TRAVELLING LIGHT

When Adam Osborne launched the first portable microcomputer in 1981, it was greeted with great enthusiasm. But such has been the advance of technology that the Osborne and the many portables it inspired now appear cumbersome and heavy when compared to the latest generation of truly portable computers.

The definition of 'portable' has had to be revised since the new generation of 'hand-held' computers. Indeed, the portable micros introduced only a few years ago are now referred to as 'transportable'. True portability is now offered by computers that carry their own power supply, display, and storage devices in a package no larger than a telephone directory.

The Epson HX-20 was the first to offer this type of portability, but now its tiny 20-character by four-line liquid crystal display shows the machine's age. The latest portables such as the Tandy 100, NEC PC-8201A, and Olivetti M10 are similarly priced but can display four times as many characters on their screens.

So what can these computers do? What are their advantages and disadvantages over conventional desk-top micros? The most obvious reason to buy a portable is to have access to full computing power anywhere and at any time. Many people spend much of their time away from their desk computer, and many unproductive hours are spent in other offices, hotel rooms, airports and trains. The portable — or hand-held — computer enables this time to be put to use.

The latest generation of portables give convenient personal computing power for science and engineering work, accounting, financial management and word processing — in fact for practically any application that conventional personal computers are used for.

Hand-held computers usually carry at least three built-in programs. These are a BASIC interpreter, a word processing program, and communications software. The Tandy 100 and the Olivetti are also equipped with built-in address and scheduling programs to allow the user to find addresses, telephone numbers and daily appointments.

The communications program is extremely important as it enables the portable to communicate with other micros and databases over the telephone network. This facility can also turn the portable micro into a telex terminal or receiver and transmitter of electronic mail. Of course, a modem or acoustic coupler has to be

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used to achieve this. In this way, an executive away from his desk can keep in touch with his head office. A journalist on location can write his story into his portable computer and transmit it immediately to the computer back at the newspaper.

The more expensive portable computers such as the Sharp PC-5000 and Epson PX-8 use the MS-DOS and CP/M operating systems common to their desk-top equivalents. They are therefore able to run a vast range of business software.

The Epson PX-8 comes with the popular Wordstar word processing program already installed in its ROM chips. The Sharp uses bubble memory plug-in cartridges that provide 128 Kbytes of extra storage each. These cartridges handle data at a much faster rate than disk drives.

On The Move
Computing on the move is becoming increasingly popular, mainly with businessmen. Some are using the new generation of 'hand-held' computers to snatch a few extra minutes word processing as they hop from taxi to train to plane. Others, such as salesmen, are breaking new ground by taking computers to their customers to generate on-the-spot estimates that otherwise would have taken days to prepare.

Executives on the move can relay data back to head office using a modem and ordinary telephone lines, or at the end of the day return to the office and send the data directly to a larger computer

In-Flight Computing
Any businessman planning to use his portable computer on an aeroplane journey may well have to choose his airline carefully. Officially, the Civil Aviation Authority (CAA) says electronic and battery operated equipment can cause interference with the aeroplanes' flight deck controls. But the airlines interpret these recommendations very differently. The German Lufthansa

airline and Australia's Qantas categorically disallow any electrical equipment on board. Pan Am, one of America's largest airlines, don't allow radios and tape recorders but do allow electronic games and computers. Whereas Japan Airlines don't mind electrical equipment of any kind, Britain's own airline, BA, prohibits computer equipment.