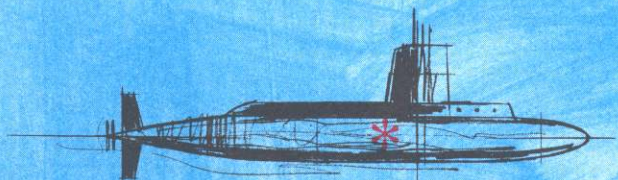
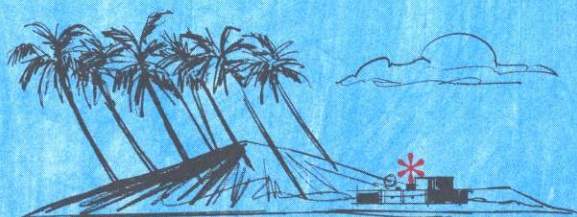
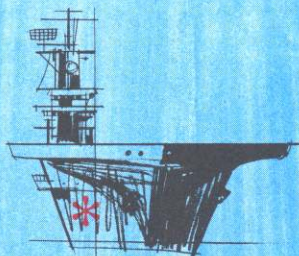
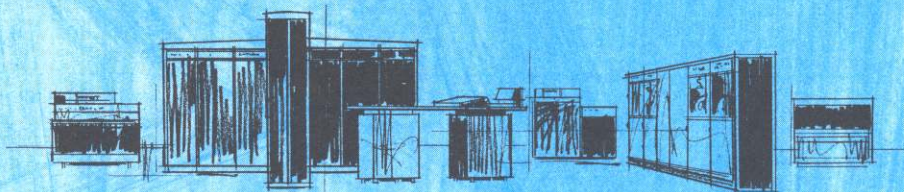
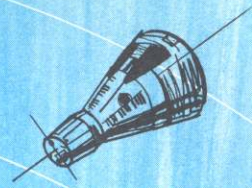


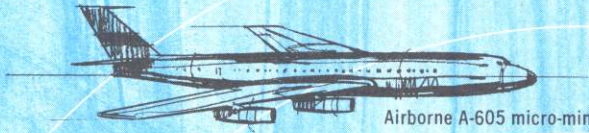
General Electric answers the need for Compatible Computers* in Military Systems— “The Compatibles/600”



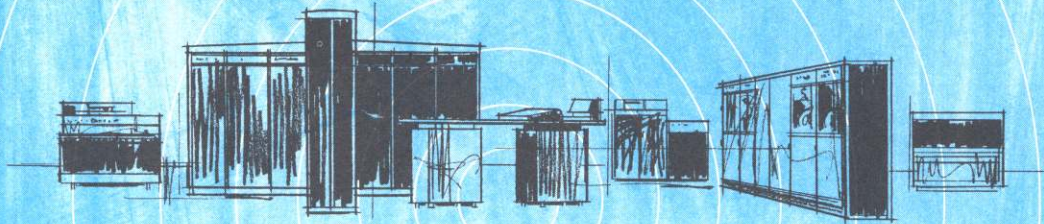
GENERAL  ELECTRIC



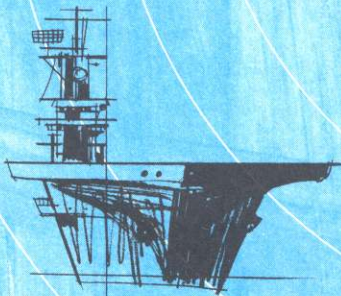
Aerospace A-605 micro-miniaturized computer



Airborne A-605 micro-miniaturized computer



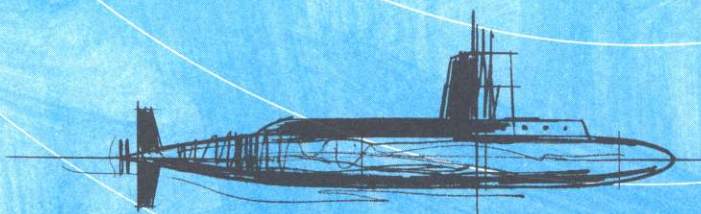
GE-625 or GE-635 commercial computer



Shipboard environment M-605 military computer



M-605 medium-performance ground-based military computer, or
M-625 high-performance ground-based military computer



A-605 Micro-miniaturized computer for limited space environment

Growth without obsolescence

The Compatibles / 600 family offers total mission compatibility for general purpose commercial, aerospace, and ground-based military computers.

What is Computer Compatibility?

Compatibility is the concept of a single computer product line which maintains program commonality, while offering a variety of physical characteristics and levels of computing power.

Benefits of Compatibility

BETTER UTILIZATION OF RESOURCES

Programming

The Compatibles/600 are programmed within a single gross instruction repertoire. Programmers once trained on the Compatibles/600 are qualified to generate programs for diverse military applications using GE-600 series computers.

Equipment

The mission computer can be abbreviated to the peripherals and memory size required by the mission. Program preparation, which requires more peripherals and memory, can be accomplished at any GE-625 or GE-635 site.

Implementation Time

Historically, a critical item associated with field computer implementation has been program checkout after equipment delivery. Now, prior to delivery of field computers, mission programs can be checked out on compatible GE-625 or GE-635 computers.

MISSION FLEXIBILITY

Mission definition

Flexibility is provided when defining military systems. In the definition phase of a particular mission, the following parameters may be varied:

- memory size
- number of input/output channels
- data transfer techniques and formats
- multi-computer features when desired
- commercial, military, or aerospace packaging
- level of computational power

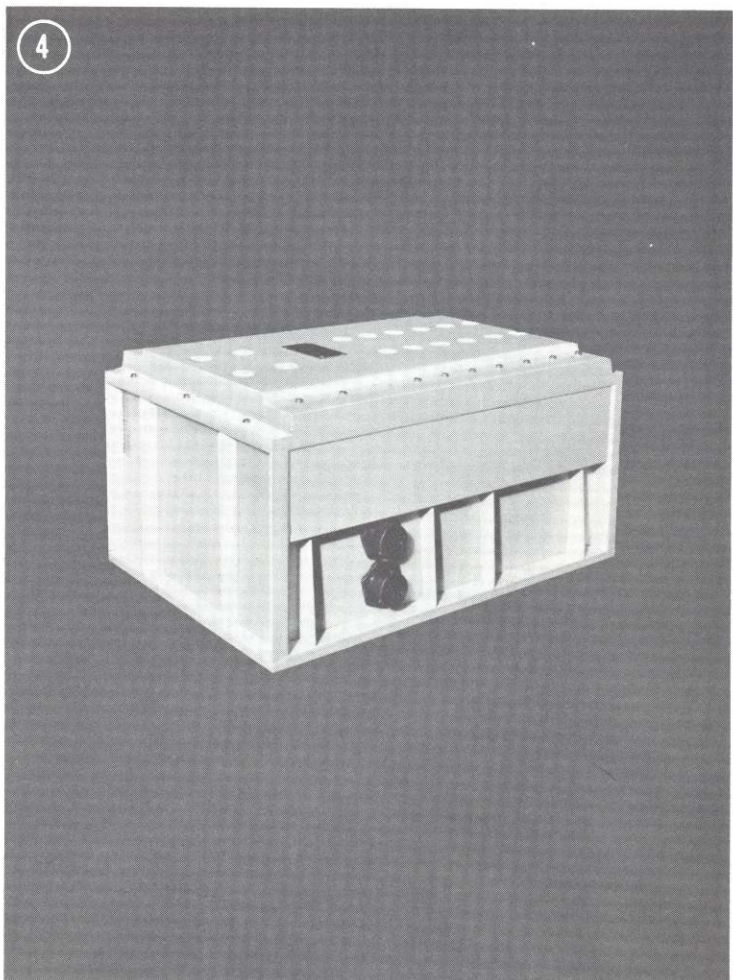
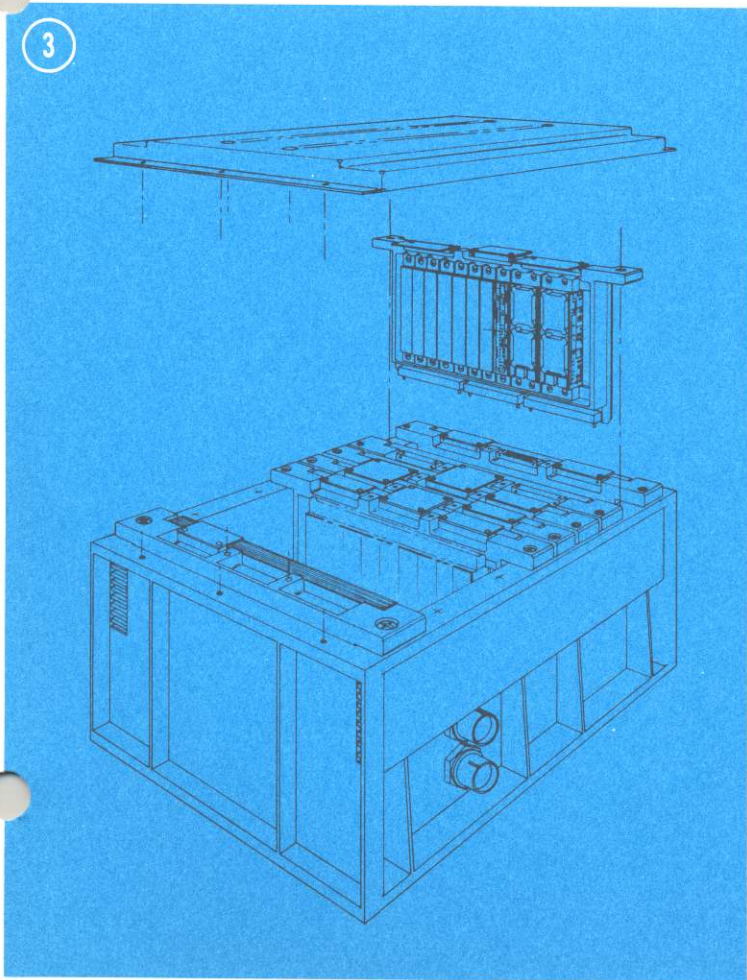
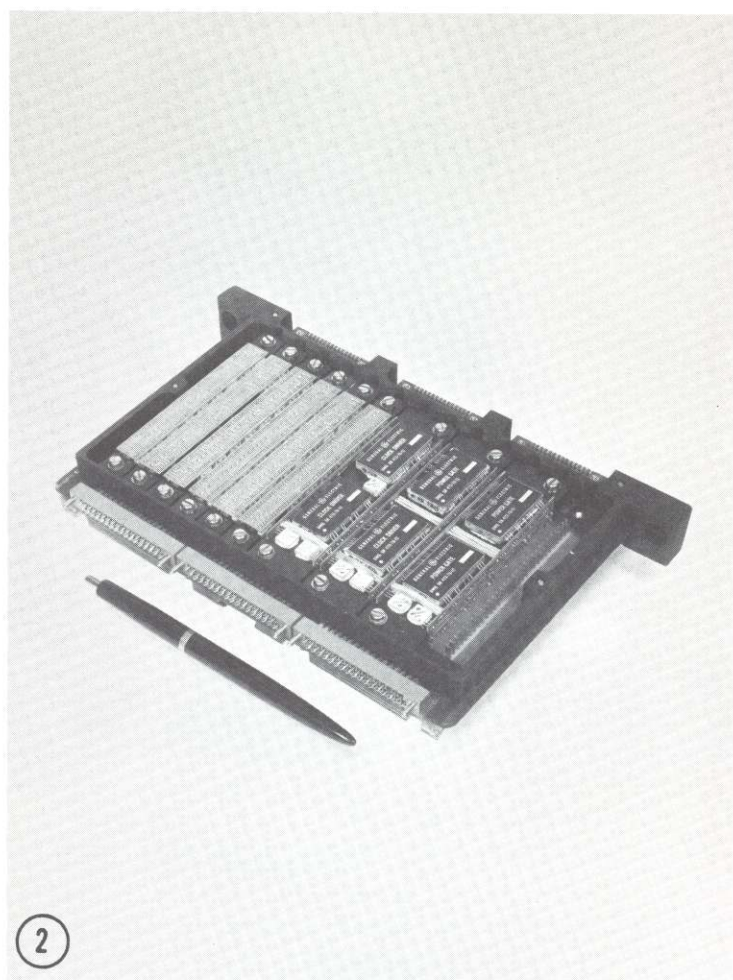
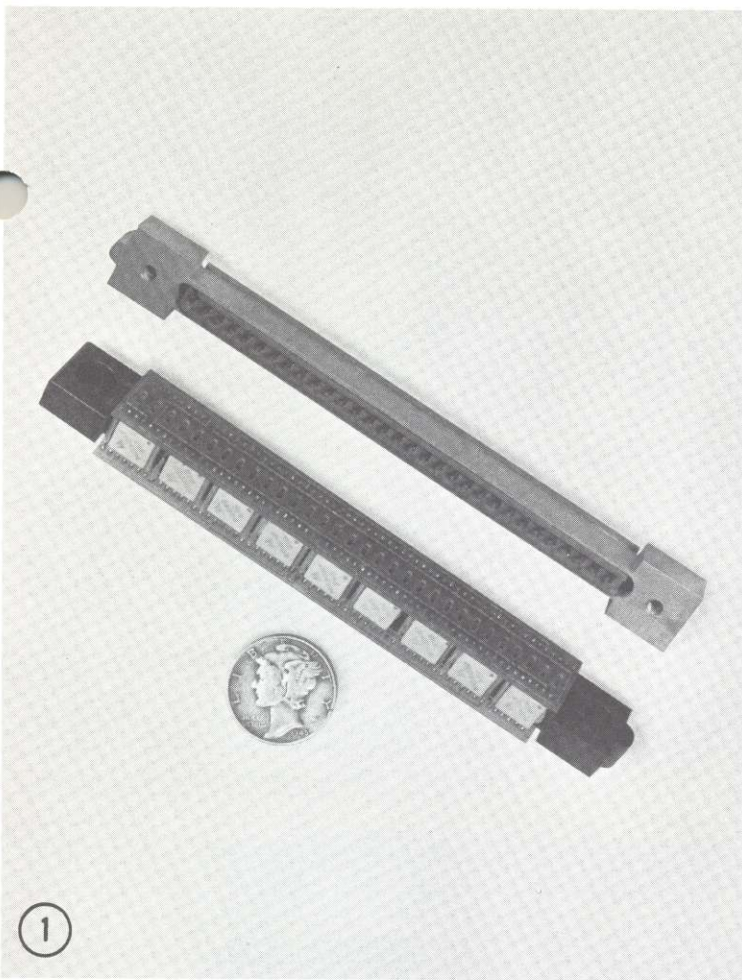
Greater real-time mission control

GE-600 series computer, in all the required environments of a mission can evaluate and control more real-time variables than systems currently in use. Decision making by command personnel may now be based on computer evaluation of a *greater number* of influencing factors.

Mission evolution

After a system is operational in the field, the modularity and growth capabilities of the Compatibles/600 minimize the task of implementing increased scope requirements.

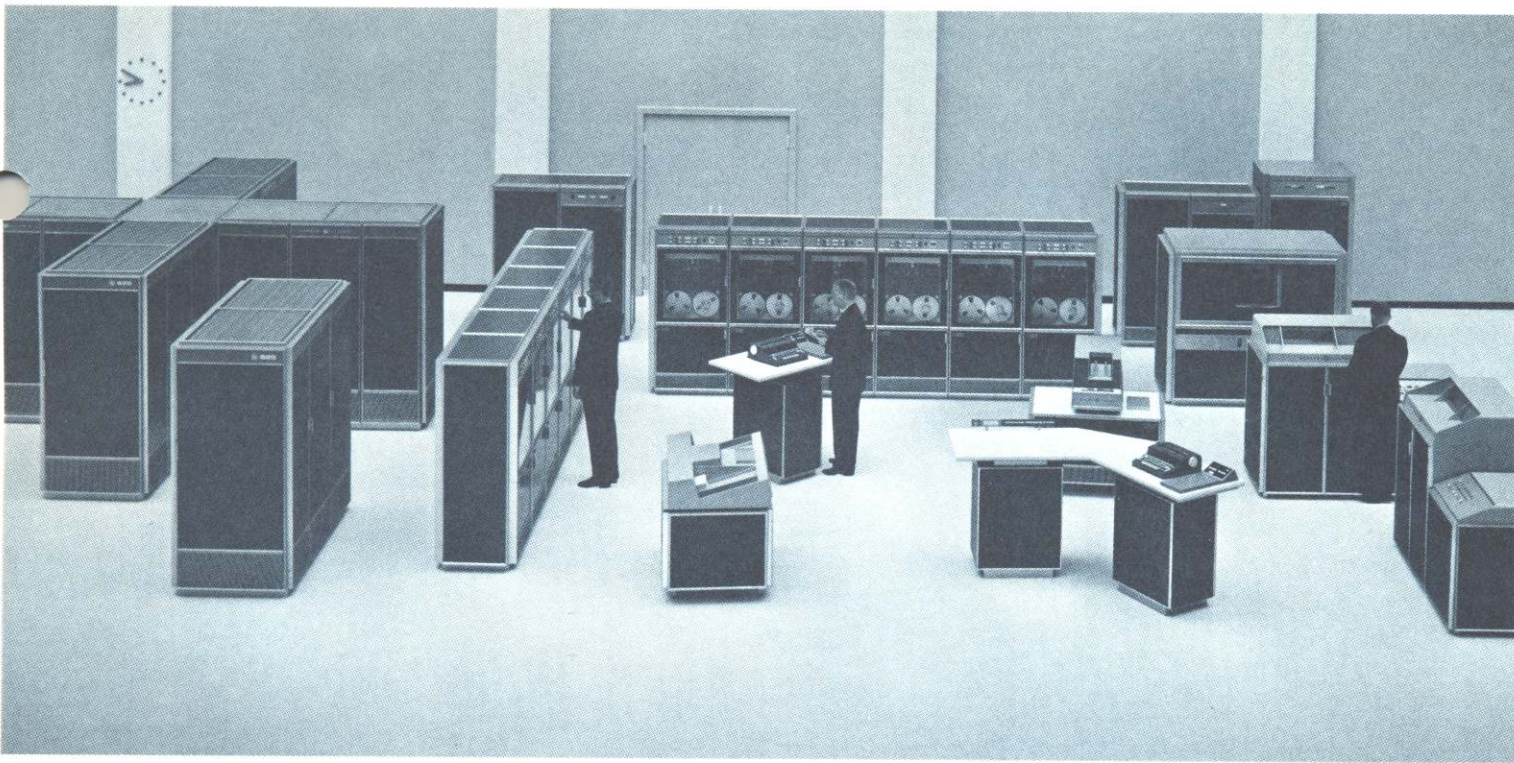
- ① Integrated computer circuits as a plug-in module.
- ② Sub-assembly unit with logic modules and memory circuits.
- ③ Sub-assemblies are easily removed for maintenance.
- ④ An assembled computer for installation where space is at a premium.



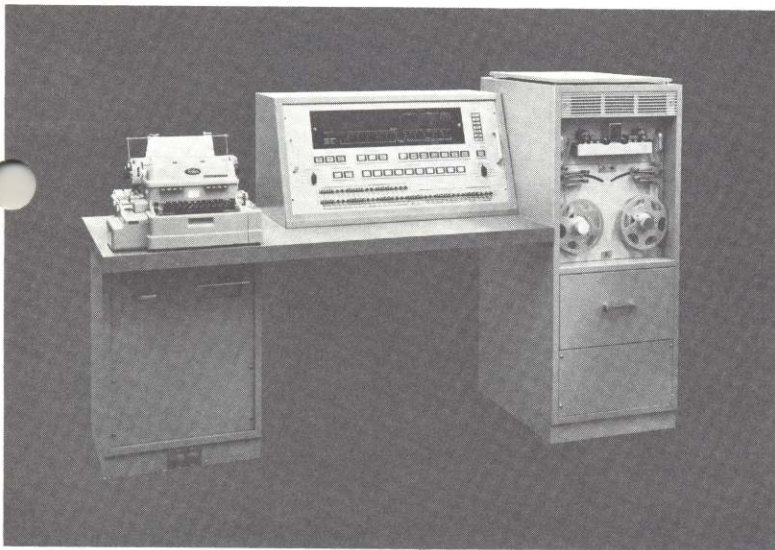
Compatibility Features of the GE-600 Series

INITIAL MODELS	GE-635	GE-625	M-625	M-605	A-605
Multi-programming Features					
Memory file protection	✓	✓	✓	—	—
Hardware program relocation	✓	✓	✓	—	—
Multilevel program interrupt	✓	✓	✓	✓	✓
Dual mode processor	✓	✓	✓	—	—
Interval timer with interrupt	✓	✓	✓	✓	✓
Multi-computer Features					
Multi-processor	✓	✓	✓	✓	✓
Multi-memory	✓	✓	✓	✓	✓
Multi-I/O controller	✓	✓	✓	✓	✓
Control processor designation	✓	✓	✓	✓	✓
Logical reassignment of memory modules	✓	✓	✓	✓	✓
Memory Features					
Double word access	✓	✓	✓	—	—
Memory cycle time					
1 μ sec	✓	—	—	—	—
2 μ sec	—	✓	✓	✓	—
3 μ sec	—	—	—	—	✓
Memory parity	✓	✓	✓	✓	✓
Processor Features					
Floating point hardware	✓	✓	✓	—	—
Fixed point hardware	✓	✓	✓	✓	✓
Logical and control instructions	✓	✓	✓	✓	✓
Extensive address modification techniques	✓	✓	✓	✓	✓
Double precision computation	✓	✓	✓	—	—
Physical Characteristics					
Microminiature aerospace	—	—	—	—	✓
Mil-spec ground based	—	—	✓	✓	—
Commercial	✓	✓	—	—	—
Standard Software					
FORTRAN IV and COBOL 61 for direct execution	✓	✓	✓*	—	—
Macro Assembler — accepts compiler output	✓	✓	✓	✓	(✓)
Master Control Program					
General Comprehensive Operating System (GECOS) for processing	✓	✓	—	—	—
Custom for real-time applications	✓	✓	✓	✓	✓

*with the addition of commercial peripherals

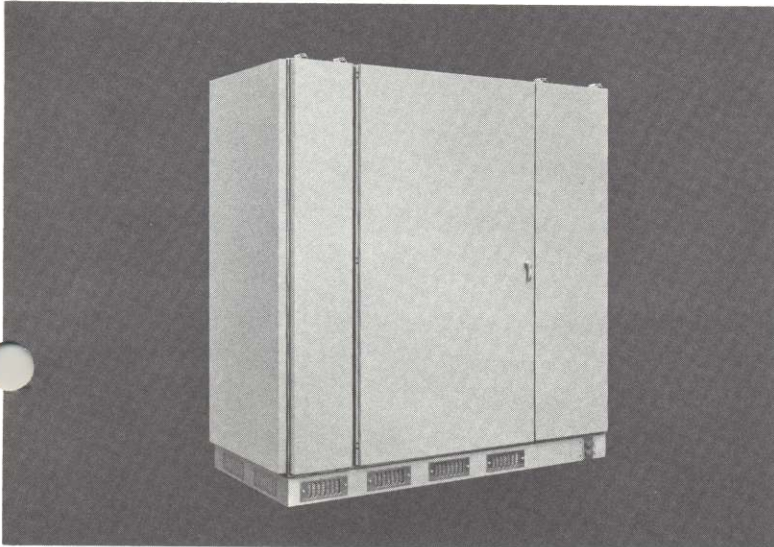


ABOVE: GE-625 or GE-635 commercial computer for assembly, compilation, and checkout of A-605, M-605, or M-625 programs.



ABOVE: Console configurations are adaptable to the mission requirements.

BELOW: Processor unit — typical Mil-spec cabinetry of M-605 and M-625.



Standard Software

The following types of manufacturer-supplied software support the preparation and execution of mission programs for GE-600 series computers.

1. Macro Assembler — accepts both compiler output and assembly level coding, and generates machine language mission programs.
2. Complete compatible software systems — provided with the M-625, GE-625 and GE-635 computers can be used to prepare mission programs for ultimate execution on the M-605 or A-605. These include FORTRAN, COBOL, math subroutines, and sort/merge generators.
3. Master Control Program — used by the standard commercial GE-600 series. This program provides a basis for modification to specific military applications.

Optional General Electric Contributions

In addition to the Compatibles/600 computer subsystem, General Electric is prepared to provide other equipment and services, such as:

- system responsibility
- mission programming
- related mission equipments
- standard computer peripherals

For more information contact

Federal Marketing Center
7800 Wisconsin Avenue
Bethesda, Maryland

or

Defense Programs Operation
777 14th Street N. W.
Washington, D. C.

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GENERAL  **ELECTRIC**

In the construction of the equipment described, General Electric Company reserves the right to modify the design for reasons of improved performance and operational flexibility.
