DEVELOPMENTS IN METEOROLOGICAL WORKSTATIONS IN THE UK METEOROLOGICAL OFFICE

Trevor Hills

UK Meteorological Office
Bracknell, UK

Summary: The UK Meteorological Office is developing three workstation systems to meet different needs. Work has started on a very powerful system (HORACE) to be installed at the two Principal Forecasting Offices in the UK. Development and operational use of a smaller system (ODS) for local offices is well advanced. A low-cost system to deliver products directly to commercial and other customers is being deployed.

1. INTRODUCTION

The UK Meteorological Office is developing three workstation systems to meet different needs:

- Meteorological Information System — MIST

- Outstation Display System — ODS

- HQSTC OASYS Replacement and CFO Enhancement — HORACE

HORACE is a very powerful system to be installed at the two Principal Forecasting offices in the UK, at Bracknell and High Wycombe. The system is at a very early stage of development—the hardware supplier has just been decided and initial software design has started.

ODS is the most mature of the three systems and is intended for use at all our other smaller forecasting offices—about 70 in all. The project started in 1985 and the first systems went operational at a few sites in 1986.

MIST is quite a new system, for use by customers not forecasters, and a few units have been deployed recently, notably to helicopter operators serving North Sea oil operations. It is also in use by RAF aircrew and operations staff at selected bases and will soon be used similarly by the Army Air Corps in Germany. Other potential users of MIST include general aviation pilots and operators, farmers, local government, retail stores and so on.

2. SYSTEM CHARACTERISTICS

The following table summarises some key characteristics of each system.

	HORACE	ODS	MIST
Users	Central forecasters	Outstation forecasters	Customers e.g. RAF and civil pilots
Locations	2 national centres	Other forecasting and briefing offices	Customers premises
Hardware architecture	File servers + workstations	MicroVAX + graphics terminals	PC
Storage	2 GB	250 MB	20 MB
Cost	£1 M	£60 K	£1·5 K
Geographical coverage	World-wide	European	National
Data retention period	A few days	One day	An hour or two

HORACE is to be based on Hewlett-Packard workstations and fileservers.

ODS started on Digital Equipment Corporation MicroVAX II computers but the latest installations use VAX 4000 machines. ODS software is identical for all models.

MIST is really a *concept*—a delivery mechanism for customised products—but the realisation currently operational with customers utilizes a PC compatible.

3. SYSTEM FUNCTIONS

MIST   Self-briefing facilities.
        – Customised to requirements.
        – Currently aviation-orientated customers.

ODS   Storage and display of all data needed by an outstation forecaster.
        – Graphical presentation of synoptic and model data.
        – Generation of flight documentation for aircrew.
Limited generation of graphics products.

HORACE   All of ODS.
Extensive generation of products.
Large format hardcopy charts.