

N67250



1  
00:00:02,520 --> 00:00:08,520

[Music]

2  
00:00:08,520 --> 00:00:13,280

>>There's a lot of people, a lot of professors that will tell you that aerospace has become

3  
00:00:13,280 --> 00:00:18,610

a very staid, or even conservative, and that there's nothing new to learn, and I would

4  
00:00:18,610 --> 00:00:24,200

say to those people that you're not trying hard enough.

5  
00:00:24,200 --> 00:00:28,770

Mars is just such an alien world in so many ways, and so designing a little airplane to

6  
00:00:28,770 --> 00:00:32,960

be able to fly there, that's a pretty good trick, it's been a lot of fun.

7  
00:00:32,960 --> 00:00:34,380

[Servos moving]

8  
00:00:34,390 --> 00:00:38,930

The hardest part about designing little PRANDTL-M, we initially thought it would just be the

9  
00:00:38,930 --> 00:00:44,280

aerodynamics, but that we sort of had handled, we ran into another problem, where we ran

10  
00:00:44,280 --> 00:00:49,080

into a very unusual instability, it comes up every once in awhile, and it's a function

11  
00:00:49,080 --> 00:00:53,990

of the mass distribution; we struggled for months trying to figure that particular problem

12  
00:00:53,990 --> 00:01:00,170  
out, and it turns out that the real answer in that case is to use a stability augmentation

13  
00:01:00,170 --> 00:01:05,939  
system, and we have a really brilliant guy, Ryan Dibley, who was able to design us a little

14  
00:01:05,939 --> 00:01:08,149  
piece of software in order to do that for us.

15  
00:01:08,820 --> 00:01:10,860  
>>Alright, standby, here we go...

16  
00:01:10,860 --> 00:01:13,220  
...three, two, one, release!

17  
00:01:13,220 --> 00:01:15,620  
[Background propeller, power generator]

18  
00:01:15,620 --> 00:01:18,320  
[Music]

19  
00:01:18,320 --> 00:01:20,320  
[Background radio calls]

20  
00:02:27,460 --> 00:02:31,380  
>>Dropping in three...two...one...release!