1
00:00:20,850 --> 00:00:04,180
Music.

2
00:00:20,870 --> 00:00:25,030
Dr. Kathryn Sullivan: On the research front, we are working continually

3
00:00:25,050 --> 00:00:29,170
to better understand the actual physics, the science of

4
00:00:29,190 --> 00:00:33,300
how severe storms become tornadic; what conditions make that happen.

5
00:00:33,320 --> 00:00:37,410
Another part of the problem of course is to be alert and aware, and tracking

6
00:00:37,430 --> 00:00:41,520
these things and able to monitor them and generate the forecast and warnings.

7
00:00:41,540 --> 00:00:45,600
For that we are working very closely with our partners at NASA. We've got an important new

8
00:00:45,620 --> 00:00:49,650
satellite asset called GOES-R. This satellite will sit about 22,000

9
00:00:49,670 --> 00:00:53,700
miles above the Earth. It will be able to take a picture of

the entire face of the Earth

10
00:00:53,720 --> 00:00:57,720
at once, see the entire country
in a single view.

11
00:00:57,740 --> 00:01:01,890
When you have a severe storm
mass develop, a big convective
lump,

12
00:01:01,910 --> 00:01:06,070
one of the really important
things to do is monitor the top
of that, where you

13
00:01:06,090 --> 00:01:10,240
can really see the symptoms,
see the bubbles literally of
the boiling thunder storm

14
00:01:10,260 --> 00:01:14,410
masses in the atmosphere.
Geostationary satellites are
ideal for that. They can

15
00:01:14,430 --> 00:01:18,590
watch the entire country at
once. When a big massive
convective activity gets

16
00:01:18,610 --> 00:01:22,780
developed, it can zoom in and
scan that more rapidly.

17
00:01:22,800 --> 00:01:26,950
Tim Samaras: Having GOES
satellite visible imagery at
least for myself operationally

18
00:01:26,970 --> 00:01:31,130

in the field is very important.
In fact I use it exclusively

19
00:01:31,150 --> 00:01:35,290
trying to find thunderstorm
initiation. Because boiling

20
00:01:35,310 --> 00:01:39,430
seen from space is the best
sign of instability. So GOES

21
00:01:39,450 --> 00:01:43,590
satellite gives us a heads up
even before radar sees it. Dr.
Kathryn Sullivan: Very

22
00:01:43,610 --> 00:01:47,690
importantly today's satellite
that does that, takes about 30
minutes to

23
00:01:47,710 --> 00:01:51,770
take one of those complete
pictures. Our new satellite,
GOES-R, will be able to take

24
00:01:51,790 --> 00:01:55,840
one of those pictures in five
minutes. For forecasters on the
professional desks,

25
00:01:55,860 --> 00:01:59,880
that will be tremendously
valuable, helping them track
where are they moving,

26
00:01:59,900 --> 00:02:03,920
how fast are they moving, which
ones do I need to scan more
closely with radar

27

00:02:03,940 --> 00:02:08,100
and watch for the conditions
that tell me I should put out a
tornado watch or warning.

28
00:02:08,120 --> 00:02:12,270
Really important for queuing,
for triggering, for alerting
both

29
00:02:12,290 --> 00:02:16,450
our forecasters and the
communities that they serve.

30
00:02:16,470 --> 00:02:20,640
Unfortunately,

31
00:02:20,660 --> 00:02:24,830
it is not the case that one
outbreak is a clue for

32
00:02:24,850 --> 00:02:29,020
exactly what's happening next
in the season or in any
particular area.

33
00:02:29,040 --> 00:02:33,210
We do know we are heading
towards the heart of the season
for 2012

34
00:02:33,230 --> 00:02:37,290
even if we can't know those
specifics. So, what that really
tells all of us

35
00:02:37,310 --> 00:02:41,370
living in this country, is pay
attention, here comes the heavy
season. Get your

36

00:02:41,390 --> 00:02:45,460
plan out, dust it off, make
sure you are ready to take
timely action if you

37
00:02:45,480 --> 00:02:49,580
got severe storms in your
area. Tim Samaras: Having a
plan of action when you

38
00:02:49,600 --> 00:02:53,670
hear a tornado warning,
practice with your family, take
cover,

39
00:02:53,690 --> 00:02:57,760
know what to do, I think is the
most important thing. Dr.
Kathryn Sullivan: This very
summer

40
00:02:57,780 --> 00:03:01,810
in our central region, five of
our forecast offices are
experimenting with

41
00:03:01,830 --> 00:03:05,860
different ways of
communicating, almost more like
text message. Cut to the chase,

42
00:03:05,880 --> 00:03:10,040
tag something right away,
tornado, tornado siting on
radar,

43
00:03:10,060 --> 00:03:14,230
tornado damage potential
significant, that really
signals more abruptly to

44
00:03:14,250 --> 00:03:18,410

people. This is important, get
out of the way!

45
00:03:18,430 --> 00:03:22,570
No sound.