



1  
00:00:03,080 --> 00:00:04,300  
[MUSIC]

2  
00:00:04,300 --> 00:00:06,750  
HEY EVERYBODY.

3  
00:00:06,750 --> 00:00:10,320  
MY NAME IS MICHELLE GIERACH, AND I AM THE  
PROJECT SCIENTIST FOR THE CORAL REEF AIRBORNE

4  
00:00:10,320 --> 00:00:12,440  
LABORATORY, OR CORAL MISSION.

5  
00:00:12,440 --> 00:00:16,880  
RIGHT NOW WE ARE AT AIR SERVICE HAWAII WITH  
THE HEART AND SOUL OF THE CORAL MISSION WHICH

6  
00:00:16,880 --> 00:00:20,730  
IS THE TEMPUS SUPPLIED SOLUTIONS GULF STREAM  
IV, OR G4.

7  
00:00:20,730 --> 00:00:26,060  
WHAT MAKES THIS AIRCRAFT SO IMPORTANT TO CORAL  
IS WHAT IT HAS WITHIN, INSIDE THE PLANE.

8  
00:00:26,060 --> 00:00:30,910  
IT IS THE PORTABLE REMOTE IMAGING SPECTROMETER,  
OR PRISM INSTRUMENT, AND IT SEES THROUGH THE

9  
00:00:30,910 --> 00:00:38,629  
BOTTOM OF THE PLANE TO ASSES CORAL REEF CONDITION  
AT 28,000 FEET ABOVE THE OCEAN SURFACE.

10  
00:00:38,629 --> 00:00:44,070  
WE ARE IN HAWAII AS PART OF, ONE OF OUR FIELD  
CAMPAIGNS, SPECIFICALLY OUR OPERATIONAL READINESS

11  
00:00:44,070 --> 00:00:48,989  
TEST IN WHICH WE HAVE AN IN-WATER TEAM IN

KANEOHE BAY TAKING OBSERVATIONS.

12

00:00:48,989 --> 00:00:53,769

WE'LL HAVE THE G4 FLYING OVER COLLECTING  
OBSERVATIONS.

13

00:00:53,769 --> 00:00:58,300

THE TWO TOGETHER PROVIDES AN INDICATION OF  
WHAT THE CORAL REEF CONDITION IS WITHIN KANEOHE

14

00:00:58,300 --> 00:00:59,300

BAY.

15

00:00:59,300 --> 00:01:04,930

AND THIS IS, SORT OF THE NEXUS OF CORAL - THE  
IN-WATER WITH THE AIRCRAFT TO GIVE A BETTER

16

00:01:04,930 --> 00:01:09,320

UNDERSTANDING OF WHAT ARE OUR CORAL REEFS  
CURRENTLY UNDERGOING, AND HOW WILL THEY CHANGE

17

00:01:09,320 --> 00:01:11,220

IN RESPECT TO CLIMATE.

18

00:01:11,220 --> 00:01:12,220

[SWOOSH]

19

00:01:12,220 --> 00:01:16,120

SO THIS MISSION IS GOING TO HELP US UNDERSTAND  
CORALS A LOT BETTER THAN WE KNOW RIGHT NOW

20

00:01:16,120 --> 00:01:20,160

YEAH AND I THINK SOMETHING PEOPLE NEED TO  
REALIZE IS THAT THOSE CORALS ARE DYNAMIC FEATURES

21

00:01:20,160 --> 00:01:24,650

YOU KNOW THEY CAN LIKE SHRINK AND GROW JUST  
A NATURAL THINGS, THE FORCE THINGS HAPPENING

22

00:01:24,650 --> 00:01:28,231

IN CLIMATE RIGHT NOW THEY'RE CAUSING MASSIVE  
CHANGES AND WE NEED TO UNDERSTAND WE NEED

23

00:01:28,231 --> 00:01:31,630

TO UNDERSTAND HOW THEY ARE CONNECTING UP TO  
THE CORALS AND THAT'S WHY THE CORAL MISSION

24

00:01:31,630 --> 00:01:32,630

IS SO IMPORTANT.

25

00:01:32,630 --> 00:01:35,300

YEAH IT'S VERY UNEXPECTED SO EARLIER WE  
ACTUALLY DID ANOTHER MISSION OCEAN MELTING

26

00:01:35,300 --> 00:01:37,330

GREENLAND TO MEASURE GLACIERS.

27

00:01:37,330 --> 00:01:41,560

SO HOW IS CORAL AND THESE GLACIERS IN GREENLAND  
SIMILAR?

28

00:01:41,560 --> 00:01:45,140

YEAH SO YOU THINK ABOUT IT THE OCEAN IS ONE  
OF THE MOST POWERFUL COMPONENTS OF THE EARTH

29

00:01:45,140 --> 00:01:49,960

SYSTEM IT STORES A LOT OF HEAT AND IN THE  
CASE OF OCEANS MELTING GREENLAND OR EVEN UNDERSTANDING

30

00:01:49,960 --> 00:01:54,159

THE REEFS WE'RE DOING A COMBINATION OF THINGS,  
WE GOT THESE SATELLITES GOING ACROSS THE SKY

31

00:01:54,159 --> 00:01:58,940

YOU KNOW TAKING PICTURES LOOKING DOWN AND  
THEN WE HAVE OUR AIRPLANES YOU KNOW THE AIRPLANES

32

00:01:58,940 --> 00:02:02,770

GOING ACROSS AT THE LOWER LEVEL AND THEY'RE

DOING THINGS LIKE IN OCEAN MELTING GREENLAND

33

00:02:02,770 --> 00:02:06,830

YOU'RE ACTUALLY DROPPING LITTLE SENSORS INTO  
THE OCEAN THAT ACTUALLY PUT A STRING OUT TO

34

00:02:06,830 --> 00:02:11,130

UNDERSTAND THE TEMPERATURE AND THE COMPOSITION  
BUT THEN FOR ALL THESE MISSIONS TOO WE PUT

35

00:02:11,130 --> 00:02:16,920

PEOPLE RIGHT DOWN IN THE WATER IN BOATS WE  
PUT PEOPLE OVER THE SIDE AND ALL THIS STUFF

36

00:02:16,920 --> 00:02:20,430

HAS TO COME IN CONCERT TO HELP US REALLY UNDERSTAND  
THE EARTH SYSTEM.

37

00:02:20,430 --> 00:02:21,470

RIGHT, RIGHT.