



1
00:00:04,039 --> 00:00:01,210

[Music]

2
00:00:06,260 --> 00:00:04,049

when ground controllers ask American

3
00:00:08,299 --> 00:00:06,270

astronauts and Soviet cosmonauts in the

4
00:00:11,209 --> 00:00:08,309

earth orbiting apollo-soyuz test project

5
00:00:13,129 --> 00:00:11,219

mission in July what's cooking they will

6
00:00:15,919 --> 00:00:13,139

not necessarily be inquiring about an

7
00:00:17,840 --> 00:00:15,929

evening meal of hotdogs of borscht they

8
00:00:20,060 --> 00:00:17,850

will probably be referring to the seven

9
00:00:21,980 --> 00:00:20,070

scientific experiments which will be

10
00:00:24,109 --> 00:00:21,990

conducted in a multi-purpose electric

11
00:00:25,910 --> 00:00:24,119

furnace to demonstrate the effects of

12
00:00:28,040 --> 00:00:25,920

weightlessness on crystallization

13
00:00:30,440 --> 00:00:28,050

convection and other materials

14

00:00:33,440 --> 00:00:30,450

processing techniques

15

00:00:35,270 --> 00:00:33,450

mr. art boys Marshall Center principal

16

00:00:38,570 --> 00:00:35,280

investigator for the furnace explains

17

00:00:40,460 --> 00:00:38,580

its operation the furnace and his

18

00:00:42,740 --> 00:00:40,470

control package are mounted in the

19

00:00:45,320 --> 00:00:42,750

docking module and receive electrical

20

00:00:47,420 --> 00:00:45,330

power from the command module the

21

00:00:49,850 --> 00:00:47,430

furnace as a resistance heater that

22

00:00:52,400 --> 00:00:49,860

melts materials up to eleven hundred and

23

00:00:54,799 --> 00:00:52,410

fifty degrees centigrade the control

24

00:00:57,049 --> 00:00:54,809

package automatically programs each

25

00:01:00,229 --> 00:00:57,059

experiments through its thermal cycles

26
00:01:02,740 --> 00:01:00,239
of heat up stroke and cool-down each

27
00:01:05,299 --> 00:01:02,750
experiment consists of three cartridges

28
00:01:08,510 --> 00:01:05,309
each cartridge has from one to three

29
00:01:10,850 --> 00:01:08,520
different sample materials inside the

30
00:01:13,670 --> 00:01:10,860
cartridges are inserted into the street

31
00:01:16,940 --> 00:01:13,680
furnace cavities and locked into place

32
00:01:18,830 --> 00:01:16,950
with these access ports gas hardware

33
00:01:20,149 --> 00:01:18,840
design and sustaining engineering for

34
00:01:23,000 --> 00:01:20,159
the furnace are performed by the

35
00:01:26,180 --> 00:01:23,010
Marshall Space Flight Center including

36
00:01:27,590 --> 00:01:26,190
the furnace ten of the 27 experiments to

37
00:01:30,080 --> 00:01:27,600
be conducted on the mission are to