



1  
00:00:08,070 --> 00:00:05,590  
inside you know i love this kind of view

2  
00:00:09,430 --> 00:00:08,080  
in the control center so on one screen

3  
00:00:10,470 --> 00:00:09,440  
you're seeing the what the crew is

4  
00:00:11,830 --> 00:00:10,480  
seeing up there and you're seeing the

5  
00:00:14,310 --> 00:00:11,840  
earth in the background the cygnus and

6  
00:00:16,470 --> 00:00:14,320  
here's uh koichi on the right mike mike

7  
00:00:19,109 --> 00:00:16,480  
hopkins on the left

8  
00:00:20,950 --> 00:00:19,119  
down below i'm sure is rick mastracchio

9  
00:00:22,230 --> 00:00:20,960  
here's koichi's probably looking okay

10  
00:00:24,150 --> 00:00:22,240  
this is what i see here this is what i

11  
00:00:27,189 --> 00:00:24,160  
see on this screen trying to make sure

12  
00:00:31,669 --> 00:00:29,990  
station number two at the price range of

13  
00:00:33,750 --> 00:00:31,679

42

14

00:00:36,470 --> 00:00:33,760

the aft white tracking light is within

15

00:00:38,470 --> 00:00:36,480

the approach crew aboard corridor on

16

00:00:42,310 --> 00:00:38,480

both monitors and the vehicle size

17

00:00:43,510 --> 00:00:42,320

matches the outline on both monitors

18

00:00:46,389 --> 00:00:43,520

and the

19

00:00:52,630 --> 00:00:46,399

looking at the uh p1 lower outboard

20

00:00:57,270 --> 00:00:55,110

yeah after the

21

00:01:01,189 --> 00:00:57,280

track and right position is

22

00:01:03,990 --> 00:01:01,199

in the circle the stroke tracker

23

00:01:05,670 --> 00:01:04,000

and the stroke tracker shows

24

00:01:06,950 --> 00:01:05,680

about the

25

00:01:09,670 --> 00:01:06,960

quarter

26

00:01:13,510 --> 00:01:09,680

width to the port

27

00:01:16,230 --> 00:01:13,520

and that's on the p1 lower outboard

28

00:01:22,550 --> 00:01:18,630

the situation is the same on the

29

00:01:25,190 --> 00:01:22,560

camera 7 p1 lower inboard except

30

00:01:27,830 --> 00:01:25,200

that the strobe tracker

31

00:01:30,149 --> 00:01:27,840

position is

32

00:01:31,670 --> 00:01:30,159

a little bit to the port

33

00:01:36,469 --> 00:01:31,680

less than quarter

34

00:01:39,749 --> 00:01:38,550

cygnus is currently 30 meters in holding

35

00:01:41,429 --> 00:01:39,759

away from the international space

36

00:01:43,109 --> 00:01:41,439

station as you can see here the distance

37

00:01:44,550 --> 00:01:43,119

not very far between the arm and cygnus

38

00:01:47,190 --> 00:01:44,560

what's happening now in mission control

39

00:01:51,109 --> 00:01:49,270

is that the um

40

00:01:53,350 --> 00:01:51,119

the uh flight director brian smith here

41

00:01:54,789 --> 00:01:53,360

is doing a go no-go poll for departure

42

00:01:56,389 --> 00:01:54,799

from 30 meters

43

00:01:58,789 --> 00:01:56,399

inside the cupola right now is koichi

44

00:02:00,310 --> 00:01:58,799

wakata and rick mastracchio is uh

45

00:02:01,350 --> 00:02:00,320

currently inside there taking some a

46

00:02:03,830 --> 00:02:01,360

video

47

00:02:05,670 --> 00:02:03,840

of cygnus

48

00:02:08,309 --> 00:02:05,680

so we've mostly seen mike hopkins and

49

00:02:10,389 --> 00:02:08,319

koichi wakata um because they are the

50

00:02:12,550 --> 00:02:10,399

pair you know the robotic arm pair in

51  
00:02:14,309 --> 00:02:12,560  
the in the cygnus pair that are gonna

52  
00:02:16,470 --> 00:02:14,319  
actually capture the cygnus

53  
00:02:18,869 --> 00:02:16,480  
but rick is their backup and he's down

54  
00:02:20,150 --> 00:02:18,879  
below or fitting in when he can and and

55  
00:02:21,510 --> 00:02:20,160  
he's the person in charge of kind of

56  
00:02:23,510 --> 00:02:21,520  
looking at the big picture while these

57  
00:02:24,630 --> 00:02:23,520  
two are so focused is there anything

58  
00:02:25,990 --> 00:02:24,640  
that they're missing anything that

59  
00:02:28,150 --> 00:02:26,000  
they're not seeing

60  
00:02:30,070 --> 00:02:28,160  
and uh and so that's rick's job but it's

61  
00:02:32,470 --> 00:02:30,080  
also just to uh do some of the

62  
00:02:34,830 --> 00:02:32,480  
photography and capture these images

63  
00:02:38,229 --> 00:02:34,840

which are just simply

64

00:02:41,509 --> 00:02:38,239

tremendous block six in the approach and

65

00:02:41,519 --> 00:02:50,869

we're trying to stay

66

00:02:56,470 --> 00:02:53,589

okay uh ricky copy that go for step

67

00:02:58,390 --> 00:02:56,480

three of procedure one decimal one one

68

00:03:00,869 --> 00:02:58,400

zero

69

00:03:02,790 --> 00:03:00,879

so i just gave them a go for uh the

70

00:03:04,949 --> 00:03:02,800

setup for capture and this means that

71

00:03:07,030 --> 00:03:04,959

the crew is going to go over

72

00:03:08,710 --> 00:03:07,040

all the things that they um you know

73

00:03:10,149 --> 00:03:08,720

wanted to make sure the the robotic arm

74

00:03:11,030 --> 00:03:10,159

the cameras are pointing at the right

75

00:03:13,990 --> 00:03:11,040

place

76  
00:03:15,910 --> 00:03:14,000  
and that uh they're also just reviewing

77  
00:03:17,750 --> 00:03:15,920  
their what if this happens what if this

78  
00:03:20,550 --> 00:03:17,760  
happens cue cards making sure that

79  
00:03:22,550 --> 00:03:20,560  
they're both on the same page um this i

80  
00:03:24,229 --> 00:03:22,560  
like this view here where you actually

81  
00:03:27,589 --> 00:03:24,239  
see now what used to be just a little

82  
00:03:29,509 --> 00:03:27,599  
dot is now looking like a real supply

83  
00:03:31,670 --> 00:03:29,519  
ship it's it's barrel shaped with the

84  
00:03:33,750 --> 00:03:31,680  
solar array wings

85  
00:03:40,869 --> 00:03:33,760  
and then that grapple pin is right on

86  
00:03:45,030 --> 00:03:42,149  
you can see in the bottom right hand

87  
00:03:47,190 --> 00:03:45,040  
corner the numbers it says 30 there and

88  
00:03:49,910 --> 00:03:47,200

that is 30 meters away about 100 feet

89

00:03:51,670 --> 00:03:49,920

away and they're so close that the crew

90

00:03:53,910 --> 00:03:51,680

can look out the window and know you

91

00:03:55,110 --> 00:03:53,920

know the cygnus is in a reasonable place

92

00:03:57,110 --> 00:03:55,120

and that's why they've put away the

93

00:03:59,589 --> 00:03:57,120

radar gun because we don't need that

94

00:04:31,909 --> 00:03:59,599

confirmation of of the mathematics and

95

00:04:35,270 --> 00:04:33,510

the team here confirming that cygnus has

96

00:04:37,030 --> 00:04:35,280

initiated its final approach so this is

97

00:04:38,230 --> 00:04:37,040

where it'll move from 30 meters up to 10

98

00:04:40,230 --> 00:04:38,240

meters and that'll be the final hole

99

00:04:41,749 --> 00:04:40,240

point the capture point

100

00:04:43,670 --> 00:04:41,759

so josh looking at the graphic here we

101  
00:04:46,310 --> 00:04:43,680  
can see the cygnus coming into place so

102  
00:04:50,629 --> 00:04:46,320  
it's come in from 30 meters and it's on

103  
00:04:51,990 --> 00:04:50,639  
its way to 15 or to 10 meters okay so 50

104  
00:04:53,830 --> 00:04:52,000  
uh 30 feet

105  
00:04:56,870 --> 00:04:53,840  
and so you see it's slowly inching

106  
00:04:58,469 --> 00:04:56,880  
closer closer closer closer and and i'm

107  
00:05:01,350 --> 00:04:58,479  
i'm looking at the view on the bottom

108  
00:05:02,950 --> 00:05:01,360  
left there where you're seeing over the

109  
00:05:04,310 --> 00:05:02,960  
mouth of the end effector you're looking

110  
00:05:06,150 --> 00:05:04,320  
at the camera view

111  
00:05:08,469 --> 00:05:06,160  
and you see the gold

112  
00:05:10,469 --> 00:05:08,479  
sort of blob there on the bottom

113  
00:05:12,870 --> 00:05:10,479

that is the actual grapple pin which is

114

00:05:15,270 --> 00:05:12,880

about a foot or so long i mean it's huge

115

00:05:17,029 --> 00:05:15,280

i mean the the grapple fixture is about

116

00:05:19,430 --> 00:05:17,039

as big as like if you chopped me in half

117

00:05:21,430 --> 00:05:19,440

that's how big the grapple picture is

118

00:05:23,270 --> 00:05:21,440

um but right on top of it the black line

119

00:05:24,950 --> 00:05:23,280

that is the target that the camera is

120

00:05:26,150 --> 00:05:24,960

looking at and you can see that it's

121

00:05:27,029 --> 00:05:26,160

gradually approaching the middle of the

122

00:05:28,390 --> 00:05:27,039

screen

123

00:05:30,950 --> 00:05:28,400

if you look in the upper left you're

124

00:05:32,310 --> 00:05:30,960

going to see the cygnus is now looking

125

00:05:33,909 --> 00:05:32,320

like it's right at the level of the

126

00:05:36,390 --> 00:05:33,919

robotic arm and you see that same

127

00:05:39,510 --> 00:05:36,400

picture in some different views these

128

00:05:41,189 --> 00:05:39,520

are graphics that are simulating what we

129

00:05:43,990 --> 00:05:41,199

are sure that the cameras are seeing on

130

00:05:45,590 --> 00:05:44,000

board now unfortunately we are not going

131

00:05:46,870 --> 00:05:45,600

to see the actual video right when they

132

00:05:49,189 --> 00:05:46,880

capture because we don't have that

133

00:05:50,070 --> 00:05:49,199

satellite in play but we'll see a replay

134

00:05:51,830 --> 00:05:50,080

right

135

00:05:53,430 --> 00:05:51,840

well hopefully if the crew sends us some

136

00:05:54,870 --> 00:05:53,440

video yeah that's that's we hate to be

137

00:05:56,550 --> 00:05:54,880

the bearers of bad news but that is

138

00:05:58,469 --> 00:05:56,560

always how things work out sometimes we

139

00:05:59,430 --> 00:05:58,479

don't have video coverage so if we don't

140

00:06:00,710 --> 00:05:59,440

at the point that they do it then we'll

141

00:06:02,070 --> 00:06:00,720

show you this view here and we'll be

142

00:06:03,510 --> 00:06:02,080

able to confirm that it happens but of

143

00:06:09,189 --> 00:06:03,520

course we always like to see things and

144

00:06:41,590 --> 00:06:11,909

half a meter away

145

00:06:47,189 --> 00:06:43,830

so over the pin the canister is on top

146

00:06:47,199 --> 00:07:29,589

waiting for to lasso those snares

147

00:07:34,309 --> 00:07:32,950

we're just standing by for a

148

00:07:43,990 --> 00:07:34,319

capture confirmation coming up here

149

00:07:48,469 --> 00:07:46,710

and at 508 am central time that is

150

00:07:50,710 --> 00:07:48,479

capture confirmed of cygnus and the

151

00:07:52,309 --> 00:07:50,720

orbital one flights the expedition 38

152

00:07:53,670 --> 00:07:52,319

crew has successfully captured this

153

00:07:55,110 --> 00:07:53,680

cargo vehicle

154

00:07:57,270 --> 00:07:55,120

of course great news for the orbital

155

00:07:58,869 --> 00:07:57,280

sciences team up in dulles virginia

156

00:08:00,390 --> 00:07:58,879

their vehicle has been successfully

157

00:08:01,749 --> 00:08:00,400

captured by the crew on board the

158

00:08:03,430 --> 00:08:01,759

international space station on this

159

00:08:05,510 --> 00:08:03,440

first official flight