

The People Behind SWOT: **MARC SIMARD**



Jet Propulsion Laboratory
California Institute of Technology



1
00:00:04,970 --> 00:00:01,690

[Music]

2
00:00:07,190 --> 00:00:04,980

I love being out in the field coming out

3
00:00:10,610 --> 00:00:07,200

to the field keeps me in touch with

4
00:00:13,009 --> 00:00:10,620

reality I'm Mark Simard I'm a SWAT

5
00:00:16,520 --> 00:00:13,019

principal investigator and I studied a

6
00:00:24,880 --> 00:00:16,530

dance between the tides and the rivers

7
00:00:25,990 --> 00:00:24,890

[Music]

8
00:00:35,950 --> 00:00:26,000

[Applause]

9
00:00:42,590 --> 00:00:39,410

I'm from Quebec Canada from a city

10
00:00:45,350 --> 00:00:42,600

called Joker I started studying physics

11
00:00:48,170 --> 00:00:45,360

with specialization in astrophysics and

12
00:00:50,029 --> 00:00:48,180

became enamored with the environment and

13
00:00:52,430 --> 00:00:50,039

I actually became president of the

14

00:00:54,470 --> 00:00:52,440

environmental Club I did a switch and I

15

00:00:57,470 --> 00:00:54,480

started to apply what I learned in

16

00:00:59,750 --> 00:00:57,480

physics to the environment so here is a

17

00:01:01,310 --> 00:00:59,760

water level gauge water level gauges you

18

00:01:04,969 --> 00:01:01,320

know our spouse points here and there

19

00:01:07,490 --> 00:01:04,979

SWAT on the other end will give us these

20

00:01:11,090 --> 00:01:07,500

same types of measurement on the ocean

21

00:01:13,429 --> 00:01:11,100

the lakes and rivers of the entire globe

22

00:01:17,030 --> 00:01:13,439

the Mississippi River delta currently is

23

00:01:19,429 --> 00:01:17,040

losing land at the rhythm of about one

24

00:01:22,190 --> 00:01:19,439

football field every hour there are

25

00:01:24,590 --> 00:01:22,200

about 350 million people living on

26
00:01:26,810 --> 00:01:24,600
Deltas around the world they live from

27
00:01:29,210 --> 00:01:26,820
the Fisheries the agriculture the

28
00:01:31,130 --> 00:01:29,220
aquaculture from those Deltas so if we

29
00:01:33,350 --> 00:01:31,140
lose those Deltas we're not only talking

30
00:01:36,469 --> 00:01:33,360
about losing land we're also talking

31
00:01:37,730 --> 00:01:36,479
about losing livelihood for millions of

32
00:01:40,310 --> 00:01:37,740
people

33
00:01:43,730 --> 00:01:40,320
SWOT data it will give us a global

34
00:01:46,670 --> 00:01:43,740
perspective of how these Deltas can

35
00:01:49,370 --> 00:01:46,680
survive and keep up with sea level rise

36
00:01:51,350 --> 00:01:49,380
and other impacts of climate change

37
00:01:53,870 --> 00:01:51,360
looking at the Deltas around the world

38
00:01:56,569 --> 00:01:53,880

it's an extremely Dynamic area

39

00:01:57,950 --> 00:01:56,579

it's like the river is Dancing with the

40

00:02:00,950 --> 00:01:57,960

ocean

41

00:02:02,569 --> 00:02:00,960

this work is Meaningful to me it has a

42

00:02:05,810 --> 00:02:02,579

direct impact on those millions of

43

00:02:08,990 --> 00:02:05,820

people that live from the resources of