

The Mercury 13: Part One

In August 1955, the space race began between the United States and the Soviet Union. America began working tirelessly to send a man on the moon before the Russians. An early step towards this goal was Project Mercury. It was the first mission to involve human spaceflight, launching a human into Earth's orbit and returning them safely back to Earth.

5 NASA began the process of selecting suitable candidates and they mainly focussed on military test pilots as these men had already passed stringent military testing and training.

William Randolph Lovelace II - a NASA physician - was in charge of developing the physical and mental tests that the candidates would undergo, ensuring that those chosen would be capable of handling the difficulties of operating in microgravity. Doctors were unsure what

10 astronauts might encounter at first, so they had to guess the experiences. This meant that the tests were thorough and gruelling.

Whilst developing the tests, Lovelace became curious about how women's bodies might withstand the rigors of spaceflight. In 1959, he and Don Flickinger, an Air Force Brigadier general, invited Jerrie Cobb to be their first test subject. She was an accomplished pilot and

15 was very successful on the test. As a result, they expanded the unofficial program and invited more women to take the same physical tests. All of the women chosen had recorded a minimum of 1000 hours of flying experience.

Lovelace formed the Mercury 13; a team of female American pilots. His *Woman in Space* Program, however, was totally separate to NASA's Project Mercury. It was run in Lovelace's

20 own laboratory in Albuquerque, New Mexico, and was privately funded by the husband of Jacqueline Cochran. Cochran was a world-famous aviator and a contemporary of Amelia Earhart. She also headed up the WASP (Women Airforce Service Pilots) program during World War Two, in order to free up men for combat. They flew aircraft to where they needed to go, and they did so with the same training or less than the men had had.

25 The first phase of tests focused on the physical side of spaceflight. There were general body tests and x-rays but there were also far more invasive and uncomfortable tests. These included electric shocks to test reflexes, ice water injected into their ear to see how fast they recover from vertigo and a rubber tube to swallow so the doctors could test their stomach acid levels. 13 women passed the initial series of tests and Cobb nicknamed them the First

30 Lady Astronaut Trainees, or FLATs, later dubbed the Mercury 13. Cochran did not make the cut.

The women were Myrtle Cagle, Jerrie Cobb, twin sisters Marion and Janet Dietrich, Wally Funk, Rhea Woltman, Sarah Gorelick, Jean Hixson, Jerri Sloan, Gene Nora Stumbough, Irene

35 Leverton, Bernice Steadman, and Jane Briggs Hart. Hart was a 41-year-old mother of eight, making her the oldest of the FLATs. 23-year-old Wally Funk was the youngest.

After the first phase of tests, Cobb, Woltman and Funk travelled to Oklahoma City to undergo the second phase, consisting of psychological evaluations and an isolation tank test. The remaining women were unable to join them due to family and job commitments. They were told to simply lay floating in the tank of water with ear plugs and a foam float for as

40 long as possible. It was called the 'Sensory Deprivation Chamber' as it led people to lose all their senses. The results gathered were fascinating; the men had struggled but the women found it calming. An average person could supposedly handle three hours before they might begin hallucinating. Cobb set a record; managing to remain in the tank for nine and a half hours.

45 Unlike the men applying for Project Mercury, the women had to complete their tests alone or in pairs. It was 1994 before they met as a group for the first time and sadly, two of them had died by then.

- 1 Why were military test pilots the main candidates for Project Mercury?
- A. They had proven themselves to be manly enough
 - B. They had already passed military tests and training
 - C. They were the bravest
 - D. The military already liked them
- 2 Why was the isolation tank called the 'Sensory Deprivation Chamber'?
- A. It made you lose your sense of taste
 - B. It made you lose your sense of touch and sight
 - C. It enhanced all of your senses
 - D. It made you lose all of your senses
- 3 Which of the following statements is not true?
- A. Lovelace's laboratory was not in America
 - B. The Mercury 13 were completely separate to NASA's Project Mercury
 - C. Hart had multiple children
 - D. The women never did tests as a group
- 4 What does FLATs stand for?
- A. Foremost Lady Astronaut Trainees
 - B. First Lady Airforce Trainees
 - C. First Lady Astronaut Trainees
 - D. Frontrunning Lady Astronaut Trainees
- 5 Which combination of women underwent the second phase of testing?
- A. Cobb, Funk and Woltman
 - B. Woltman, Cochran and Funk
 - C. Cobb, Hart and Funk
 - D. Cobb, Hart and Woltman

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Which of the following statements is **not** true?

- A. The second phase of tests consisted of psychological tests
- B. Lovelace started the program because he was curious how women's bodies might react to spaceflight
- C. Doctors knew what astronauts would encounter in spaceflight
- D. Lovelace was a NASA employee

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"Cochran did not make the cut." What is meant by this?

- A. Cochran was not willing to break the bad news to unsuccessful candidates
- B. Cochran was an unsuccessful candidate
- C. Cochran was meant to make funding cuts to the program but didn't
- D. Cochran did not decide which candidates were unsuccessful

8

What was Project Mercury's mission?

- A. To put women on the moon
- B. To put women in space
- C. To put men on the moon
- D. To put a man into space and into Earth's orbit

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Where did the second phase of tests take place?

- A. Albuquerque
- B. Mexico
- C. Florida
- D. Oklahoma City

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When did the Mercury 13 meet as a group for the first time?

- A. 35 years after Cobb's first test
- B. In the final decade of the 19th century
- C. In the penultimate decade of the 20th century
- D. 34 years after their test in Oklahoma City

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Of the women chosen for Lovelace's test, what was the minimum amount of flying experience they had to have clocked?

- A. 1000 minutes
- B. 60,000 hours
- C. 60,000 minutes
- D. 60 hours

12

What was the space race?

- A. America and Russia were in a race to put a man in space
- B. America and Russia wanted to hold a race in space
- C. America and Russia would one day set off at the same time and race rockets to the moon
- D. America and Russia were in a race to put a man on the moon

13

How did the women do in the second phase of tests?

- A. They did better than the men, feeling much calmer in the tank and staying there for longer
- B. They did the same as the men, staying in for the same amount of time
- C. They did not do as well as the men did
- D. They were stressed in the tank but stayed in for longer

14

"... the tests were thorough and gruelling." Which of the following words is synonymous with *"gruelling"*?

- A. taxing
- B. gross
- C. grievous
- D. boring

15

What job did the WASPs have during World War Two?

- A. They had to fly the military aircraft in combat
- B. They had to fly the military aircraft to where they were needed
- C. They had to test the military aircraft before it could be flown long distances
- D. They had to act as decoys and distract enemy planes

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Which of the following was not included in the first phase of tests?

- A. An electric shock
- B. An injection of water in the ear
- C. The insertion of rubber tubes in the ear
- D. The swallowing of rubber tubes

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Approximately how many years were there between the eldest and youngest of the FLATs?

- A. 20 years
- B. 17 years
- C. 19 years
- D. 18 years

18

What was particularly impressive about Cobb's test results in Oklahoma City?

- A. She did not even hallucinate
- B. She set a record for laying there for nine and a half hours
- C. She did not lose her senses
- D. She only lost two of her five senses

19

"Cochran was a world-famous aviator and a contemporary of Amelia Earheart."
What is meant by this?

- A. She was a famous pilot who was flying at the same time as Earheart
- B. She was a famous pilot who was flying after Earheart
- C. She was a famous pilot who was flying before Earheart
- D. She was a famous pilot who regarded Earheart with contempt

20

Who was Cobb?

- A. The eldest of the Mercury 13
- B. The first woman NASA chose to undergo tests
- C. The first woman Lovelace chose to undergo tests
- D. An Air Force Brig. General

Answers

1	B
2	D
3	A
4	C
5	A
6	C
7	B
8	D
9	D
10	A
11	C
12	D
13	A
14	A
15	B
16	C
17	D
18	B
19	A
20	C