

# APOLLO MISSION

- 1) how the flight computer aboard apollo mission manages to get men to the moon with only tiny computer power?
- 2) How were bugs woven into the system?
- 3) How is the comparison between apollo guidance computer and iPhone 6 is tricky?
- 4) Would trust your life in couple of iPhone than in AGC?
- 5) What the testing in 1966 revealed?
- 6) What are the back up plans incase if the system was failed or mission was aborted?

**1) There were four computers controlling apollo craft. They were:**

- Saturn launch vehicle digital computer (LVDC):
- Apollo guidance computer (AGC): the two types of such computer are those which was used to get from earth orbit to moon and back. It had a unique operating system like unix, linux, windows and apple IOS. In AGC the programs control how much time they got depending on how important they were like important operation got more time while the non-essential didn't.
- Lunar lander: control the landing and send back the command module and docking.
- The fourth computer was used if the landing computer failed or they ran out. So, there hasn't been use in any mission because it was to control emergency abort and ascent.

2) **Problems that were raised:** More issue with limited resources available since the task that they meant to do increased in both number and sophistication. The computer had a performance during the first generation of personal computer with 2k of ram and 36K of storage rope core memory or ROM.

3) **The comparison between apollo guidance computer and iPhone 6 is tricky** because ACG was not general-purpose computer. It was built for very specific reason and also, they 48 years gap in technology meaning we can only get rough estimate on the difference.

iPhone 6	ACG
has 1.6B transistor	has 12300 transistor
1GB RAM	488000 times less then iPhone
128gb	3.5 M time less then iPhone

- 4) **In 1966 ill-fated apollo 1 was revealed.** It became apparent that the bugs in the software meant that the AGC could not be relied upon. It was decided IBM mainframe computer on the ground would do the course calculation.
- 5) The automatic on and off system on the AGC saved the landing back to the earth.

**Summary:** Early 19 was the start were technology started to take their big step. The mission apollo where human was sent to the moon was the revolutionary mission that bought the huge change in the lifestyle. With lots of struggle going through ups and downs passing through the

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failure Apollo mission was a success. Working with limited resources AGC became capable to fly the people to the moon six times in total which counts as a huge success.