1
00:00:04,950 --> 00:00:02,389
[Music]

2
00:00:06,710 --> 00:00:04,960
on february 3rd scientists boarded a

3
00:00:08,790 --> 00:00:06,720
nasa flight headed straight for a

4
00:00:11,110 --> 00:00:08,800
snowstorm the kind of weather both

5
00:00:13,350 --> 00:00:11,120
pilots and passengers typically like to

6
00:00:16,310 --> 00:00:13,360
avoid but this flight was all in the

7
00:00:19,349 --> 00:00:16,320
name of science specifically the impacts

8
00:00:21,349 --> 00:00:19,359
mission or investigation of microphysics

9
00:00:23,990 --> 00:00:21,359
and precipitation for atlantic coast

10
00:00:25,910 --> 00:00:24,000
threatening snowstorms

11
00:00:27,910 --> 00:00:25,920
the team is tracking snowstorms across

12
00:00:29,669 --> 00:00:27,920
the midwest and eastern united states

13
00:00:32,229 --> 00:00:29,679

with two aircrafts

14
00:00:34,470 --> 00:00:32,239
a p3 equipped with multiple instruments

15
00:00:38,869 --> 00:00:34,480
operated by scientists and a high

16
00:00:40,389 --> 00:00:38,879
altitude flying er-2 crewed by one pilot

17
00:00:42,389 --> 00:00:40,399
they're looking to better understand the

18
00:00:44,549 --> 00:00:42,399
formation and development of winter

19
00:00:46,709 --> 00:00:44,559
storms

20
00:00:50,069 --> 00:00:46,719
so our goal is

21
00:00:52,709 --> 00:00:50,079
to observe and measure winter storms

22
00:00:54,630 --> 00:00:52,719
that mostly that happen along the east

23
00:00:57,750 --> 00:00:54,640
coast of the united states

24
00:01:00,950 --> 00:00:57,760
this specific flight we are flying over

25
00:01:02,950 --> 00:01:00,960
a really major winter storm that is

26
00:01:04,229 --> 00:01:02,960
affecting the midwest and as well as

27
00:01:07,910 --> 00:01:04,239
tomorrow it's going to go into the

28
00:01:11,429 --> 00:01:09,830
ultimately what the impacts team learns

29
00:01:13,750 --> 00:01:11,439
about snowstorms will improve

30
00:01:15,670 --> 00:01:13,760
meteorological models and our ability to

31
00:01:18,600 --> 00:01:15,680
use satellite data to predict how much

32
00:01:21,030 --> 00:01:18,610
snow will fall and where

33
00:01:23,190 --> 00:01:21,040
[Music]

34
00:01:27,020 --> 00:01:23,200
for today's flight it's been

35
00:01:27,030 --> 00:01:36,310
[Music]

36
00:01:40,230 --> 00:01:38,149
the in-flight team members work in

37
00:01:42,149 --> 00:01:40,240
conjunction with ground operations

38
00:01:43,990 --> 00:01:42,159

monitoring changing weather conditions

39
00:01:45,190 --> 00:01:44,000
and coordinating flight paths with the

40
00:01:47,350 --> 00:01:45,200
other aircraft

41
00:01:49,990 --> 00:01:47,360
[Music]

42
00:01:53,030 --> 00:01:50,000
on this flight the p-3 flew a total of

43
00:01:55,830 --> 00:01:53,040
eight hours flying the same 200-mile

44
00:01:57,670 --> 00:01:55,840
stretch of snowstorm three times each at

45
00:01:59,749 --> 00:01:57,680
a different elevation in order to

46
00:02:01,749 --> 00:01:59,759
capture data from precipitation as it

47
00:02:03,830 --> 00:02:01,759
descends

48
00:02:06,310 --> 00:02:03,840
especially in uh you know turbulent

49
00:02:08,710 --> 00:02:06,320
clouds and turbulent storms you have

50
00:02:10,790 --> 00:02:08,720
ice particles that form at certain

51
00:02:13,430 --> 00:02:10,800
temperatures certain altitudes so right

52
00:02:15,030 --> 00:02:13,440
now we're actually seeing um a lot of

53
00:02:16,630 --> 00:02:15,040
plate aggregates

54
00:02:17,430 --> 00:02:16,640
so we have a lot of uh

55
00:02:22,309 --> 00:02:17,440
not

56
00:02:25,350 --> 00:02:22,319
that i'm seeing but mostly just large

57
00:02:29,750 --> 00:02:27,510
the multi-year impacts campaign is the

58
00:02:32,070 --> 00:02:29,760
first comprehensive study of snowstorms