

Program Apollo — description

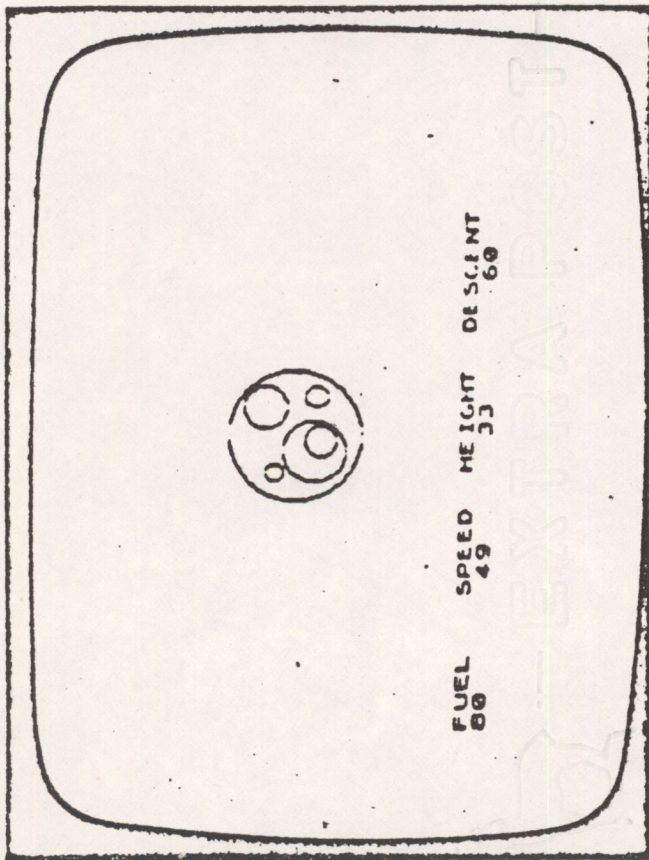


FIG 12d — DISPLAY FOR "APOLLO" GAME

The aim of the game is to successfully land a lunar module on the surface of the moon. Initially you are in a steady circular orbit. The joystick controls your thruster rockets. These apply thrust away from the moon (UP), towards the moon (DOWN), to increase tangential velocity (RIGHT) and to decrease tangential velocity (LEFT). You only use fuel when operating a thruster. A continuously updating readout of remaining fuel, speed, height above the lunar surface, and rate of descent appears on the screen. The objective is to land on the surface with a low rate of descent and a slow speed. If either of these is too large then you will crash. In the event of your fuel running out the thrusters will no longer operate and you will be left to the mercy of gravity! The FIRE button should only be used in absolute emergencies. It will fire your super boost retro rockets and accelerate away from the moon. Use this facility with care. The super boosters consume fuel at an alarming rate and are so powerful that several seconds of operation will boost you out of orbit for ever... The normal laws of gravity are obeyed. Slow down your orbital speed and you will drop into a lower orbit which increases your speed again. Applying full thrust towards the lunar surface will push you closer to the moon, but your orbital speed increases rapidly so that centrifugal acceleration throws you out further into space. Happy landings.

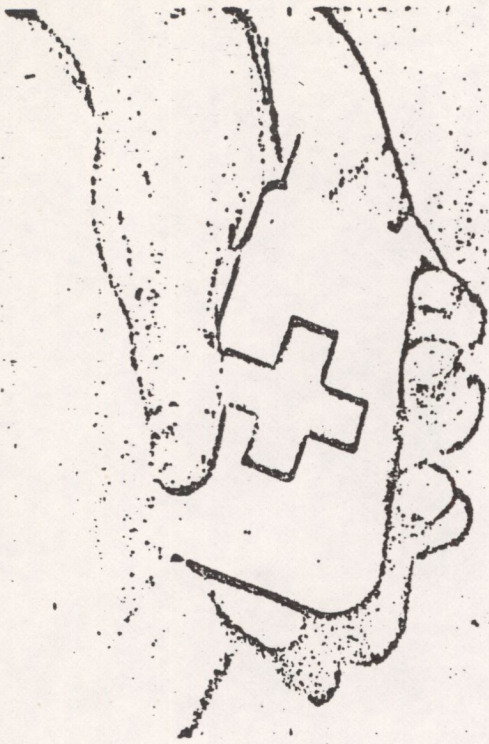


FIG 12e — JOYSTICK CONTROL IN HAND

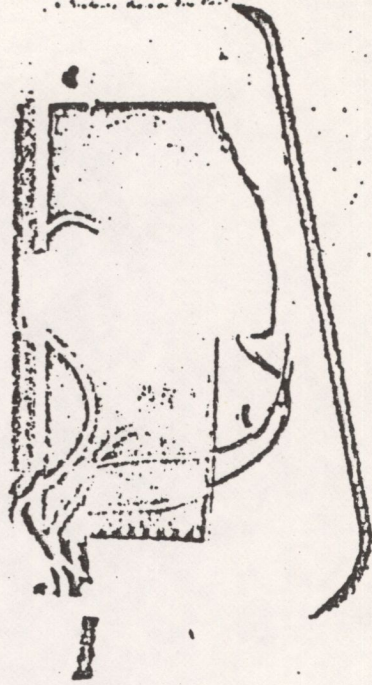


FIG 12f — INTERNAL LAYOUT OF HAND HELD JOYSTICK