1
00:00:00,020 --> 00:00:04,180
Interviewer: Ok, John, could you give us a sense of how

2
00:00:04,200 --> 00:00:08,370
this mission was designed, your weather thoughts coming into it, and the

3
00:00:08,390 --> 00:00:12,560
scenery coming in over the calving front. That sort of thing.

4
00:00:12,580 --> 00:00:16,750
Sonntag: Ok, sounds good. My name is John Sonntag,

5
00:00:16,770 --> 00:00:20,930
I'm a senior scientist with the ATM Team – that’s Airborne Topographic Mapper.

6
00:00:20,950 --> 00:00:25,110
Today’s mission was called the

7
00:00:25,130 --> 00:00:29,290
Recovery Offshore 01 mission, made up of six parallel lines spaced at 20 kilometers.

8
00:00:29,310 --> 00:00:33,480
It’s called that because we concentrate on the area where the Recovery glacier,

9
00:00:33,500 --> 00:00:37,660
which is a major glacier in this part of east Antarctica, drains into the Filchner Ice Shelf.

10
00:00:37,680 --> 00:00:41,860
It tends to be difficult to get measurements to help us understand the shape

11
00:00:41,880 --> 00:00:46,060
of the cavity of water, ocean water beneath an ice shelf

12
00:00:46,080 --> 00:00:50,230
such as the Filchner, especially a big one like the Filchner.

13
00:00:50,250 --> 00:00:54,380

With our gravity instruments and our radar instruments on board the DC-8

14
00:00:54,400 --> 00:00:58,520
we are able to collect measurements which allow analysts and scientists to deduce the

15
00:00:58,540 --> 00:01:02,640
shape of those underwater cavities. And that's important because it

16
00:01:02,660 --> 00:01:06,740
by knowing the shape of those cavities, scientists can begin to get at

17
00:01:06,760 --> 00:01:10,800
the interaction of these glaciers with warm ocean waters.

18
00:01:10,820 --> 00:01:14,830
Which, it has been determined within the last decade or two by the glaciological community

19
00:01:14,850 --> 00:01:19,020
that the interaction of these large glaciers and warming ocean waters

20
00:01:19,040 --> 00:01:23,200
tend to be quite important in determining their future behavior.

21
00:01:23,220 --> 00:01:27,370
The weather today was probably not what you would call ideal;

22
00:01:27,390 --> 00:01:31,500
we knew that there would be a cloud layer at about between eight and ten thousand feet,

23
00:01:31,520 --> 00:01:35,700
And we had a lot of confidence in this particular forecast

24
00:01:35,720 --> 00:01:39,900
So our transit in this morning took us in over the southern part of the Antarctic Peninsula

25
00:01:39,920 --> 00:01:44,080
and over the extreme southern part of the Weddell, just in front of the Ronne Ice Shelf.

26
00:01:44,100 --> 00:01:48,260
And sure enough, most of it was clouded as the models predicted it would be.

27
00:01:48,280 --> 00:01:52,450
We could see bits of sea-ice surface here and there,

28
00:01:52,470 --> 00:01:56,630
But when we made our descent into the Filchner Ice Shelf area, we could see the edge

29
00:01:56,650 --> 00:02:00,790
of the ice shelf and the edge of Berkner Island. It was clear skies there,

30
00:02:00,810 --> 00:02:04,960
and when we got on site, we were very pleased

31
00:02:04,980 --> 00:02:09,120
to see that the forecast indeed held up.