



1  
00:00:04,230 --> 00:00:02,710  
okay let's go there capcom on the hot

2  
00:00:07,030 --> 00:00:04,240  
fire okay all flight controllers going

3  
00:00:10,709 --> 00:00:07,040  
around the horn gonna go for undocking

4  
00:00:13,589 --> 00:00:10,719  
okay retro go final go go control go

5  
00:00:16,470 --> 00:00:13,599  
tell come go ginseng go ecom go surgeon

6  
00:00:19,029 --> 00:00:16,480  
go capcom go for unknocking

7  
00:00:22,390 --> 00:00:19,039  
armstrong aldrin and collins arrived at

8  
00:00:24,790 --> 00:00:22,400  
the moon on saturday july 19th when we

9  
00:00:27,429 --> 00:00:24,800  
did get close and we rolled down and saw

10  
00:00:29,910 --> 00:00:27,439  
it for the first time it was uh it was a

11  
00:00:32,050 --> 00:00:29,920  
revelation it was gigantic

12  
00:00:34,870 --> 00:00:32,060  
it filled our entire window

13  
00:00:37,430 --> 00:00:34,880

[Music]

14

00:00:40,389 --> 00:00:37,440

the next day sunday july 20th was

15

00:00:43,270 --> 00:00:40,399

landing day in a lot of anticipation we

16

00:00:45,910 --> 00:00:43,280

finally come to the day the moment

17

00:00:47,910 --> 00:00:45,920

that this is about to commence

18

00:00:50,229 --> 00:00:47,920

landing on the moon was absolutely the

19

00:00:53,110 --> 00:00:50,239

most difficult piece of any apollo

20

00:00:54,790 --> 00:00:53,120

mission okay think about it as a

21

00:00:58,069 --> 00:00:54,800

controlled fall

22

00:01:00,709 --> 00:00:58,079

out of lunar orbit the problem is in

23

00:01:03,430 --> 00:01:00,719

this controlled fall out of orbit

24

00:01:06,310 --> 00:01:03,440

you only have enough fuel for one try

25

00:01:07,990 --> 00:01:06,320

capcom or go for landing altitude 4200

26

00:01:10,550 --> 00:01:08,000

for landing over

27

00:01:12,270 --> 00:01:10,560

the trajectory had been wrong we had

28

00:01:15,270 --> 00:01:12,280

they were targeted into this

29

00:01:18,230 --> 00:01:15,280

inhospitable place then it had to fly

30

00:01:21,830 --> 00:01:18,240

over this area at a high forward

31

00:01:24,310 --> 00:01:21,840

velocity then pitch up to slow down so

32

00:01:26,630 --> 00:01:24,320

that kill that forward velocity and then

33

00:01:29,590 --> 00:01:26,640

start down like a helicopter

34

00:01:32,230 --> 00:01:29,600

so now we're critical fuel state

35

00:01:35,350 --> 00:01:32,240

and that's why the 60-second call was

36

00:01:37,990 --> 00:01:35,360

given and then the 30-second call then i

37

00:01:41,590 --> 00:01:38,000

really got nervous was calling out 25

38

00:01:42,550 --> 00:01:41,600

seconds of fuel left and then 20 seconds

39

00:01:45,190 --> 00:01:42,560

of view

40

00:01:48,469 --> 00:01:45,200

oh geez

41

00:01:50,230 --> 00:01:48,479

okay engine stop apa at a deep end boat

42

00:01:51,749 --> 00:01:50,240

control both auto definition command

43

00:01:52,570 --> 00:01:51,759

override off

44

00:02:01,270 --> 00:01:52,580

engine arm off

45

00:02:03,510 --> 00:02:01,280

[Music]

46

00:02:04,469 --> 00:02:03,520

tranquility base here the eagle has

47

00:02:07,030 --> 00:02:04,479

landed

48

00:02:08,949 --> 00:02:07,040

roger twain tranquility we copy on the

49

00:02:10,790 --> 00:02:08,959

ground you got a bunch of guys about to

50

00:02:12,470 --> 00:02:10,800

turn blue we're breathing again thanks a

51  
00:02:14,390 --> 00:02:12,480  
lot

52  
00:02:16,550 --> 00:02:14,400  
the landing to me was a great

53  
00:02:17,830 --> 00:02:16,560  
celebration the nation was almost

54  
00:02:19,910 --> 00:02:17,840  
euphoric

55  
00:02:21,510 --> 00:02:19,920  
well it proved that

56  
00:02:22,710 --> 00:02:21,520  
the united states

57  
00:02:25,350 --> 00:02:22,720  
could

58  
00:02:30,970 --> 00:02:25,360  
accomplish tremendous goals if they work