



1  
00:00:04,579 --> 00:00:02,600  
sound suppression water system has been

2  
00:00:07,160 --> 00:00:04,589  
activated protecting endeavour and the

3  
00:00:09,410 --> 00:00:07,170  
launch pad from acoustical energy we're

4  
00:00:15,860 --> 00:00:09,420  
go for main engine start we have main

5  
00:00:18,400 --> 00:00:15,870  
engine start four three two one booster

6  
00:00:21,380 --> 00:00:18,410  
ignition and liftoff of Endeavour

7  
00:00:24,080 --> 00:00:21,390  
completing Kibo and fulfilling Japan's

8  
00:00:28,440 --> 00:00:24,090  
hope for an out-of-this-world space

9  
00:00:34,440 --> 00:00:32,550  
is an endeavour roll program Roger roll

10  
00:00:36,350 --> 00:00:34,450  
endeavour

11  
00:00:38,430 --> 00:00:36,360  
this is Mission Control Houston

12  
00:00:40,770 --> 00:00:38,440  
deference roll maneuver is being

13  
00:00:42,690 --> 00:00:40,780

completed it's now going into a heads

14

00:00:45,420 --> 00:00:42,700

down position on track for its flight to

15

00:00:47,610 --> 00:00:45,430

the International Space Station applying

16

00:00:49,140 --> 00:00:47,620

it 400 miles per hour one mile in

17

00:00:58,940 --> 00:00:49,150

altitude and seven miles downrange

18

00:01:03,060 --> 00:01:01,500

depress engines were Thorold bottling

19

00:01:04,560 --> 00:01:03,070

down as the orbiter passes through the

20

00:01:18,220 --> 00:01:04,570

area of maximum pressure on the vehicle

21

00:01:26,290 --> 00:01:24,210

endeavour go at throttle up going paola

22

00:01:28,210 --> 00:01:26,300

the three engines on board are

23

00:01:30,250 --> 00:01:28,220

throttling back up endeavour flying at

24

00:01:36,070 --> 00:01:30,260

1100 miles per hour ten miles in

25

00:01:37,570 --> 00:01:36,080

altitude in ten miles downrange at

26

00:01:39,580 --> 00:01:37,580

liftoff the fully filled Shuttle

27

00:01:41,350 --> 00:01:39,590

boosters and external tank wait four and

28

00:01:42,910 --> 00:01:41,360

a half million pounds the total thrust

29

00:01:47,230 --> 00:01:42,920

at launch was six million four hundred

30

00:01:48,760 --> 00:01:47,240

and twenty-five thousand pounds one

31

00:01:50,890 --> 00:01:48,770

minute 33 seconds into the flight

32

00:01:53,350 --> 00:01:50,900

endeavour flying at 1,900 miles per hour

33

00:01:55,690 --> 00:01:53,360

17 miles in altitude and 16 miles

34

00:01:57,520 --> 00:01:55,700

downrange all systems continue to

35

00:01:59,170 --> 00:01:57,530

function well and ever has three good

36

00:02:01,240 --> 00:01:59,180

main engines through good power

37

00:02:03,190 --> 00:02:01,250

generating fuel cells and three good

38

00:02:07,000 --> 00:02:03,200

auxiliary power units for the hydraulic

39

00:02:08,410 --> 00:02:07,010

system will be standing by for burnout

40

00:02:10,720 --> 00:02:08,420

and separation of the solid rocket

41

00:02:13,270 --> 00:02:10,730

boosters combined the twin boosters

42

00:02:29,590 --> 00:02:13,280

provide 5.3 million pounds of thrust to

43

00:02:34,930 --> 00:02:32,470

booster officer confirms the SRBs or