
6062

1
00:00:00,767 --> 00:00:03,870
[Music]

2
00:00:03,870 --> 00:00:08,274
70 years ago, on October
14, 1947, the X-1 rocket

3
00:00:08,274 --> 00:00:11,678
aircraft made history
with the first supersonic

4
00:00:11,678 --> 00:00:12,512
flight.

5
00:00:12,512 --> 00:00:16,149
Traveling around 700
miles an hour, the X-1 was

6
00:00:16,149 --> 00:00:18,518
faster than the
speed of sound.

7
00:00:18,518 --> 00:00:21,821
Piloted by United States
Air Force Test Pilot Chuck

8
00:00:21,821 --> 00:00:24,858
Yeager, the X-1 was
nicknamed Glamourous

9
00:00:24,858 --> 00:00:26,693
Glennis for Yeager's wife.

10
00:00:29,429 --> 00:00:32,031
Built solely for
experimental purposes,

11
00:00:32,031 --> 00:00:35,835
the X-1 established research

aircraft.

12
00:00:35,835 --> 00:00:39,839
X-Planes are experimental aircraft used to test new

13
00:00:39,839 --> 00:00:42,175
aerodynamic concepts and technologies.

14
00:00:42,542 --> 00:00:43,543
Ready to Launch.

15
00:00:43,543 --> 00:00:44,544
5.

16
00:00:44,544 --> 00:00:45,211
4.

17
00:00:45,211 --> 00:00:46,212
3.

18
00:00:46,212 --> 00:00:47,046
2.

19
00:00:47,046 --> 00:00:47,981
1.

20
00:00:58,558 --> 00:01:03,763
50 years ago, on October
3, 1967, the X-15 rocket

21
00:01:03,763 --> 00:01:06,766
aircraft set a
new speed record.

22
00:01:06,766 --> 00:01:12,906
Flying at mach 6.7 or
4,520 miles per hour,

23

00:01:12,906 --> 00:01:16,709
William J "Pete" Knight piloted this record breaking flight.

24
00:01:16,709 --> 00:01:21,848
Flying faster and higher
than ever before, pilots

25
00:01:21,848 --> 00:01:24,751
qualified as astronauts
reaching the edge of outer

26
00:01:24,751 --> 00:01:27,954
space, as high as 50 miles
into the atmosphere.

27
00:01:29,856 --> 00:01:32,859
To push the envelope,
NASA pioneered new

28
00:01:32,859 --> 00:01:36,529
technologies, engines and
materials.

29
00:01:36,529 --> 00:01:38,665
NASA is building on that
legacy of experimental

30
00:01:38,665 --> 00:01:40,600
aircraft today.

31
00:01:40,600 --> 00:01:43,503
A new X-plane, called
the Low Boom Flight

32
00:01:43,503 --> 00:01:47,006
Demonstrator (LBFD),
is being developed to

33
00:01:47,006 --> 00:01:48,508
minimize sonic booms.

34
00:01:48,508 --> 00:01:49,943
\{Sonic Boom\}

35
00:01:49,943 --> 00:01:52,645
A sonic boom
is made by shock waves

36
00:01:52,645 --> 00:01:55,048
when an aircraft travels
through the air faster

37
00:01:55,048 --> 00:01:56,416
than the speed of sound.

38
00:01:57,250 --> 00:01:59,853
Current noise regulations
restrict supersonic

39
00:01:59,853 --> 00:02:01,120
flights overland.

40
00:02:01,120 --> 00:02:04,324
Unique shaping and other
design features will

41
00:02:04,324 --> 00:02:07,660
diminish the loud sonic
boom to the level of a

42
00:02:07,660 --> 00:02:08,528
soft "thump".

43
00:02:09,462 --> 00:02:12,632
Another new NASA X-plane
is electric and battery

44
00:02:12,632 --> 00:02:13,500
powered.

45
00:02:13,500 --> 00:02:18,304
The X-57 is testing new
propulsion technology.

46
00:02:18,304 --> 00:02:21,641
12 motors provide extra
lift during the take-off

47
00:02:21,641 --> 00:02:25,712
and then 2 cruise
motors take over.

48
00:02:25,712 --> 00:02:29,215
Distributing energy over
the entire wing makes the

49
00:02:29,215 --> 00:02:31,251
X-57 more efficient.

50
00:02:32,452 --> 00:02:36,689
Flying above and beyond,
NASA continues to push the