



# SPACE TO GROUND

1  
00:00:05,030 --> 00:00:03,189  
houston station on space to ground

2  
00:00:06,550 --> 00:00:05,040  
welcome to space to ground your weekly

3  
00:00:08,230 --> 00:00:06,560  
look at what's happening on board the

4  
00:00:10,790 --> 00:00:08,240  
international space station i'm dan

5  
00:00:12,709 --> 00:00:10,800  
hewitt robots on the station are testing

6  
00:00:15,509 --> 00:00:12,719  
new technologies that could one day send

7  
00:00:17,430 --> 00:00:15,519  
repair droids to satellites in space the

8  
00:00:19,429 --> 00:00:17,440  
robotic refueling mission picked up

9  
00:00:22,070 --> 00:00:19,439  
again this week which uses the station's

10  
00:00:24,310 --> 00:00:22,080  
two arms mechanical handyman dexter to

11  
00:00:27,109 --> 00:00:24,320  
show how future robots could repair and

12  
00:00:29,109 --> 00:00:27,119  
refuel satellites in space and just last

13  
00:00:31,750 --> 00:00:29,119

week the spheres satellites were used to

14  
00:00:34,310 --> 00:00:31,760  
test new automated docking and undocking

15  
00:00:36,870 --> 00:00:34,320  
techniques a vital skill for any robotic

16  
00:00:39,190 --> 00:00:36,880  
mechanic of the future a new flock of

17  
00:00:40,229 --> 00:00:39,200  
cubesats also shot away from the station

18  
00:00:42,069 --> 00:00:40,239  
this week

19  
00:00:44,069 --> 00:00:42,079  
about a dozen of the small satellites

20  
00:00:45,750 --> 00:00:44,079  
were from planet labs adding to their

21  
00:00:47,910 --> 00:00:45,760  
constellation of earth observing

22  
00:00:50,229 --> 00:00:47,920  
satellites which monitor everything from

23  
00:00:52,150 --> 00:00:50,239  
deforestation and urbanization to

24  
00:00:54,470 --> 00:00:52,160  
natural disaster relief and farming

25  
00:00:56,549 --> 00:00:54,480  
harvests in developing nations and two

26

00:00:58,630 --> 00:00:56,559

other satellites were built by denmark

27

00:01:02,150 --> 00:00:58,640

to test radio technologies for tracking

28

00:01:04,070 --> 00:01:02,160

both aircraft and ships on the open sea

29

00:01:05,670 --> 00:01:04,080

this week we have a fun question from

30

00:01:07,510 --> 00:01:05,680

connor who wants to know what would

31

00:01:09,670 --> 00:01:07,520

happen if you popped a water balloon on

32

00:01:11,429 --> 00:01:09,680

the space station well because of the

33

00:01:13,030 --> 00:01:11,439

unique environment it'd end up pretty

34

00:01:14,070 --> 00:01:13,040

much looking the same as before it

35

00:01:16,310 --> 00:01:14,080

popped

36

00:01:18,469 --> 00:01:16,320

gravity here on earth constantly pulls

37

00:01:20,550 --> 00:01:18,479

down on everything which is why water

38

00:01:21,990 --> 00:01:20,560

looks flat and conforms to whatever

39

00:01:23,990 --> 00:01:22,000

container it's in

40

00:01:26,550 --> 00:01:24,000

but in microgravity surface tension

41

00:01:28,230 --> 00:01:26,560

takes over and water molecules naturally

42

00:01:30,149 --> 00:01:28,240

pull on each other evenly in all

43

00:01:33,190 --> 00:01:30,159

directions to form a shape with the

44

00:01:35,510 --> 00:01:33,200

smallest possible area a sphere makes

45

00:01:37,350 --> 00:01:35,520

staying hydrated a lot more fun

46

00:01:38,950 --> 00:01:37,360

that's it for this week keep sending us

47

00:01:41,350 --> 00:01:38,960

your questions and comments using the