



1
00:01:44,790 --> 00:01:41,940
the shot had such an issue

2
00:01:50,610 --> 00:01:44,800
earlier way

3
00:01:57,219 --> 00:01:50,620
justice Jack night has old magazine

4
00:02:02,790 --> 00:01:57,229
and it keeps sister out of sex you know

5
00:02:05,580 --> 00:02:02,800
when that shot but where it fake

6
00:02:08,770 --> 00:02:05,590
Scarlett below

7
00:02:12,050 --> 00:02:08,780
not the ring

8
00:02:12,060 --> 00:02:14,809
my knee

9
00:02:14,819 --> 00:02:21,190
so there's never a trait surrender

10
00:02:35,380 --> 00:02:30,520
that's what Ramana Liza body just Susan

11
00:02:35,390 --> 00:02:38,870
round a corner

12
00:02:50,510 --> 00:02:41,620
good that some were

13
00:02:56,670 --> 00:02:50,520

mack the knife down by the river dojin

14

00:02:59,130 --> 00:02:56,680

we'll remember just goofin on down

15

00:03:02,990 --> 00:02:59,140

that theme message

16

00:03:03,000 --> 00:03:16,900

I will get you ten Mackey's back in town

17

00:03:21,680 --> 00:03:19,430

Atlantis mirror with a familiar tune to

18

00:03:23,600 --> 00:03:21,690

your class of 80 one crew member and as

19

00:03:25,460 --> 00:03:23,610

a tribute to your sharp crew and the

20

00:03:32,780 --> 00:03:25,470

terrific way you've flashed through

21

00:03:35,720 --> 00:03:32,790

transfer ops good morning good morning

22

00:04:30,310 --> 00:03:35,730

is then thanks Kay to a fellow class 81

23

00:04:35,680 --> 00:04:33,100

this is Mission Control Houston this

24

00:04:37,720 --> 00:04:35,690

view inside the bio rack facility in the

25

00:04:40,870 --> 00:04:37,730

glovebox associated with that

26
00:04:42,640 --> 00:04:40,880
multi-purpose facility in the space half

27
00:04:44,530 --> 00:04:42,650
double module at the rear of Atlantis's

28
00:04:47,380 --> 00:04:44,540
cargo bay showing astronaut john

29
00:04:49,180 --> 00:04:47,390
grunsfeld at work with a variety of

30
00:04:52,510 --> 00:04:49,190
experiments dealing with the effect of

31
00:04:55,510 --> 00:04:52,520
microgravity on plants fungus tissues

32
00:04:59,020 --> 00:04:55,520
and cells Grunsfeld offering a glimpse

33
00:05:02,380 --> 00:04:59,030
of the latest experiment results to bio

34
00:05:16,660 --> 00:05:02,390
rack and experiment payload officials

35
00:05:22,480 --> 00:05:18,760
this have Atlanta superb Iraq you should

36
00:05:24,430 --> 00:05:22,490
have pictures of the gravid 7 and

37
00:05:26,110 --> 00:05:24,440
gravitate samples of course these were

38
00:05:28,360 --> 00:05:26,120

the samples that were in the 1g

39

00:05:30,840 --> 00:05:28,370

centrifuge that I just thought you'd

40

00:05:46,740 --> 00:05:30,850

like to see how nice third growth was

41

00:05:46,750 --> 00:05:52,369

go ahead

42

00:05:57,600 --> 00:05:55,379

Tom Walden from Washington Illinois is

43

00:05:59,969 --> 00:05:57,610

building a one-tenth scale version of

44

00:06:02,010 --> 00:05:59,979

the shuttle radio-controlled and wants

45

00:06:05,459 --> 00:06:02,020

to know how the shuttle is controlled

46

00:06:08,040 --> 00:06:05,469

during ascent and the shuttle is

47

00:06:09,869 --> 00:06:08,050

controlled by gambling or moving the SRB

48

00:06:12,149 --> 00:06:09,879

the solid rocket booster nozzles and

49

00:06:15,119 --> 00:06:12,159

also the three Shuttle main engine

50

00:06:17,999 --> 00:06:15,129

nozzles the aerodynamic surfaces the

51
00:06:20,490 --> 00:06:18,009
ailerons are only used during the first

52
00:06:23,070 --> 00:06:20,500
90 seconds of flight and they're moved

53
00:06:24,600 --> 00:06:23,080
to minimize structural loads on the

54
00:06:27,059 --> 00:06:24,610
wings hopefully you won't need to do

55
00:06:33,959 --> 00:06:27,069
that on your radio-controlled model good

56
00:08:34,020 --> 00:06:33,969
luck in thanks for the question thank

57
00:08:42,330 --> 00:08:38,040
Houston Atlantis 40 vez troubleshoot go

58
00:08:45,570 --> 00:08:42,340
ahead yeah Chris do you anticipate any

59
00:08:47,010 --> 00:08:45,580
more steps with the pgs see because we

60
00:08:48,990 --> 00:08:47,020
were wondering whether we should let the

61
00:09:12,750 --> 00:08:49,000
expansion chassis away and in our

62
00:09:17,170 --> 00:09:15,220
Lana's Houston that's all we had for the

63
00:09:19,750 --> 00:09:17,180

Texas diagnostics you have answered the

64

00:09:22,690 --> 00:09:19,760

question and it looks like we can make

65

00:09:25,570 --> 00:09:22,700

Texas work with the work that you've

66

00:09:27,670 --> 00:09:25,580

done on board we'll take it to the mmt

67

00:09:30,730 --> 00:09:27,680

and decide exactly how we're going to

68

00:09:32,350 --> 00:09:30,740

fit that all in the timeline but thanks