Apollo 13
The Long Burn

By Ciarán Handley

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Apollo 13
Chapter 1
The Long Burn

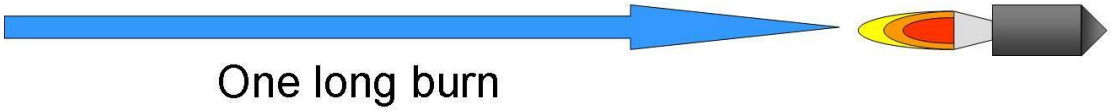
Ok, here is the problem

We are on the Apollo 13 mission which has suffered an explosion on board. The ship is damaged and the situation is dire. The ship's computer is down and the crew need to make a long burn manually. Get this wrong and the crew die.

We need to pull a solution out of nowhere.

First of all, let me give NASA's solution

NASA's solution was to fire the engines in *one long burn*. This was for a course correction to correct their trajectory. The long burn worked and the crew were saved. It was a success.



Apollo 13 Story Part 6 – Adjusting Angle of Re-entry

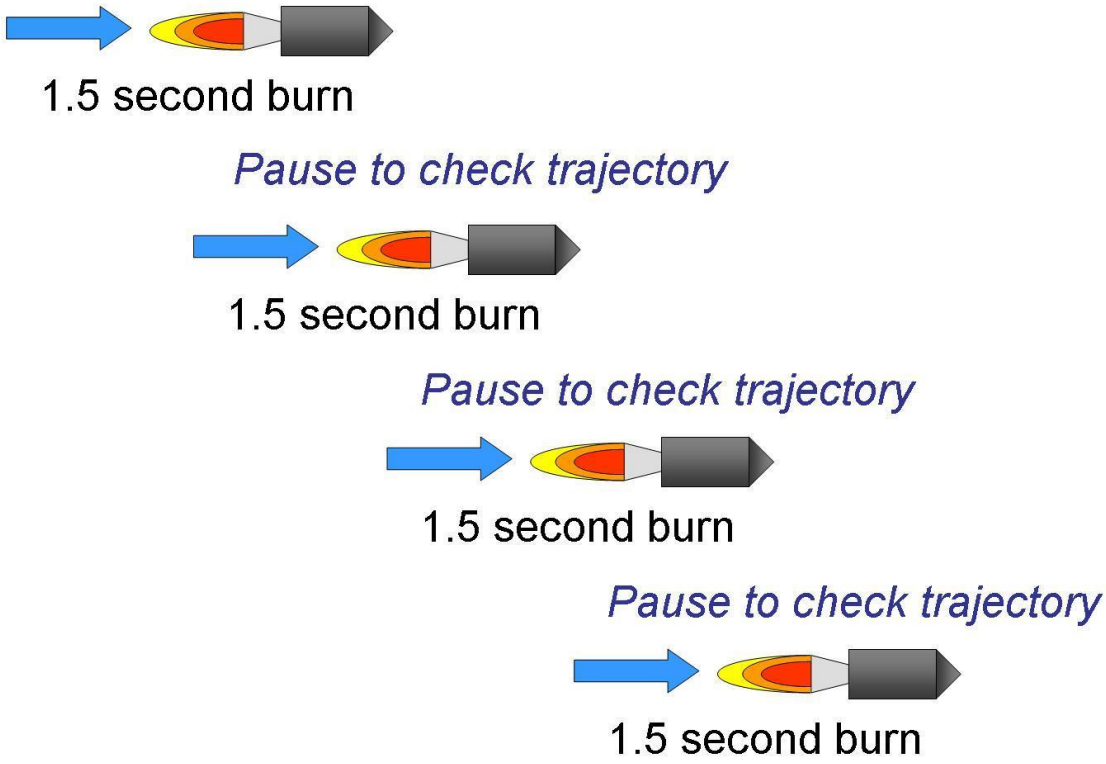
The solution worked. The crew made it home.

But it was a close call.

Might there have been another way of doing it? A safer way?

Yes.

Let me give you the solution I would have employed.



*Instead of one long burn I would have made a **series of shorter burns**, say about 1.5 seconds for each burn*

This would allow the crew to check the trajectory after each micro-burn and adjust accordingly.

The crew could have made a number of smaller course corrections at their leisure, with time to check each adjustment. Time to correct any course deviation.

By making a series of shorter burns it is much, much easier to get the course correction spot on.

No fuss. No panic. Far less risk.

And much, much simpler.

Genius, wha?

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End