

RED ALERT

A new American computer game offers Commodore 64 owners the chance to engage enemy fighters in mid-air dogfights. Flight simulation programs are common enough, but Tymac's Flyerfox has the added bonus of built-in speech routines that may be used without any additional hardware.

Although computer games have come a long way since the early days of Space Invaders (see page 615), most of these advances have been in the development of graphics. Programmers have been chiefly concerned with finding new ways of squeezing the data for an increasing number of graphic screens into a limited amount of RAM. In the meantime, the excellent sound capabilities of many home computers have largely been ignored.

Now the American company Tymac has begun UK distribution of a series of games that incorporate speech synthesis without actually using a speech interface. The first of these programs to become widely available is Flyerfox for the Commodore 64. This is a flight simulation program in which the player is 'flying' a fighter plane that has to escort a jumbo jet with a high-ranking government official aboard through disputed airspace. Enemy MiG fighters attempt to shoot down the jet, and the player's objective is to engage and destroy the enemy aircraft. The speech synthesis used in the game involves a series of messages transmitted from the jumbo to the player/pilot.

The speech synthesiser is a part of software that takes up around 11 Kbytes of memory to store the data used to recreate the required phrases. Flyerfox uses the 'linear predictive' coding method. In this system, words are converted into

digital signals, which are then stored in RAM. When a particular word is needed, the corresponding digital data is accessed, and the word reproduced via the Commodore's SID chip.

The game's graphics are in high resolution throughout. The screen display consists of the view forwards, showing the sky as seen through the cockpit window and the instrument panel. Various navigation aids are supplied, including a compass and a radar panel that shows the approaching MiG fighters, giving the player time to prepare for combat. A further aid is provided by two flashing lights, one on each side of the artificial horizon, which tell the player if the MiGs are above or below cockpit level.

The dogfight sequences are fast and very realistic. When a MiG appears onscreen, the program produces a warning beep and the player must then manoeuvre the Flyerfox so that the attacker is in the cross-hairs of his gunsight. This is not easy, as the planes dodge and dive at great speed. Once the target is fixed in the sights, the player may then fire the heat-seeking missiles; however, these are not infallible and the enemy fighters often escape.

Although the graphics are of a high quality, they do not offer much variety. The illusion of movement is achieved by changing cloud patterns, and the ground is simply a scrolling grid. It must also be said that the airliner itself adds very little to the game. Leaving aside the obvious parallel with the Korean Jumbo 007, which leaves the game open to charges of tastelessness, it is difficult to see why the airliner is included. It can be viewed from the rear only, and the Flyerfox is unable to overtake it when trying to engage the enemy fighters. Furthermore, unlike a real aircraft, the Jumbo does not even attempt to take evasive action when attacked.

Flyerfox certainly represents a new trend in computer games. Speech synthesis within a program is a subject that has been considered for some time. Now Tymac has produced a game that uses speech but which requires no special interface or hardware device. As such, it may well come to be regarded as a landmark in the development of the computer game.

Flyerfox: For Commodore 64, disk £14.95, cassette £9.95

Publishers: Tymac Corporation

Authors: Gregory Carbonaro, Charles Teufert, Ronald Pintus, Arthur Aspromatis

Joystick: Required

Format: Disk or cassette

Seek And Destroy

The pilot of the Flyerfox can glean as much information about the positions of the enemy fighters from the instrument panel as by searching the sky. The dots on the radar screen are aircraft, although not all will attack. The relative height of the MiGs is shown by the two white squares on either side of the altimeter. The compass aids in relocating the Jumbo

