



Spaceto**Ground**

1
00:00:02,706 --> 00:00:04,656
"HOUSTON, STATION
ON SPACE TO GROUND."

2
00:00:05,216 --> 00:00:07,586
WELCOME TO SPACE TO
GROUND, I'M NATALIE GOGINS.

3
00:00:07,716 --> 00:00:11,796
THIS WEEK ON STATION, THE
CREW GOT FIRED UP FOR SCIENCE.

4
00:00:12,176 --> 00:00:15,696
EXPEDITION 57 COMMANDER
ALEXANDER GERST PERFORMED SOME

5
00:00:15,696 --> 00:00:17,406
NEEDED MAINTENANCE
ON THE ACME INSERT

6
00:00:17,456 --> 00:00:19,076
IN THE CIR COMBUSTION CHAMBER.

7
00:00:19,686 --> 00:00:21,746
CIR, OR COMBUSTION
INTEGRATED RACK,

8
00:00:21,946 --> 00:00:24,526
ENABLES SAFE COMBUSTION
RESEARCH IN MICROGRAVITY.

9
00:00:24,966 --> 00:00:27,556
ITS "PLUG-AND-PLAY" APPROACH
SUPPORTS A WIDE VARIETY

10
00:00:27,556 --> 00:00:29,726
OF STUDIES ON DROPLET,
SOLID FUEL,

11

00:00:29,846 --> 00:00:31,346
AND GASEOUS FUEL COMBUSTION.

12
00:00:31,496 --> 00:00:35,356
THE ACME, ADVANCED COMBUSTION
VIA MICROGRAVITY EXPERIMENTS

13
00:00:35,356 --> 00:00:38,626
PROJECT, INVESTIGATES 5
DIFFERENT STUDIES WITH THE GOALS

14
00:00:38,626 --> 00:00:41,976
OF IMPROVING FUEL EFFICIENCY,
REDUCING POLLUTION BYPRODUCTS

15
00:00:41,976 --> 00:00:44,756
FROM COMBUSTION, AND
PREVENTING SPACECRAFT FIRES

16
00:00:44,846 --> 00:00:47,086
BY BETTER UNDERSTANDING
MATERIAL FLAMMABILITY.

17
00:00:47,526 --> 00:00:49,336
AN EXTERNAL EXPERIMENT

18
00:00:49,336 --> 00:00:52,036
ON STATION IS PROVIDING
NEW INSIGHTS TO PULSARS.

19
00:00:53,106 --> 00:00:56,676
THE NEUTRON STAR INTERIOR
COMPOSITION EXPLORER, OR NICER,

20
00:00:57,076 --> 00:00:59,796
PROVIDES HIGH-PRECISION
MEASUREMENTS OF NEUTRON STARS,

21
00:00:59,996 --> 00:01:01,126
ALSO KNOWN AS PULSARS.

22

00:01:01,606 --> 00:01:04,396

PULSARS ARE THE INCREDIBLY
DENSE, CRUSHED CORES

23

00:01:04,446 --> 00:01:06,036

THAT REMAIN AFTER A SUPERNOVA.

24

00:01:06,706 --> 00:01:09,516

BECAUSE PULSARS SHINE MOST
BRIGHTLY IN NARROW BEAMS

25

00:01:09,546 --> 00:01:12,386

THAT SWEEP THE SKY AS THEY
ROTATE, THEY APPEAR TO PULSE

26

00:01:12,516 --> 00:01:13,636

LIKE A LIGHTHOUSE BEACON.

27

00:01:14,016 --> 00:01:16,786

THIS KNOWLEDGE COULD
REVOLUTIONIZE SPACE NAVIGATION

28

00:01:16,876 --> 00:01:18,606

BY USING PULSARS AS BEACONS

29

00:01:18,716 --> 00:01:20,736

TO GUIDE OUR FUTURE
EXPLORATION OF SPACE.

30

00:01:21,986 --> 00:01:25,206

THE FIRST ASTRONAUTS SLATED
TO FLY ON NEW SPACECRAFT

31

00:01:25,206 --> 00:01:27,696

FROM BOEING AND SPACEX
WERE JOINED BY A PAIR

32

00:01:27,696 --> 00:01:30,166

OF FUTURE SPACE STATION
CREW MEMBERS FROM JAPAN

33

00:01:30,616 --> 00:01:33,556

FOR A MARATHON TASTE
TEST IN NASA'S FOOD LAB.

34

00:01:33,646 --> 00:01:36,066

ALL CREW MEMBERS BOUND FOR
THE STATION GET A CHANCE

35

00:01:36,106 --> 00:01:37,636

TO SAMPLE THE COSMIC MENU

36

00:01:37,706 --> 00:01:40,396

THAT WILL SUSTAIN THEM WHILE
THEY SPEND TIME IN MICROGRAVITY.

37

00:01:41,006 --> 00:01:42,126

TO SEE THE LATEST NEWS

38

00:01:42,126 --> 00:01:44,536

AS WE MARCH TOWARDS ONCE
AGAIN LAUNCHING ASTRONAUTS

39

00:01:44,616 --> 00:01:48,096

FROM AMERICA, VISIT
[NASA.GOV/COMMERICALCREW](https://www.nasa.gov/commercialcrew).

40

00:01:49,196 --> 00:01:51,316

OUR TWITTER QUESTION
COMES FROM SHARKBAIT.

41

00:01:51,766 --> 00:01:53,686

THEY WANT TO KNOW:
WHAT IS THE BEST TIME

42

00:01:53,686 --> 00:01:56,446

TO ATTEMPT HAM RADIO CONTACT
WITH CREW ABOARD THE ISS?

43

00:01:56,446 --> 00:01:59,366

HAM RADIO HAS BEEN A PART

44

00:01:59,366 --> 00:02:01,946

OF HUMAN SPACE EXPLORATION
SINCE 1983.

45

00:02:02,576 --> 00:02:04,696

CREWMEMBERS HAVE THE
OPTION OF MAKING CALLS

46

00:02:04,696 --> 00:02:06,666

WITH HAM RADIO AMATEURS
ON THEIR PERSONAL TIME.

47

00:02:07,346 --> 00:02:09,326

YOUR BEST CHANCE IS
LIKELY ON THE WEEKENDS

48

00:02:09,426 --> 00:02:12,426

BETWEEN 06:00 AND 21:30 GMT.

49

00:02:13,026 --> 00:02:14,946

ADDITIONALLY, THE AMATEUR RADIO

50

00:02:14,946 --> 00:02:17,686

ON THE INTERNATIONAL SPACE
STATION PROGRAM, OR ARISS,

51

00:02:18,186 --> 00:02:21,236

CONNECTS STUDENTS IN SCHOOLS
OR PUBLIC FORUMS LIKE MUSEUMS

52

00:02:21,486 --> 00:02:22,696

WITH CREW MEMBERS ONBOARD.

53

00:02:23,306 --> 00:02:26,036

APPLICATIONS ARE OPEN

NOW UNTIL NOV 30TH

54

00:02:26,106 --> 00:02:30,326

FOR 2019 SESSIONS

AT WWW.ARISS.ORG.