GLOSSARY

1. GENERAL

1.01 This glossary defines several of the more commonly used terms mentioned in the Human Factors Performance Aid for Systems Development. Additional definitions can be found in Section 007-200-201, *Glossary of System Development Terms and Acronyms.*

1.02 Whenever this appendix is reissued, the reason(s) for reissue will be given in this paragraph.

2. GLOSSARY

2.01 This glossary defines terms used in this section.

Computer Subsystem (CSS)

The mechanized portion of a computer-based system. The CSS includes the computing hardware, software, data base, and other functions allocated to computers.

Contingency Analysis

The technique used to identify, analyze, and develop procedures for handling a potential error, malfunction, performance degradation, or other difficulty which may be encountered when the system becomes operational.

Decision Analysis

The identification and inspection of activities which require a human or machine decision, and the determination of how to best display and/or process the information needed to arrive at a correct decision.

Facility

The physical environment in which the information system will run (as in a data processing center) and/or in which the user will operate or work with the system (as in a room with terminals). Some human factors facility concerns are workspace layout, noise and lighting, access to equipment, storage, and personnel facilities.

Function Allocation

The assignment (allocation) of activities and processes of a function to people or machines. Functions may be partially or fully manual or mechanized. ***Function*** is often used synonymously with ***process.***

Function Analysis/Task Design

(See Task Analysis.)

Human Factors (HFs)

All of the psychological and physiological considerations pertaining to people and their work as parts of systems. The human factors of greatest interest are sensation, perception, cognition, memory, learning, and motor skills. Principles relating these factors to efficient human performance are applied to system development so as to achieve optimum human/machine integration and utilization.

Human/Machine Interface

The point at which information is exchanged between the human and machine. In information systems such interfaces can be CRT screens, printed forms and reports, keyboards, and, occasionally, cards of different types.

Input/Output Analysis

The process by which inputs to and outputs from a function or task are identified and compared. Differences among them are noted, and lower-level activities which are necessary to convert the inputs to the outputs are identified.

Job

All the work activities assigned to one person employed under a given job title. A job consists of one or more work modules (positions) which contain sufficient work to fill a normal work day.

Job Aid

(See Performance Aid.)

Means to Achieve Performance (MAP) Process

The selection of the best method or combination of methods necessary to convey procedures, skills, and knowledge to enable a user to perform effectively. The methods include user reference documents, performance aids, training, and/or personnel selection.

Performance Aid

(Synonym: Job Aid). A device or document which stores information and makes it available for use on the job. Performance aids are used to extend human capability to store and process information. They may also be used as devices to simplify or eliminate a step or steps in a task. Typically, they are developed at the same time that the procedures and practices are being worked out.

Personnel Subsystem (PSS)

That portion of a total human/machine system composed of the people who operate the system and who interface with the system at the system boundary. The PSS includes not only the people themselves, but also their tasks, tools, forms, performance aids, and training. It also includes those parts of the machine, such as screens and displays, with which people interact.

Position

(See Work Module.)

Task

A group of related discriminatory, decision, or motor activities performed by an individual within a work cycle. The performance of a task produces a meaningful product, service, or result which is readily observable, consistent from one time to another, and contributes significantly to the objectives of the system.

Task Analysis

(Also referred to as Function Analysis/Task Design.) The breaking down of human functions into smaller and smaller levels of activity to determine specific behavioral and performance characteristics required to accomplish system functions which are allocated to humans. Task Analysis is a term which is used to group several analytical techniques, such as "Input/Output Analysis," "Decision Analysis," and "Contingency Analysis." Results from these analyses are used to synthesize activities into new tasks which are later designed into work modules or positions.

Work Module

(Synonyms: Position, Human Work Module.) A collection of related tasks that can logically and effectively be assigned to one person based on processing efficiency, behavorial requirements, physical considerations, personnel qualifications, human reliability requirements, motivation factors, etc. The design of work modules is a technical effort involving analytical techniques for synthesizing tasks into larger units of work.

Workspace Layout

The physical locations and sizes of controls, displays, input/output devices, and other pieces of equipment for a specific workstation. Such layouts are usually shown as diagrams.