



1  
00:00:09,059 --> 00:00:14,010  
It is a memory of a very proud time.

2  
00:00:14,010 --> 00:00:17,061  
We were happy to see it succeed.

3  
00:00:17,061 --> 00:00:24,250  
It had been alive in our minds for many years  
before that date and internally, we were prepared

4  
00:00:24,250 --> 00:00:26,220  
to see it come off.

5  
00:00:26,220 --> 00:00:28,769  
but we were not quite sure whether or not  
it would.

6  
00:00:28,769 --> 00:00:36,190  
we were under tension of course, but it was  
a tension full of optimism and full of faith

7  
00:00:36,190 --> 00:00:42,000  
in the success.

8  
00:00:42,000 --> 00:00:47,140  
My wife and i were invited to come down to  
the Cape and be on the grandstand and we were

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00:00:47,140 --> 00:00:54,110  
also asked to take care of the famous visitor,  
Professor Oberth and his wife.

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00:00:54,110 --> 00:01:00,589  
They came from Germany and of course it was  
Professor Oberth who had predicted, in his

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00:01:00,589 --> 00:01:04,049  
vision, the lunar flight for many years.

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00:01:04,049 --> 00:01:08,180

Actually, I would say for about forty or fifty years.

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00:01:08,180 --> 00:01:11,770

It was a particularly proud and happy moment.

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00:01:11,770 --> 00:01:18,800

It was a gigantic program of course and the management problems were extremely large and

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00:01:18,800 --> 00:01:21,000

oftentimes, seemed overwhelming.

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00:01:21,000 --> 00:01:27,439

Fortunately, there were some circumstances which were very helpful.

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00:01:27,439 --> 00:01:33,969

The fact that our President was very much behind it, so was the Vice President and Congress

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00:01:33,969 --> 00:01:41,299

was behind the project even the Bureau of the Budget.

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00:01:41,299 --> 00:01:46,079

It was a dream come true and everyone of us was extremely happy of course.

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00:01:46,079 --> 00:01:52,630

First, when the astronauts landed and even more so when they landed back on Earth because

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00:01:52,630 --> 00:01:59,950

that was the completed and fulfilled dream.

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00:01:59,950 --> 00:02:06,420

Dr. von Braun was an extremely unusual person.

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00:02:06,420 --> 00:02:11,780  
In fact he was a genius in five or six different fields at the same time.

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00:02:11,780 --> 00:02:21,439  
First, I would name his visionary foresight and his creative mind that he had in everything

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00:02:21,439 --> 00:02:24,670  
he did and wanted to do.

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00:02:24,670 --> 00:02:29,500  
He began to dream about the moon and about travel into space when he was about thirteen

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00:02:29,500 --> 00:02:33,209  
or fourteen years old and that dream never left him.

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00:02:33,209 --> 00:02:37,900  
He lived up his very end.

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00:02:37,900 --> 00:02:46,030  
Second, he was a superb engineer not for the smaller things like fixing water faucets around

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00:02:46,030 --> 00:02:51,549  
the house and things of that kind but he was a brilliant engineer when it came to building

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00:02:51,549 --> 00:02:58,910  
rockets and spacecraft and the manifold systems needed to make them successful.

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00:02:58,910 --> 00:03:07,430  
He was furthermore very good at presenting and promoting his ideas to the powerful people

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00:03:07,430 --> 00:03:12,219

in our government and that went up to the President himself, to the Vice President,

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00:03:12,219 --> 00:03:19,489

to the people in Congress, the people in the Bureau of the budget, to the Defense Department.

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00:03:19,489 --> 00:03:28,049

He understood to approach them inside their interests in space and to realize that work

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00:03:28,049 --> 00:03:33,040

for the space program is something of great importance not only for the technicians but

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00:03:33,040 --> 00:03:39,209

also for the politicians and for those who are responsible for the well-being of our

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00:03:39,209 --> 00:03:40,209

nation.

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00:03:40,209 --> 00:03:46,980

Second, he was equally good at promoting his ideas of spaceflight with the public.

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00:03:46,980 --> 00:03:54,079

He wrote and published about five hundred articles during his lifetime about technical

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00:03:54,079 --> 00:04:00,579

and scientific aspects and about the great importance and meaning of spaceflight and

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00:04:00,579 --> 00:04:04,010

space exploration for our civilization in general.

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00:04:04,010 --> 00:04:09,790

He was very good at that. he could charm any audience and he did so.

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00:04:09,790 --> 00:04:15,749  
He talked not only to engineers and scientists, he talked to lawyers, to real estate people,

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00:04:15,749 --> 00:04:24,470  
even the people interested in sports and to a wide cross-section of the public and he did

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00:04:24,470 --> 00:04:26,300  
that very successfully.

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00:04:26,300 --> 00:04:35,750  
Then, furthermore he was an extremely successful team builder and he managed to maintain his

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00:04:35,750 --> 00:04:38,000  
team from the very beginning.

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00:04:38,000 --> 00:04:44,120  
that was back in about 1932 when he started out building up his team.

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00:04:44,120 --> 00:04:50,840  
This team grew enormously over the years of course, particularly in this country.

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00:04:50,840 --> 00:04:56,639  
The team that he built around himself was of unusual stability.

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00:04:56,639 --> 00:05:04,110  
In fact, by the time he had to leave the team in Huntsville in 1970, the German group was

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00:05:04,110 --> 00:05:09,669  
still almost intact as it had been through many many years.

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00:05:09,669 --> 00:05:12,530

It was a privilege to work for him.

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00:05:12,530 --> 00:05:17,710

Everybody who was in his team was happy and proud to work with and for him.

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00:05:17,710 --> 00:05:25,810

He was a tough task master, no doubt about that and he demanded the utmost from his coworkers,

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00:05:25,810 --> 00:05:34,110

but it was given happily even and everyone who worked for him and with him had the feeling

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00:05:34,110 --> 00:05:40,699

that he did and could do better work because you worked for von Braun.

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00:05:40,699 --> 00:05:48,940

Of course, it is easily understandable that he did not have time for anything because

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00:05:48,940 --> 00:05:52,889

it was so many things in which he was continuously involved.

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00:05:52,889 --> 00:05:59,550

But, he had a few rules for himself which helped him very much in achieving what he

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00:05:59,550 --> 00:06:05,699

did and in saving and having time for those things which were important to him.

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00:06:05,699 --> 00:06:12,669

For example, he said he would never spend and waste time in grieving about things which

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00:06:12,669 --> 00:06:14,419

he could not change.

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00:06:14,419 --> 00:06:20,419

He said, "when i am confronted with something which is really bad, I simply ask myself can

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00:06:20,419 --> 00:06:26,220

i do something about it to better it?if I can I do it, if i can't i push it out of my

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00:06:26,220 --> 00:06:28,860

mind, because it would be lost time.

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00:06:28,860 --> 00:06:36,270

Second, he worked fast, he worked quickly and efficiently and third, he worked with

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00:06:36,270 --> 00:06:38,360

his mind continuously.

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00:06:38,360 --> 00:06:47,129

In the car, when he went up and down in the elevator, his mind was continuously at work.

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00:06:47,129 --> 00:06:51,400

On the other hand, he also understood to take off once and a while.

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00:06:51,400 --> 00:06:58,039

Weekends, when he was in town, he spent time with his family. he had two or three boats

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00:06:58,039 --> 00:07:00,470

on the river, the Tennessee.

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00:07:00,470 --> 00:07:06,430

I remember very well, in the beginning when we arrived in Huntsville, that was in the

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00:07:06,430 --> 00:07:11,440

early 50s, he was the one who pioneered waterskiing on the Tennessee which by that time began

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00:07:11,440 --> 00:07:14,849

and all of the sudden people waterskied.

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00:07:14,849 --> 00:07:18,520

Then he was a very avid scuba diver.

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00:07:18,520 --> 00:07:25,759

I think he dove in all the warm oceans around the globe at one time or another.

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00:07:25,759 --> 00:07:30,930

But still he had a lot of for the work he was supposed to do and he did so brilliantly,

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00:07:30,930 --> 00:07:33,819

namely building rockets and spacecraft.

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00:07:33,819 --> 00:07:39,199

I remember that very often when there was a new project to be discussed, he came to

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00:07:39,199 --> 00:07:45,669

the meeting with his technical people and talked about it and it became evident immediately

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00:07:45,669 --> 00:07:50,711

that in his own time perhaps at night, perhaps early in the morning or late at night, he

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00:07:50,711 --> 00:07:52,450

had done all his homework.

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00:07:52,450 --> 00:07:58,430

he was completely familiar with the problems

involved. he could ask the right questions,

86  
00:07:58,430 --> 00:08:05,159  
could ask all of the questions that had to  
be asked and so his work alone and with his

87  
00:08:05,159 --> 00:08:09,509  
team members was always extremely efficient  
and successful.

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00:08:09,509 --> 00:08:12,240  
In fact, he was always full of jokes.

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00:08:12,240 --> 00:08:19,550  
There was hardly a meeting, particularly social  
meetings when he did not tell stories.

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00:08:19,550 --> 00:08:25,599  
One thing is very interesting to note, his  
secretary of twenty-five years, Bonnie Holmes,

91  
00:08:25,599 --> 00:08:34,360  
told us that story one day, she said, "Sometimes  
von Braun has to hold a meeting with unpleasant

92  
00:08:34,360 --> 00:08:42,169  
problems and the people came in, I saw them  
going into the room and their heads were low

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00:08:42,169 --> 00:08:47,600  
and they had sinister attitudes and didn't  
talk much.

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00:08:47,600 --> 00:08:53,990  
Then they went in with von Braun and it didn't  
take longer than five minutes when loud laughter

95  
00:08:53,990 --> 00:08:56,180  
was coming from that room.

96  
00:08:56,180 --> 00:09:05,220  
I knew von Braun had uttered a joke and had brightened their minds up."

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00:09:05,220 --> 00:09:13,860  
At the time when the Apollo program came to its final test, there were other events in

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00:09:13,860 --> 00:09:20,000  
our country and on earth that weighed heavily on the minds of many people.

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00:09:20,000 --> 00:09:24,070  
Vietnam, racial unrest, and others.

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00:09:24,070 --> 00:09:29,940  
We hoped that with our project, with the Lunar project, if it were successful, we could help

101  
00:09:29,940 --> 00:09:38,779  
to divert, to some extent the depressing thoughts on many minds and we hoped that we could show

102  
00:09:38,779 --> 00:09:45,800  
that there really is a future for mankind and in particular for our technology, for

103  
00:09:45,800 --> 00:09:55,370  
our work for the exploration of space.

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00:09:55,370 --> 00:09:57,800  
It was more than seeing eye to eye.

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00:09:57,800 --> 00:10:05,910  
Kennedy visited our center here and he received of course the royal tour through our test

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00:10:05,910 --> 00:10:06,910  
stands.

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00:10:06,910 --> 00:10:08,390

The two of them were happy as young boys.

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00:10:08,390 --> 00:10:13,290

They were sitting in that car, i saw them drive by and they were laughing at each other

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00:10:13,290 --> 00:10:18,120

and talking , they were just like young boys who were very happy together.

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00:10:18,120 --> 00:10:25,430

And von Braun told us later that when they drove through the Arsenal, through the Marshall

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00:10:25,430 --> 00:10:31,570

Center, and von Braun could show him the facilities we have here from the outside and some from

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00:10:31,570 --> 00:10:37,339

the inside, Kennedy said " for heaven's sake, I wish i could take my Congressional members

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00:10:37,339 --> 00:10:46,120

through this and they would get a different attitude towards the space program."

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00:10:46,120 --> 00:10:53,610

The Disney story was proceeded by the publication of in the Collier's magazine.

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00:10:53,610 --> 00:11:03,300

And these were very successful in concentrating the interest of the people on space and on

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00:11:03,300 --> 00:11:04,300

spaceflight.

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00:11:04,300 --> 00:11:11,600

The Disney people heard about it and, the fact is that one of Disney's people, Ward

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00:11:11,600 --> 00:11:18,079

Kimball, he remembered, he said to Disney, "I just read these articles in the Collier's

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00:11:18,079 --> 00:11:22,110

journal and they really got me interested.

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00:11:22,110 --> 00:11:26,130

I think that something we should put into our own program."

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00:11:26,130 --> 00:11:32,029

And Disney asked him to make a little plan and outlay of what he had in mind.

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00:11:32,029 --> 00:11:38,579

Kimball did and Disney was immediately very much interested.

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00:11:38,579 --> 00:11:45,930

From this point, the three programs were developed that Disney did with von Braun.

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00:11:45,930 --> 00:11:56,970

They went over very well as movies and then Eisenhower, one of Eisenhower's men called

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00:11:56,970 --> 00:12:02,180

Disney and said "please send me a copy of your film." Disney did and Eisenhower showed

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00:12:02,180 --> 00:12:08,209

it to his cabinet members and his staff and i don't know to whom else.

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00:12:08,209 --> 00:12:11,730

Anyway, it seems to have impressed people.

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00:12:11,730 --> 00:12:19,399

And then, not long after that, Eisenhower made the decision to establish NASA and to

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00:12:19,399 --> 00:12:22,930

develop space as a national undertaking.

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00:12:22,930 --> 00:12:31,170

One of the Disney people then said, 'Hey, that shows that Eisenhower became interested

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00:12:31,170 --> 00:12:32,680

because of our movie."

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00:12:32,680 --> 00:12:38,240

Von Braun heard about that and he immediately wrote a letter to Disney saying "for heaven's

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00:12:38,240 --> 00:12:40,330

sake, don't say that!

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00:12:40,330 --> 00:12:47,040

It would be wrong, it would be counterproductive and please do not say that!"

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00:12:47,040 --> 00:12:54,490

The decision by Eisenhower to develop space further is Eisenhower's decision and he is

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00:12:54,490 --> 00:12:59,130

not influenced and need not be influenced by people like us.

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00:12:59,130 --> 00:13:00,760

Please do not say that.

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00:13:00,760 --> 00:13:08,820

Disney understood fully and left it out.

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00:13:08,820 --> 00:13:15,230

The main reason why the management of this huge program which involved about four hundred

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00:13:15,230 --> 00:13:21,220

thousand people at the peak of the program, the reason why this could be managed and did

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00:13:21,220 --> 00:13:27,029

function so well was the existence of one person, that person was Jim Webb.

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00:13:27,029 --> 00:13:36,329

Webb was nominated by President Kennedy and asked by President Kennedy to become the Administrator

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00:13:36,329 --> 00:13:38,389

for NASA.

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00:13:38,389 --> 00:13:39,390

He did.

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00:13:39,390 --> 00:13:45,180

It is interesting to note that Webb said, "Mr. President, if you want me to I'll be

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00:13:45,180 --> 00:13:50,670

glad to but under one condition, I work for you, I don't work for the Bureau of the Budget

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00:13:50,670 --> 00:13:53,940

or for Congress or for the Vice President, I work for you.

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00:13:53,940 --> 00:13:57,880

If we can agree on that, i will do it."

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00:13:57,880 --> 00:14:02,720

Well both people agreed and Webb did an excellent job, a brilliant job.

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00:14:02,720 --> 00:14:08,970

Without him and without his superior management capabilities, the thing would not have happened,

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00:14:08,970 --> 00:14:12,150

would not have succeeded.

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00:14:12,150 --> 00:14:17,949

There were a number of plans.

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00:14:17,949 --> 00:14:26,940

Von Braun had his plans which were more or less set out years before.

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00:14:26,940 --> 00:14:30,959

And they were modified slightly in the course of time, but not too much.

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00:14:30,959 --> 00:14:37,920

What von Braun wanted to do after the Apollo flight was to go on with the space station

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00:14:37,920 --> 00:14:40,269

and with the Mars flight.

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00:14:40,269 --> 00:14:42,360

The expedition to Mars.

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00:14:42,360 --> 00:14:48,610

And at the same time with more exploration of the Moon and in between, unmanned flights

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00:14:48,610 --> 00:14:52,300

to further out in the solar system, to the planets.

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00:14:52,300 --> 00:14:55,190

That was roughly what he wanted to do.

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00:14:55,190 --> 00:15:01,449

He still began to some extent with that program with Skylab.

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00:15:01,449 --> 00:15:05,100

Skylab became our first station in space.

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00:15:05,100 --> 00:15:11,259

You may remember that there were three crews of three people, three astronauts each and

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00:15:11,259 --> 00:15:13,570

they together spent seven months in orbit.

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00:15:13,570 --> 00:15:16,990

A very very successful project.

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00:15:16,990 --> 00:15:23,079

Unfortunately it was terminated after the first flight, which was very unfortunate.

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00:15:23,079 --> 00:15:29,149

On the other hand, von Braun, he was always looking far into the future, but at the same

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00:15:29,149 --> 00:15:31,389

time there was a lot of realism.

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00:15:31,389 --> 00:15:38,730

He had a hand on the pulse of the people and on the government and he realized that the

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00:15:38,730 --> 00:15:39,730

problems.

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00:15:39,730 --> 00:15:48,440

I remember him saying several times that one of the problems is that we ran out of moons.

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00:15:48,440 --> 00:15:55,899

That means simply we don't have a relatively easy target close by which can fire up everybody

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00:15:55,899 --> 00:15:58,990

in the government and among the people.

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00:15:58,990 --> 00:16:05,700

Mars is still a couple years away and particularly a few hundred thousand miles away.

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00:16:05,700 --> 00:16:15,699

So it will not be too easy to get the same support for an early Mars project as we could

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00:16:15,699 --> 00:16:17,779

get it for the Moon.

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00:16:17,779 --> 00:16:22,630

But in general he said, "what we have to do is to keep up our good work to make sure that

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00:16:22,630 --> 00:16:28,480

we don't have any technical mishaps and we have to make sure that we keep the public