
HS 3 Mission:
Global Hawk S-HIS Instrument

1
00:00:20,160 --> 00:00:04,030
(music)

2
00:00:20,180 --> 00:00:24,170
The hardest thing to predict about hurricanes right is, how to

3
00:00:24,190 --> 00:00:28,200
untangle the puzzle, of exactly what determines it is a tough one.

4
00:00:28,220 --> 00:00:32,210
But we have a whole bunch of new tools now. It’s called the Scanning-

5
00:00:32,230 --> 00:00:36,220
HIS, and that stands for Scanning as it does

6
00:00:36,240 --> 00:00:40,260
cross-tract scanning in order to give aerial coverage.

7
00:00:40,280 --> 00:00:44,300
High-Resolution is the H, its high spectral resolution,

8
00:00:44,320 --> 00:00:48,330
which gives you High-Resolution coverage of the

9
00:00:48,350 --> 00:00:52,340
infrared emitted spectrum. Interferometer is the I,

10
00:00:52,360 --> 00:00:56,370
and that explains the type of instrument that’s used to give the

11
00:00:56,390 --> 00:01:00,370
high spectral resolution coverage and it’s a

12
00:01:00,390 --> 00:01:04,380
Sounder which means from that you can derive vertical

13
00:01:04,400 --> 00:01:08,390

profiles of the quantities. With this aircraft that can

14
00:01:08,410 --> 00:01:12,390
fly for twenty-four hours we can really get the time coverage

15
00:01:12,410 --> 00:01:16,430
of what’s going on with the storm much better than we’ve been able to

16
00:01:16,450 --> 00:01:20,460
do. In fact we’ll be measuring the temperature structure of

17
00:01:20,480 --> 00:01:24,500
the upper area around the storm, also

18
00:01:24,520 --> 00:01:28,530
the water vapor properties of the outflow of the storm,

19
00:01:28,550 --> 00:01:32,550
and the cloud structures. So it’s a

20
00:01:32,570 --> 00:01:36,570
combination of being able to do it in more spatial detail

21
00:01:36,590 --> 00:01:40,580
and get temporal changes that you can’t do from a spacecraft.

22
00:01:40,600 --> 00:01:44,580
Learning little pieces of the puzzle all add up to being able

23
00:01:44,600 --> 00:01:48,620
able to do better forecasting in the future. It’s something that

24
00:01:48,640 --> 00:01:52,660
we’ve studied for many, many, years now, for decades

25
00:01:52,680 --> 00:01:56,700
is how to make measurements like this and to see them

26
00:01:56,720 --> 00:02:00,720
being used is very rewarding, especially interesting to see

27
00:02:00,740 --> 00:02:04,740
our community leading in this area that’s going to turn into