
NASA
SPACESTATION
LIVE

1
00:00:08,150 --> 00:00:06,309
the next shipment of supplies for the

2
00:00:11,030 --> 00:00:08,160
international space station is due to

3
00:00:13,669 --> 00:00:11,040
leave earth next week from a launch pad

4
00:00:16,070 --> 00:00:13,679
in japan the japan aerospace exploration

5
00:00:18,150 --> 00:00:16,080
agency's fifth h2 transfer vehicle

6
00:00:21,349 --> 00:00:18,160
begins a four-day flight to the station

7
00:00:23,029 --> 00:00:21,359
from the tanegashima space center now on

8
00:00:24,790 --> 00:00:23,039
monday morning

9
00:00:26,550 --> 00:00:24,800
today we'll get the latest on the

10
00:00:29,349 --> 00:00:26,560
preparations and the mission from nasa

11
00:00:31,429 --> 00:00:29,359
flight director royce renfrew the htv 5

12
00:00:34,229 --> 00:00:31,439
lead flight director

13
00:00:36,229 --> 00:00:34,239

so let's first talk about the uh

14
00:00:38,869 --> 00:00:36,239
the timing i think you know originally

15
00:00:41,910 --> 00:00:38,879
it was scheduled and planned to take off

16
00:00:43,990 --> 00:00:41,920
on sunday so what happened so the one

17
00:00:45,430 --> 00:00:44,000
thing we don't get in control is weather

18
00:00:47,590 --> 00:00:45,440
we've always we always have to keep

19
00:00:49,110 --> 00:00:47,600
track of the weather just like

20
00:00:51,510 --> 00:00:49,120
all rockets that are going to launch

21
00:00:53,830 --> 00:00:51,520
their weather constraints the weather in

22
00:00:55,590 --> 00:00:53,840
tanagashima was

23
00:00:57,990 --> 00:00:55,600
not looking good for a sunday launch so

24
00:01:00,310 --> 00:00:58,000
they decided to delay it a day and we'll

25
00:01:01,590 --> 00:01:00,320
get off the pad on monday and get there

26
00:01:02,950 --> 00:01:01,600
on friday so

27
00:01:04,630 --> 00:01:02,960
you know i can't control the weather

28
00:01:07,350 --> 00:01:04,640
nobody can but that'll be fine we'll

29
00:01:09,910 --> 00:01:07,360
just delay it one day and it'll be fine

30
00:01:12,070 --> 00:01:09,920
this particular mission htv-5 is what's

31
00:01:14,149 --> 00:01:12,080
new about it so there there are a couple

32
00:01:15,510 --> 00:01:14,159
new things for this uh vehicle in

33
00:01:19,830 --> 00:01:15,520
particular

34
00:01:22,710 --> 00:01:19,840
the uh incone of the htv-5 is available

35
00:01:25,190 --> 00:01:22,720
this time for stowage going uphill

36
00:01:26,630 --> 00:01:25,200
and coming to being bring trash home as

37
00:01:28,630 --> 00:01:26,640
well so that gives us a little bit more

38
00:01:30,069 --> 00:01:28,640

volume to bring

39
00:01:31,830 --> 00:01:30,079
food and supplies and scientific

40
00:01:34,710 --> 00:01:31,840
research equipment up to the up to the

41
00:01:36,069 --> 00:01:34,720
iss you mentioned about 4.7 tons of

42
00:01:38,830 --> 00:01:36,079
hardware

43
00:01:41,749 --> 00:01:38,840
that's good we're also bringing up some

44
00:01:43,429 --> 00:01:41,759
uh common water carriers for water

45
00:01:44,550 --> 00:01:43,439
coming up hill we have about 30 bags of

46
00:01:47,590 --> 00:01:44,560
water

47
00:01:49,109 --> 00:01:47,600
various equipment that also after the

48
00:01:51,350 --> 00:01:49,119
the recent incidents that we've had with

49
00:01:53,670 --> 00:01:51,360
some of our vehicles we we

50
00:01:55,670 --> 00:01:53,680
got some critical spares on board hdv5

51
00:01:57,510 --> 00:01:55,680
as late load hardware

52
00:02:00,789 --> 00:01:57,520
some equipment for our regen eclipse

53
00:02:02,469 --> 00:02:00,799
system and some other equipment from for

54
00:02:04,550 --> 00:02:02,479
eva folks in particular that we're

55
00:02:06,230 --> 00:02:04,560
bringing up hill so

56
00:02:08,550 --> 00:02:06,240
new we'll be able to put hardware in

57
00:02:10,710 --> 00:02:08,560
that end cone

58
00:02:12,550 --> 00:02:10,720
and we've also changed the

59
00:02:15,030 --> 00:02:12,560
rendezvous trajectory just a little bit

60
00:02:16,869 --> 00:02:15,040
for this mission we used to have

61
00:02:19,350 --> 00:02:16,879
a period of time in the first four

62
00:02:20,869 --> 00:02:19,360
missions where we there was a position

63
00:02:23,110 --> 00:02:20,879

behind iss

64
00:02:24,630 --> 00:02:23,120
where htv would go do a little football

65
00:02:26,470 --> 00:02:24,640
out there to make sure everything was

66
00:02:28,070 --> 00:02:26,480
ready to go on board iss before they

67
00:02:29,750 --> 00:02:28,080
came in

68
00:02:32,150 --> 00:02:29,760
none of the other visiting vehicles do

69
00:02:34,790 --> 00:02:32,160
that activity so for this mission we we

70
00:02:36,790 --> 00:02:34,800
got rid of that what's called an ai hold

71
00:02:38,390 --> 00:02:36,800
approach interface hold we got rid of

72
00:02:39,990 --> 00:02:38,400
that shaved about two hours off the

73
00:02:41,750 --> 00:02:40,000
rendezvous timeline

74
00:02:43,589 --> 00:02:41,760
uh it gets us in line with the other

75
00:02:44,790 --> 00:02:43,599
visiting vehicles that are out there so

76
00:02:47,270 --> 00:02:44,800
a couple different things but

77
00:02:49,110 --> 00:02:47,280
predominantly it's hdb mission pretty

78
00:02:51,509 --> 00:02:49,120
much the same as we've always had just

79
00:02:53,350 --> 00:02:51,519
new and improved just new and improved

80
00:02:54,710 --> 00:02:53,360
okay so you did talk about a bigger

81
00:02:56,790 --> 00:02:54,720
volume so

82
00:02:59,589 --> 00:02:56,800
um which is good because we have big

83
00:03:01,910 --> 00:02:59,599
stuff going up there so talk to me about

84
00:03:04,550 --> 00:03:01,920
the the galley that's going up yeah so

85
00:03:06,390 --> 00:03:04,560
we are flying up two complete racks for

86
00:03:08,790 --> 00:03:06,400
iss

87
00:03:11,190 --> 00:03:08,800
one of them is the the galley rack which

88
00:03:14,070 --> 00:03:11,200

will go into the node one module okay

89
00:03:17,030 --> 00:03:14,080
this is the us segment in the us segment

90
00:03:18,710 --> 00:03:17,040
off times the iss is described as a four

91
00:03:20,869 --> 00:03:18,720
bedroom house or a five bedroom house

92
00:03:23,270 --> 00:03:20,879
and that's very true but the one thing

93
00:03:25,270 --> 00:03:23,280
that the iss doesn't have is a kitchen

94
00:03:27,589 --> 00:03:25,280
it has the ability for the crew to get

95
00:03:28,949 --> 00:03:27,599
water out of a water dispenser in the

96
00:03:31,190 --> 00:03:28,959
lab there are

97
00:03:33,350 --> 00:03:31,200
suitcase size food warmers that are

98
00:03:34,949 --> 00:03:33,360
scattered around there are a couple of

99
00:03:36,630 --> 00:03:34,959
what are called merlins which are

100
00:03:37,589 --> 00:03:36,640
refrigerators where they can keep their

101
00:03:39,750 --> 00:03:37,599
food

102
00:03:42,149 --> 00:03:39,760
cold when they want it cold but it's not

103
00:03:43,509 --> 00:03:42,159
all consolidated in one space so so

104
00:03:45,110 --> 00:03:43,519
we're going to get a kitchen a galley

105
00:03:47,350 --> 00:03:45,120
rack that's going to go in the node 1

106
00:03:49,750 --> 00:03:47,360
module we'll move the potable water

107
00:03:51,910 --> 00:03:49,760
dispenser there we'll it comes up with

108
00:03:54,390 --> 00:03:51,920
its own little refrigerators called

109
00:03:56,710 --> 00:03:54,400
merlins and it has its own food warmers

110
00:03:58,550 --> 00:03:56,720
there so it has a it has water it has a

111
00:04:00,149 --> 00:03:58,560
refrigerator and it has a stove if you

112
00:04:01,830 --> 00:04:00,159
want to think of it that way and i'll

113
00:04:04,070 --> 00:04:01,840

all be in one place in node one i'm sure

114
00:04:06,149 --> 00:04:04,080
the crew will appreciate having that the

115
00:04:08,229 --> 00:04:06,159
other big rack that we're that we're

116
00:04:09,990 --> 00:04:08,239
bringing up goes into the gem module the

117
00:04:12,949 --> 00:04:10,000
japanese module

118
00:04:15,429 --> 00:04:12,959
it's called the the multi-purpose small

119
00:04:17,990 --> 00:04:15,439
payload rack or mspr

120
00:04:20,629 --> 00:04:18,000
it's a plug and play piece of equipment

121
00:04:22,230 --> 00:04:20,639
iss is a good place to do that you fly

122
00:04:24,629 --> 00:04:22,240
any science that you want you can plug

123
00:04:25,830 --> 00:04:24,639
it into the mspr do the research and

124
00:04:27,270 --> 00:04:25,840
then

125
00:04:29,510 --> 00:04:27,280
take it out and put another payload in

126
00:04:31,510 --> 00:04:29,520
there this will be the second mspr we

127
00:04:33,430 --> 00:04:31,520
already have one on the vehicle so we'll

128
00:04:35,270 --> 00:04:33,440
put that rack in the in the gym and move

129
00:04:38,070 --> 00:04:35,280
forward from there

130
00:04:40,310 --> 00:04:38,080
very good so big stuff and then also

131
00:04:45,110 --> 00:04:40,320
some big science and i know that there's

132
00:04:47,270 --> 00:04:45,120
the electro magnetic levitator facility

133
00:04:49,590 --> 00:04:47,280
correct elf and then also calais what

134
00:04:52,550 --> 00:04:49,600
can you tell me about calais so calais

135
00:04:53,909 --> 00:04:52,560
is uh is uh so first of all elf is one

136
00:04:57,110 --> 00:04:53,919
of the experiments that'll go in the

137
00:05:00,230 --> 00:04:57,120
mspr so that's inside the station

138
00:05:02,469 --> 00:05:00,240

calais is designed to do

139
00:05:04,790 --> 00:05:02,479
research into dark matter and it goes

140
00:05:06,230 --> 00:05:04,800
outside the station

141
00:05:08,310 --> 00:05:06,240
outside the

142
00:05:10,790 --> 00:05:08,320
gym the japanese module there is what's

143
00:05:13,270 --> 00:05:10,800
called the exposed facility it's a

144
00:05:15,110 --> 00:05:13,280
little area of station where we can

145
00:05:17,590 --> 00:05:15,120
insert payloads and take them back out

146
00:05:20,230 --> 00:05:17,600
so calais will be installed in one of

147
00:05:22,310 --> 00:05:20,240
the ports on the exposed facility

148
00:05:24,150 --> 00:05:22,320
after it arrives on htv5 and it will

149
00:05:27,270 --> 00:05:24,160
start doing scientific research into

150
00:05:29,430 --> 00:05:27,280
dark matter and what about um replacing

151
00:05:31,510 --> 00:05:29,440
any of lost items that were lost on the

152
00:05:33,830 --> 00:05:31,520
on the previous cargo crafts yeah

153
00:05:36,790 --> 00:05:33,840
there's uh there's a piece of hardware

154
00:05:38,550 --> 00:05:36,800
called a multi-filtration bed or an mf

155
00:05:39,749 --> 00:05:38,560
bed you may hear the conversation it's

156
00:05:40,710 --> 00:05:39,759
part of our

157
00:05:42,790 --> 00:05:40,720
uh

158
00:05:44,390 --> 00:05:42,800
regenerative eclipse system that takes

159
00:05:46,310 --> 00:05:44,400
the all the water that's produced on

160
00:05:48,629 --> 00:05:46,320
station cleans it up and makes it back

161
00:05:51,270 --> 00:05:48,639
into drinkable water

162
00:05:52,469 --> 00:05:51,280
the regen system also cleans up all the

163
00:05:54,870 --> 00:05:52,479

atmosphere

164
00:05:56,710 --> 00:05:54,880
has a carbon dioxide removal assembly

165
00:05:58,870 --> 00:05:56,720
various equipment to keep the the

166
00:06:01,029 --> 00:05:58,880
environment inside iss

167
00:06:02,350 --> 00:06:01,039
habitable one of the pieces of equipment

168
00:06:04,390 --> 00:06:02,360
that we need for that is this

169
00:06:05,590 --> 00:06:04,400
multi-filtration bed which we're flying

170
00:06:07,029 --> 00:06:05,600
up

171
00:06:09,670 --> 00:06:07,039
also

172
00:06:10,710 --> 00:06:09,680
there are some components for u.s space

173
00:06:12,710 --> 00:06:10,720
suits

174
00:06:15,430 --> 00:06:12,720
we're not flying up an entire space suit

175
00:06:18,629 --> 00:06:15,440
on this vehicle or emu but we're flying

176
00:06:20,469 --> 00:06:18,639
up some components and some filters the

177
00:06:22,230 --> 00:06:20,479
chill in the airlock today doing a loop

178
00:06:24,390 --> 00:06:22,240
scrub whenever you do a loop scrub you

179
00:06:26,309 --> 00:06:24,400
have to have various filters to flow the

180
00:06:28,390 --> 00:06:26,319
water through bringing up some of those

181
00:06:31,350 --> 00:06:28,400
components on the vehicle as well thank