



1
00:00:01,400 --> 00:00:03,803
>> Aiding the pursuit of
knowledge is a top goal

2
00:00:03,803 --> 00:00:05,237
for the three newest members

3
00:00:05,237 --> 00:00:09,542
of the International Space
Station's Expedition 37 crew.

4
00:00:09,542 --> 00:00:12,278
Dr. Oleg Kotov is a
native of Simferopol

5
00:00:12,278 --> 00:00:14,046
in what is now Ukraine.

6
00:00:14,046 --> 00:00:17,650
But as the son of a Soviet
military officer, he grew up all

7
00:00:17,650 --> 00:00:20,719
over Russia and had his
sights set on the military

8
00:00:20,719 --> 00:00:23,556
for his own career by the
time he finished high school

9
00:00:23,556 --> 00:00:24,190
in Moscow.

10
00:00:24,190 --> 00:00:25,391
[Foreign language]

11
00:00:25,391 --> 00:00:30,796
>> I decided to become a
military officer, as well,

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00:00:30,796 --> 00:00:33,632
like my father and grandfather.

13

00:00:33,632 --> 00:00:38,938
However, I kept dreaming about
space, and while I had to feel

14

00:00:38,938 --> 00:00:43,876
like my major, I was
very careful about it

15

00:00:43,876 --> 00:00:47,313
and I became a military
surgeon in the area

16

00:00:47,313 --> 00:00:49,315
of aerospace medicine.

17

00:00:49,315 --> 00:00:53,018
>> After graduation from the
Kirov Military Medical Academy,

18

00:00:53,018 --> 00:00:54,086
Kotov went to work

19

00:00:54,086 --> 00:00:56,122
at the Gugarin Cosmonaut
Training Center

20

00:00:56,122 --> 00:00:59,692
as a doctor studying altitude
physiology and the effects

21

00:00:59,692 --> 00:01:01,293
of space flight on
the human body.

22

00:01:01,293 --> 00:01:04,730

At the same time he studied
diagnostics and methods

23

00:01:04,730 --> 00:01:08,567
of pilot selection and also
earned a degree in patenting.

24

00:01:08,567 --> 00:01:13,405
In 1996 he entered Air Force
Pilot School and was selected

25

00:01:13,405 --> 00:01:15,107
for cosmonaut training.

26

00:01:15,107 --> 00:01:17,776
He made his first
space flight in 2007

27

00:01:17,776 --> 00:01:19,411
and completed two space walks

28

00:01:19,411 --> 00:01:22,314
as a flight engineer
on Expedition 15.

29

00:01:22,314 --> 00:01:26,352
He did another EVA during
Expedition 22 before becoming

30

00:01:26,352 --> 00:01:30,890
Commander of the Station
for Expedition 23 in 2010.

31

00:01:30,890 --> 00:01:33,025
Kotov then served
as Deputy Chief

32

00:01:33,025 --> 00:01:36,462
of the GCTC before starting
training for this mission,

33

00:01:36,462 --> 00:01:38,397
which presented another
opportunity

34

00:01:38,397 --> 00:01:41,500
to fulfill the human
instinct to learn new things.

35

00:01:41,500 --> 00:01:42,735
[Foreign language]

36

00:01:42,735 --> 00:01:47,606
>> It's a desire to
understand the world around you,

37

00:01:47,606 --> 00:01:56,182
to expand the area where we
live, to explore space, Mars,

38

00:01:56,182 --> 00:02:05,191
moon, other star systems, so
it's a question about a desire

39

00:02:07,860 --> 00:02:09,461
to learn something new.

40

00:02:09,461 --> 00:02:13,599
>> Dr. Sergey Ryazanskiy is a
rarity among Russian cosmonauts:

41

00:02:13,599 --> 00:02:16,835
one who was born and
raised in Moscow.

42

00:02:16,835 --> 00:02:20,806
As the son of engineers and a
grandson of Mikhail Ryazanskiy,

43

00:02:20,806 --> 00:02:23,676
a leading Soviet engineer
specializing in missile

44

00:02:23,676 --> 00:02:27,479
and spacecraft radio guidance,
Ryazanskiy had his sights set

45

00:02:27,479 --> 00:02:29,715
on a career in science
at a young age.

46

00:02:29,715 --> 00:02:30,983
[Foreign language]

47

00:02:30,983 --> 00:02:34,620
>> When I was a child I
wanted to become a biologist,

48

00:02:34,620 --> 00:02:37,456
so I was studying in
a specialized school

49

00:02:37,456 --> 00:02:39,992
where we were majoring
in biology,

50

00:02:39,992 --> 00:02:42,261
so I knew that I
would be a scientist.

51

00:02:42,261 --> 00:02:45,931
I think I knew that since
I was in the sixth grade.

52

00:02:45,931 --> 00:02:52,972
I knew that I would try to go to
the Moscow State Universities...

53

00:02:52,972 --> 00:02:55,941

>> ...where he graduated
with a degree in Biochemistry

54

00:02:55,941 --> 00:02:58,110
and went straight to
work at the Institute

55

00:02:58,110 --> 00:03:01,747
for Biomedical Problems at the
Russian Academy of Sciences.

56

00:03:01,747 --> 00:03:03,582
His specialization in ways

57

00:03:03,582 --> 00:03:06,452
to prevent the adverse
effects caused by the absence

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00:03:06,452 --> 00:03:09,655
of gravity got him involved
in the space industry

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00:03:09,655 --> 00:03:13,225
and sparked an interest in
becoming a cosmonaut himself.

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00:03:13,225 --> 00:03:17,830
In 2003 he was selected to
join IBMP's cosmonaut corps

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00:03:17,830 --> 00:03:19,398
and completed basic training

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00:03:19,398 --> 00:03:21,967
at the Gugarin Cosmonaut
Training Center.

63

00:03:21,967 --> 00:03:25,337
In 2006 he earned his
doctorate in physiology

64

00:03:25,337 --> 00:03:29,408
and space medicine, and in
2009, he was crew commander

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00:03:29,408 --> 00:03:34,980
in a 105-day-long isolation
experiment known as Mars 500.

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00:03:34,980 --> 00:03:39,752
By 2010, he was certified
as a GCTC test cosmonaut,

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00:03:39,752 --> 00:03:42,721
which he calls the most
interesting job in the world

68

00:03:42,721 --> 00:03:45,324
because it combines
so many things.

69

00:03:45,324 --> 00:03:46,725
[Foreign language]

70

00:03:46,725 --> 00:03:51,463
>> Anything you could think of
is combined by this profession.

71

00:03:51,463 --> 00:03:58,671
And being part of this
industry is very interesting.

72

00:03:58,671 --> 00:04:02,941
You have new technologists, new
approaches, and you're always

73

00:04:02,941 --> 00:04:04,843
on the edge, so to say
you always know the

74

00:04:04,843 --> 00:04:06,178

latest developments.

75

00:04:06,178 --> 00:04:08,580

It's very interesting
to live this life.

76

00:04:08,580 --> 00:04:11,483

It's very interesting
to train for this life.

77

00:04:11,483 --> 00:04:14,320

That's why I became cosmonaut.

78

00:04:14,320 --> 00:04:16,822

>> U.S. Air Force
Colonel Mike Hopkins is

79

00:04:16,822 --> 00:04:19,258

from South Central
Missouri, born in Lebanon

80

00:04:19,258 --> 00:04:23,529

and raised a few miles away
on a farm outside Richland.

81

00:04:23,529 --> 00:04:25,698

He credits his small-town
upbringing

82

00:04:25,698 --> 00:04:28,734

for his getting a chance to
try everything in high school,

83

00:04:28,734 --> 00:04:30,936

not only football
and other sports,

84

00:04:30,936 --> 00:04:32,905

but all school activities,

85

00:04:32,905 --> 00:04:36,442

and for developing his
interest in engineering.

86

00:04:36,442 --> 00:04:38,077

>> Col. Mike Hopkins:
My father was a pilot

87

00:04:38,077 --> 00:04:39,912

in the Marines back
in the early '60s.

88

00:04:39,912 --> 00:04:45,017

He flew A4s, and so there
was aviation in my family.

89

00:04:45,017 --> 00:04:47,920

So that certainly
piqued my interest in it

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00:04:47,920 --> 00:04:49,621

and my interest in space.

91

00:04:49,621 --> 00:04:54,460

My desire to become an astronaut
started back in high school.

92

00:04:54,460 --> 00:04:56,628

>> Hopkins headed to the
University of Illinois

93

00:04:56,628 --> 00:04:58,864

to study aerospace engineering.

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00:04:58,864 --> 00:05:01,667

He also walked on to the
football team and ended

95

00:05:01,667 --> 00:05:05,404

up as a starter and a team captain by the time he graduated

96

00:05:05,404 --> 00:05:08,707

with his Bachelors in Aerospace Engineering and a commission

97

00:05:08,707 --> 00:05:11,610

in the Air Force, earned through the ROTC.

98

00:05:11,610 --> 00:05:14,313

After finishing a Masters in Aerospace Engineering

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00:05:14,313 --> 00:05:17,316

at Stanford, Hopkins began his Air Force career

100

00:05:17,316 --> 00:05:21,253

in a laboratory working on space systems technologies.

101

00:05:21,253 --> 00:05:24,423

Then he moved on to become a flight test engineer,

102

00:05:24,423 --> 00:05:27,092

even spending time as an exchange officer

103

00:05:27,092 --> 00:05:30,095

at the Canadian Flight Test Center in Alberta.

104

00:05:30,095 --> 00:05:32,598

In 2002, Hopkins won a scholarship

105

00:05:32,598 --> 00:05:35,067

to study political
science in Italy,

106

00:05:35,067 --> 00:05:37,770

after which he was assigned
to work in acquisitions

107

00:05:37,770 --> 00:05:41,240

at the Pentagon and then
as a Special Assistant

108

00:05:41,240 --> 00:05:44,076

to the Vice Chairman of
the Joint Chiefs of Staff,

109

00:05:44,076 --> 00:05:45,711

the job he had when
he was selected

110

00:05:45,711 --> 00:05:48,447

as an astronaut in 2009.

111

00:05:48,447 --> 00:05:51,683

He's the first member of his
astronaut class to fly in space

112

00:05:51,683 --> 00:05:53,585

and eager to use
his mission to try

113

00:05:53,585 --> 00:05:56,622

to help satisfy our
desire to learn.

114

00:05:56,622 --> 00:06:00,192

>> Col. Mike Hopkins: Humans are
always striving for knowledge,

115

00:06:00,192 --> 00:06:02,060

for knowing what's
beyond the hill,

116

00:06:02,060 --> 00:06:07,266

for knowing how each little
thing works in our world,

117

00:06:07,266 --> 00:06:10,269

whether it's the human
itself, whether it's anything

118

00:06:10,269 --> 00:06:13,505

within biology, the
physical world, all of that,

119

00:06:13,505 --> 00:06:18,544

we have this desire to know
as much as we can about that.

120

00:06:18,544 --> 00:06:20,446

And the space station,