF THE

527
00:33:28,460 --> 00:33:30,039

SATELLITE.

528
00:33:30,039 --> 00:33:32,870
WE NEED MORE OVER LIFETIME CAN YOU GO ABOVE
ISS.

529
00:33:32,870 --> 00:33:35,000
WE WORKED WITH THE DIFFERENT TEAMS.

530
00:33:35,000 --> 00:33:40,710
WORKED WITH ORBITAL ATK TO MAKE SURE WE COULD
GET WHAT WE NEEDED.

531
00:33:40,710 --> 00:33:43,529
IT'S A HUGE SUCCESS STORY.

532
00:33:43,529 --> 00:33:45,289
>> REASSIGNED SPEAKING BEFORE THIS MEETING
IN WHICH WE HAD

533
00:33:45,289 --> 00:33:48,870
INVESTIGATORS TALK ABOUT THOSE TWO INVESTIGATIONS
SPECIFICALLY

534
00:33:48,870 --> 00:33:52,820
CAN CATCH THAT ON YOUTUBE AND ALSO HAVE THOSE
INVESTIGATORS

535
00:33:52,820 --> 00:33:55,409
TOMORROW FOR REPORTERS THAT WANT TO DO ONE-ON-ONE
INTERVIEWS.

536
00:33:55,409 --> 00:33:57,779
YOU CAN FIND OUT THROUGH THE MEDIA CHECKING
STATION IF YOU'RE

537
00:33:57,779 --> 00:34:08,350
INTERESTED IN LEARNING MORE ABOUT THOSE AS
WELL.

538

00:34:08,350 --> 00:34:09,350

>>.

539

00:34:09,350 --> 00:34:10,350

[INDISCERNABLE]

540

00:34:10,350 --> 00:34:13,500

>> THE UPGRADE ANTARES WHAT IS THE RECYCLE
TIME LOOK LIKE IN THE

541

00:34:13,500 --> 00:34:16,260

CASE OF A HOLD DURING THE TERMINAL COUNT.

542

00:34:16,260 --> 00:34:19,470

DO YOU HAVE THE OPPORTUNITY TO SET THE LAUNCH
VEHICLE AND TRY

543

00:34:19,470 --> 00:34:22,130

MORE THAN ONCE THAT FIVE MINUTES IS A KIND
OF A ONE AND DONE

544

00:34:22,130 --> 00:34:24,250

SCENARIO?

545

00:34:24,250 --> 00:34:27,730

>> REALISTICALLY ONCE WE GET THAT FAR DOWN
IN THE COUNT WE WILL

546

00:34:27,730 --> 00:34:30,380

SELECT A LAUNCH TIME.

547

00:34:30,380 --> 00:34:35,050

IT'S VERY UNUSUAL THAT WOULD HAVE A SITUATION
WHERE A ONE OR TWO

548

00:34:35,050 --> 00:34:39,460

MINUTE HOLD WOULD SAVE THE DAY BUT IT CERTAINLY
ISN'T OUT OF THE

549

00:34:39,460 --> 00:34:40,980

QUESTION.

550

00:34:40,980 --> 00:34:45,290

WE CERTAINLY USE THAT FIVE MINUTE WINDOW TO
WORK AROUND COLAS AND

551

00:34:45,290 --> 00:34:46,950

OTHER THINGS LIKE THAT.

552

00:34:46,950 --> 00:34:48,640

BUT IT'S PRETTY TIGHT.

553

00:34:48,640 --> 00:34:51,730

HE MISSED THAT FIVE MINUTE WINDOW AND WERE
DONE FOR THE DAY BUT

554

00:34:51,730 --> 00:34:55,140

WE DO HAVE THE CAPABILITY TO TURN AROUND AFTER
SCRUB DALE AND HIS

555

00:34:55,140 --> 00:34:59,090

TEAM HAVE ALL THE RIGHT COMMODITIES AND EVERYTHING
READY TO GO WE

556

00:34:59,090 --> 00:35:02,610

SHOULD BE ABLE TO GIVE IT A SHOT THE NEXT
DAY.

557

00:35:02,610 --> 00:35:06,700

>> PART OF WHAT WE TOOK ADVANTAGE OF THE DOWN
TIME TO REALLY

558

00:35:06,700 --> 00:35:13,431

UPGRADE OUR CAPABILITY SO POTENTIALLY WE CAN
GO RECYCLE 24 HOUR

559

00:35:13,431 --> 00:35:15,750

RECYCLE DAY AFTER DAY AFTER DAY.

560

00:35:15,750 --> 00:35:19,040

THE PEOPLE TIMEOUT BEFORE THE FACILITIES.

561

00:35:19,040 --> 00:35:22,730

AND THAT'S THE WAY YOU WANT IT.

562

00:35:22,730 --> 00:35:24,660

>> WE CAN'T BACKUP IN THE COUNT DOWN.

563

00:35:24,660 --> 00:35:28,420

IF THAT'S WHAT YOU'RE TRYING TO GET TO.

564

00:35:28,420 --> 00:35:32,400

FOR SAFETY AND RELIABILITY AND HARDWARE REASONS
WE JUST KEEP

565

00:35:32,400 --> 00:35:37,160

CONTINUING.

566

00:35:37,160 --> 00:36:00,920

FORWARD INTO WE GET IT.

567

00:36:00,920 --> 00:36:01,920

>>.

568

00:36:01,920 --> 00:36:05,680

[INDISCERNABLE]

569

00:36:05,680 --> 00:36:22,940

>> I WANT TO ASK ABOUT FAA SIGNIFICANT HIKE
AND HOW MUCH

570

00:36:22,940 --> 00:36:33,650

LIABILITY INSURANCE YOU HAVE TO CARE FOR THIS
FLIGHT.

571

00:36:33,650 --> 00:36:34,840

[INDISCERNABLE]

572

00:36:34,840 --> 00:36:40,920

>> ARE NOT FAMILIAR WITH THE ISSUE YOU'RE
ASKING ABOUT ON THE

573

00:36:40,920 --> 00:36:43,120

INSURANCE REQUIREMENT ON THE LAUNCH LICENSE.

574

00:36:43,120 --> 00:36:46,160

I THINK IT'S PRETTY MUCH THE SAME AS IT'S
BEEN ON PREVIOUS

575

00:36:46,160 --> 00:36:48,090

MISSIONS.

576

00:36:48,090 --> 00:36:52,870

MAYBE SOME CHANGES BEGAN TO CRS TO BUT RIGHT
NOW THE LICENSING IS

577

00:36:52,870 --> 00:36:57,270

THE SAME AS IT HAS BEEN AN ANALYSIS BEING
CONDUCTED BY BOTH THE

578

00:36:57,270 --> 00:37:00,221

FAA AND THE RANGE BETTER THAN IT'S BEEN IN
THE PAST MORE

579

00:37:00,221 --> 00:37:04,080

SOPHISTICATED THE BROAD EFFORT INTO GETTING
READY FOR THIS

580

00:37:04,080 --> 00:37:07,510

PARTICULAR LAUNCH AND INCREASING OUR LAUNCH
PROBABILITY.

581

00:37:07,510 --> 00:37:10,590

VERY HAPPY WITH THE TEAMWORK BETWEEN ALL OF
THE PARTIES INVOLVED

582

00:37:10,590 --> 00:37:12,770

HERE.

583

00:37:12,770 --> 00:37:17,810

>> ON THE MANIFEST QUESTION.

584

00:37:17,810 --> 00:37:21,700

WE'VE REMOVED ALL THAT BALLAST REPLACED IT
WITH A SURPRISE

585

00:37:21,700 --> 00:37:27,100

THROUGH CLOTHING SOME COMPUTER RESOURCES UPGRADE
LAPTOPS AND THEN

586

00:37:27,100 --> 00:37:34,080

SOME VERY SMALL AMOUNT OF EVA HARDWARE.

587

00:37:34,080 --> 00:37:39,330

>> GO DOWN HERE.

588

00:37:39,330 --> 00:37:42,990

>> MY QUESTION ABOUT THE SAPPHIRE EXPERIMENT.

589

00:37:42,990 --> 00:37:50,940

ARE THERE ANY SPECIAL CONSIDERATIONS THAT
THE ISS CREW HAS TO

590

00:37:50,940 --> 00:37:57,330

MAKE WHEN LOADING THE CYGNUS BACKUP FOR DEEPER
THING AND TO NOT

591

00:37:57,330 --> 00:37:59,130

MESS WITH THAT EXPERIMENT.

592

00:37:59,130 --> 00:38:09,160

AND IS THERE ANY WHERE THERE BE ANY ADVERSE
EFFECTS THAT

593

00:38:09,160 --> 00:38:16,450

EXPERIMENT SET THE WHOLE ON FIRE BEFORE REENTRY?

594

00:38:16,450 --> 00:38:19,930

>> THE WEATHER EXPERIMENT IS DESIGNED AND
BEEN TESTED EXTENSIVELY

595

00:38:19,930 --> 00:38:23,990

IT CANNOT ACTIVATE ITSELF PRIOR TO LEAVING
THE SPACE STATION.

596

00:38:23,990 --> 00:38:28,250

IT HAS SEVERAL INHIBITS TO KEEP IT FROM RECEIVING
POWER OR BEING

597

00:38:28,250 --> 00:38:31,080

ABLE TO IGNITE ANY OF THE MATERIAL.

598

00:38:31,080 --> 00:38:33,870

WERE VERY CONFIDENT THAT'S GOING TO WORK THAT
WAY.

599

00:38:33,870 --> 00:38:37,760

NASA TEAM DESIGNED IT THAT WAY INTEGRATED
INTO THE STATION WITH

600

00:38:37,760 --> 00:38:40,980

THE RIGHT SPACE VEHICLE WITH THE RIGHT SAFEGUARDS.

601

00:38:40,980 --> 00:38:46,380

WHILE THE CREW HAS JUST MAKE SURE THAT THE
VENTILATION PADS

602

00:38:46,380 --> 00:38:48,600

REMAIN OPEN AND THEY STAY OUT OF THE KEEP
OUT ZONES WHEN THEY

603

00:38:48,600 --> 00:38:54,810

LOAD THE CARGO AND OTHERWISE THEY DON'T NEED
TO TOUCH IT OR DO

604

00:38:54,810 --> 00:38:56,370

ANYTHING TO MAKE IT READY TO ACTIVATE.

605

00:38:56,370 --> 00:38:58,990

OR RELIEVE THE STATION.

606

00:38:58,990 --> 00:39:02,670

WE FEEL LIKE YOU WILL GO TO SICK DID LAST
TIME.

607

00:39:02,670 --> 00:39:14,820

>> WE HAD NO ISSUES IN THE LAST MISSION.

608

00:39:14,820 --> 00:39:20,350

>> WHY WERE THAT MANY VOTERS AVAILABLE THE
DAMAGE TO THE PAD

609

00:39:20,350 --> 00:39:23,140

AFTER THE DISASTER?

610

00:39:23,140 --> 00:39:26,980

>> THERE WERE LOTS OF PHOTOS.

611

00:39:26,980 --> 00:39:34,620

[LAUGHTER] I CAN'T HELP YOU THERE.

612

00:39:34,620 --> 00:39:36,180

I FOUND THEM.

613

00:39:36,180 --> 00:39:43,990

>> I DON'T KNOW WHERE YOU LOOKED BUT I SAW
PHOTOS EVERYWHERE.

614

00:39:43,990 --> 00:39:51,080

>> DO WE HAVE ANY OTHER QUESTIONS FROM THE
AUDIENCE?

615

00:39:51,080 --> 00:39:56,280
>> WE HAVE AN ELECTION GOING ON.

616
00:39:56,280 --> 00:40:03,800
THIS LAUNCHES GOING TO BE LOOKED AT ALL OVER
THE PLACE INCLUDING

617
00:40:03,800 --> 00:40:04,800
OVER IN DC.

618
00:40:04,800 --> 00:40:09,310
WHAT YOU HOPE THAT FOLKS OVER IN DC TO TRY
TO GO AHEAD AND GET A

619
00:40:09,310 --> 00:40:12,890
BUDGET TOGETHER FOR ALL THIS ARE GOING TO
GO AHEAD AND LOOK AT IT

620
00:40:12,890 --> 00:40:17,200
803 AND WAS THE THING WITH THE THOUGHTS GOING
TO BE?

621
00:40:17,200 --> 00:40:21,620
>> I SPENT A LOT OF TIME LAUNCHING SHUTTLES
IN FLORIDA.

622
00:40:21,620 --> 00:40:26,950
FRANK AND IF YOU TIMES SEVERAL TIMES.

623
00:40:26,950 --> 00:40:30,990
THERE ARE TREMENDOUS ADVANTAGES TO BEING WITHIN
DRIVING DISTANCE

624
00:40:30,990 --> 00:40:32,370
OF WASHINGTON D.C..

625
00:40:32,370 --> 00:40:34,860
I THINK WE HAVE TWO BUSES NOW COMING DOWN

626

00:40:34,860 --> 00:40:39,990
FROM THE SEA WITH STAFFERS WHO ARE VERY VERY
INTERESTED.

627
00:40:39,990 --> 00:40:44,520
IT IS ALWAYS A TREMENDOUS ADVANTAGE TO HAVE
SOMEONE COME DOWN AND

628
00:40:44,520 --> 00:40:46,250
EXPERIENCE LAUNCH VERSUS SING IT.

629
00:40:46,250 --> 00:40:47,700
AS ALL OF YOU KNOW.

630
00:40:47,700 --> 00:40:50,020
THERE'S A HUGE DIFFERENCE.

631
00:40:50,020 --> 00:40:51,450
VERY VERY CONFIDENT.

632
00:40:51,450 --> 00:40:56,600
WE THINK WILL PUT ON A GREAT SHOW AND NIGHTTIME
LAUNCH ALWAYS

633
00:40:56,600 --> 00:40:58,420
REALLY GOOD TOO.

634
00:40:58,420 --> 00:41:01,150
WE HOPE IT PUTS ON A GOOD SHOW FOR EVERYONE.

635
00:41:01,150 --> 00:41:07,240
THEY ENJOY SOME OF THE EVERYONE ENJOYS IT.

636
00:41:07,240 --> 00:41:12,290
WE GET A WIDE VIEWING ANGLE RELOAD PEOPLE
GET TO GO OUT ON

637
00:41:12,290 --> 00:41:15,990
CAPITOL HILL OR ELSEWHERE IN THE NORTHEAST

AND HAVE OUR

638
00:41:15,990 --> 00:41:19,570
MIDATLANTIC AND HAVE A GOOD LOOK AT THE LAUNCH.

639
00:41:19,570 --> 00:41:23,080
>> YOU GOT OVER HUNDRED PEOPLE COMING FROM
THE HILL ON

640
00:41:23,080 --> 00:41:24,080
WASHINGTON.

641
00:41:24,080 --> 00:41:27,730
>> THERE'LL BE PLENTY OF PEOPLE FROM WASHINGTON
HERE TO WATCH IT.

642
00:41:27,730 --> 00:41:30,460
FOR THOSE DOZEN OR SO PEOPLE IN WASHINGTON
ARE WATCHING THIS

643
00:41:30,460 --> 00:41:35,420
PRESS CONFERENCE, YOU GO ANYWHERE ON A HIGH
HILL AND LOOK TO THE

644
00:41:35,420 --> 00:41:47,110
SOUTHEAST ABOUT 8:05 PM.

645
00:41:47,110 --> 00:41:53,619
>> TIME FOR A FEW MORE QUESTIONS.

646
00:41:53,619 --> 00:42:00,430
>> GIVEN THE STATE INVESTMENT YOU TALKED ABOUT
WHERE THE

647
00:42:00,430 --> 00:42:03,400
OPPORTUNITIES THAT THIS OFFICE FOR THE STATE.

648
00:42:03,400 --> 00:42:11,550
YOU THINK IS A BUSINESS IN THE FACILITY.

649
00:42:11,550 --> 00:42:15,020
>> WALLOPS ALWAYS HAD A SIGNIFICANT IMPACT
HERE BUT IT IS BEEN

650
00:42:15,020 --> 00:42:20,160
POWERFUL EVEN IN THE FOUR YEARS THAT I'VE
BEEN HERE THAT IMPACT

651
00:42:20,160 --> 00:42:26,820
ADDITIONAL WORK EMPLOYEES OVERLAY DECAY OURSELVES
AND OUR

652
00:42:26,820 --> 00:42:33,930
SUPPLIERS BEGAN TO MIGRATE APPEAR HAD ON THE
AREA.

653
00:42:33,930 --> 00:42:40,600
IF YOU LOOK AT THIS ROCK I THINK WE COULD
GET VERY BUSY HERE IN

654
00:42:40,600 --> 00:42:42,240
THE NEXT FEW YEARS.

655
00:42:42,240 --> 00:42:47,870
THIS IS NOT ME, THIS IS THE CHAMBER OF COMMERCE
STATES THAT EACH

656
00:42:47,870 --> 00:42:50,360
LAUNCH IS EQUIVALENT TO THE PONY SWIM.

657
00:42:50,360 --> 00:42:58,420
THOSE OF YOU WHO ARE FAMILIAR THAT'S THE BIGGEST
EVENT HERE.

658
00:42:58,420 --> 00:43:04,160
ONE THING YOU ASKED ABOUT CUBESATS BUT ONE
THING THAT WE AGREED

659

00:43:04,160 --> 00:43:10,210
TO IN A LONG-TERM AGREEMENT WAS ORBITAL ATK
WE IN VIRGINIA GET

660
00:43:10,210 --> 00:43:16,320
THE EQUIVALENT OF 12 CUBESATS EACH LAUNCH
AFTER WE GET NOT RIGHT

661
00:43:16,320 --> 00:43:21,080
NOW BUT AS WE GET THROUGH ALL THE APPROVAL
AND EVERYTHING SAFETY

662
00:43:21,080 --> 00:43:24,240
AND THEY WILL BE ON THE SECOND STAGE.

663
00:43:24,240 --> 00:43:28,800
IT WILL BE A SHORT TIME IN SPACE AND WE ARE
TRYING TO GET THAT TO

664
00:43:28,800 --> 00:43:32,890
POCKET CUBES SO YOU CAN IMAGINE 96 POCKET
CUBES IN EVERY LAUNCH

665
00:43:32,890 --> 00:43:36,930
THE IMPACT THAT WOULD HAVE ON THE STEM AND
OBVIOUSLY VIRGINIA

666
00:43:36,930 --> 00:43:40,830
WILL HAVE A HIGH PREFERENCE FOR THOSE POCKET
CUBES BUT IT WON'T

667
00:43:40,830 --> 00:43:46,550
BE TOO LONG BEFORE WE HAVE EXHAUSTED THE PEOPLE
WANT TO COME IN

668
00:43:46,550 --> 00:43:50,980
VIRGINIA AND I SAID THAT SPREADING OUT WELL
ACROSS THE NATION

669
00:43:50,980 --> 00:43:53,930

MAYBE INTERNATIONALLY SO WERE VERY EXCITED ABOUT THAT.

670
00:43:53,930 --> 00:43:58,090
AND THE COMMITMENT FROM ORBITAL ATK TO LET US PURSUE THAT AS PART

671
00:43:58,090 --> 00:44:07,710
OF THE IMPACT NOT ONLY ECONOMICALLY BUT THE WHOLE STEM.

672
00:44:07,710 --> 00:44:10,060
>> WHAT DALE IS TALKING ABOUT IS NOT SATELLITES BUILT BY

673
00:44:10,060 --> 00:44:13,680
COMPANIES OR LARGE ORGANIZATIONS BUT SATELLITES AND EXPERIENCE

674
00:44:13,680 --> 00:44:16,900
DESIGNED BY STUDENTS ALL THE WAY DOWN TO ELEMENTARY SCHOOL.

675
00:44:16,900 --> 00:44:20,190
LOTS OF HIGH SCHOOL STUDENTS BUILDING STATS COLLEGE STUDENTS AND

676
00:44:20,190 --> 00:44:24,230
SO WE WILL BE EXPOSING OR ENABLING EXPOSURE OF SPACE

677
00:44:24,230 --> 00:44:28,200
EXPERIMENTATION TO PEOPLE ALL THE WAY TO THE SCHOOL SYSTEMS.

678
00:44:28,200 --> 00:44:33,610
SPREADING OUT FROM HERE TO WALLOPS I THINK IT'S A BIG DEAL.

679
00:44:33,610 --> 00:44:40,560

>> WE HAVE TIME FOR ONE MORE SESSION.

680
00:44:40,560 --> 00:44:45,270
>> JUST CURIOUS, WITH THE LAUNCH OF THE ANTARES
LOOK ANY

681
00:44:45,270 --> 00:44:50,530
DIFFERENT FROM THE OLDER VERSIONS.

682
00:44:50,530 --> 00:44:58,040
>> THE THRUST AND WAIT A LITTLE BIT HIGHER
SO MAY COME OFF THE

683
00:44:58,040 --> 00:44:59,040
PAD A LITTLE FASTER.

684
00:44:59,040 --> 00:45:02,730
THE THING COMES OFF AS LONG SURE LITTLE FACTORS
GOING TO BE

685
00:45:02,730 --> 00:45:08,460
NOTICEABLE BUT BEYOND THAT I DON'T THINK YOU'LL
TELL A

686
00:45:08,460 --> 00:45:09,460
DIFFERENCE.

687
00:45:09,460 --> 00:45:13,150
AS I MENTIONED IN MY VIDEO COMMENTARY, ELECTION
BECAUSE OF THE

688
00:45:13,150 --> 00:45:17,650
HIGHER PERFORMING ENGINES WE REALLY NOTICE
IS THE END OF THE

689
00:45:17,650 --> 00:45:18,650
MISSION.

690
00:45:18,650 --> 00:45:21,680

WE'LL HAVE CYGNUS IN ORBIT ABOUT A MINUTE
EARLIER THAN WE WOULD

691

00:45:21,680 --> 00:45:31,570

HAVE ON A PREVIOUS VERSION OF ANTARES.

692

00:45:31,570 --> 00:45:32,980

>> THAT'S ALL WE HAVE TIME FOR TODAY.

693

00:45:32,980 --> 00:45:35,520

I WOULD LIKE TO THANK EVERYONE FOR JOINING
US.

694

00:45:35,520 --> 00:45:38,410

IF YOU'RE ON THE EAST COAST IS A CHANCE YOU
MIGHT GO TO SEE THE

695

00:45:38,410 --> 00:45:39,910

LAUNCH FROM WHERE YOU ARE.

696

00:45:39,910 --> 00:45:42,970

CHECK OUT THE DOING MAPS ONLINE.

697

00:45:42,970 --> 00:45:46,290

YOU CAN FIND THOSE MAPS AND MORE ABOUT THE
MISSION@NASA.GOV SLASH

698

00:45:46,290 --> 00:45:48,770

ORBITAL ATK.

699

00:45:48,770 --> 00:45:51,800

TUNE IN TOMORROW NIGHT LAUNCH COVERAGE BEGINS
AT 7:00 P.M.