

Gartmore Heritage Society Presents How Apollo Flew to the Moon (and back)

BLACK BULL INN

Wednesday 22nd March £5 (Children Free)

Late one evening in July 1969 everyone in Scotland (with a TV) was watching only one thing - Astronauts Neil Armstrong and Buzz Aldrin landing on the Moon.

This moment in history was the climax of the extraordinary Apollo 11 mission.

Everyone watched live TV from the moon's surface as the two astronauts bounced about in the Moon's weak gravity. To achieve this audacious feat of political one-upmanship, the United States government mobilised 400,000 people and spent 4 per cent of its annual budget. Huge resources were spent on building machines, ground infrastructure, and training the crews.

But just how was an Apollo mission to the Moon carried out?

The Apollo missions represent the epitome of post-war ingenuity in the West, but the development of the program was extremely difficult. Many issues threatened to shatter any chance of success, so the execution of this incredible mission demanded the very best of the engineers and managers at NASA.

There were tragedies and near misses. Three astronauts died in the Apollo 1 spacecraft, and the oxygen supply exploded on Apollo 13's journey.

David Woods, is author of the acclaimed books *'How Apollo Flew to the Moon'*, and the Haynes *'Owners' Workshop Manual'* for the Saturn V Moon rocket, is manager of NASA's Apollo website and consultant to the BBC.

He'll describe the equipment and procedures that landed human beings six times on the moon's surface between 1969 and 1972, the spectacular noisy launch from the Kennedy Space Centre, and riding a rocket that belched flame from five massive F-1 engines which could empty an Olympic swimming pool in 60 seconds. He explores the celestial gravitational dance that allowed astronauts to traverse 400,000

kilometres, at 11 kilometres per second; we'll watch the drama-filled landing of the Lunar Module '*Eagle*', and see the astronauts' fiery return to Earth in a tiny conical space-craft that would fit into your living room.

He'll answer the perpetual question, *How do you have a pee in space?*

If space travel, gigantic rockets are your thing this is a must-see event. Bring your children and inspire them – this will be a mind blowing family event.