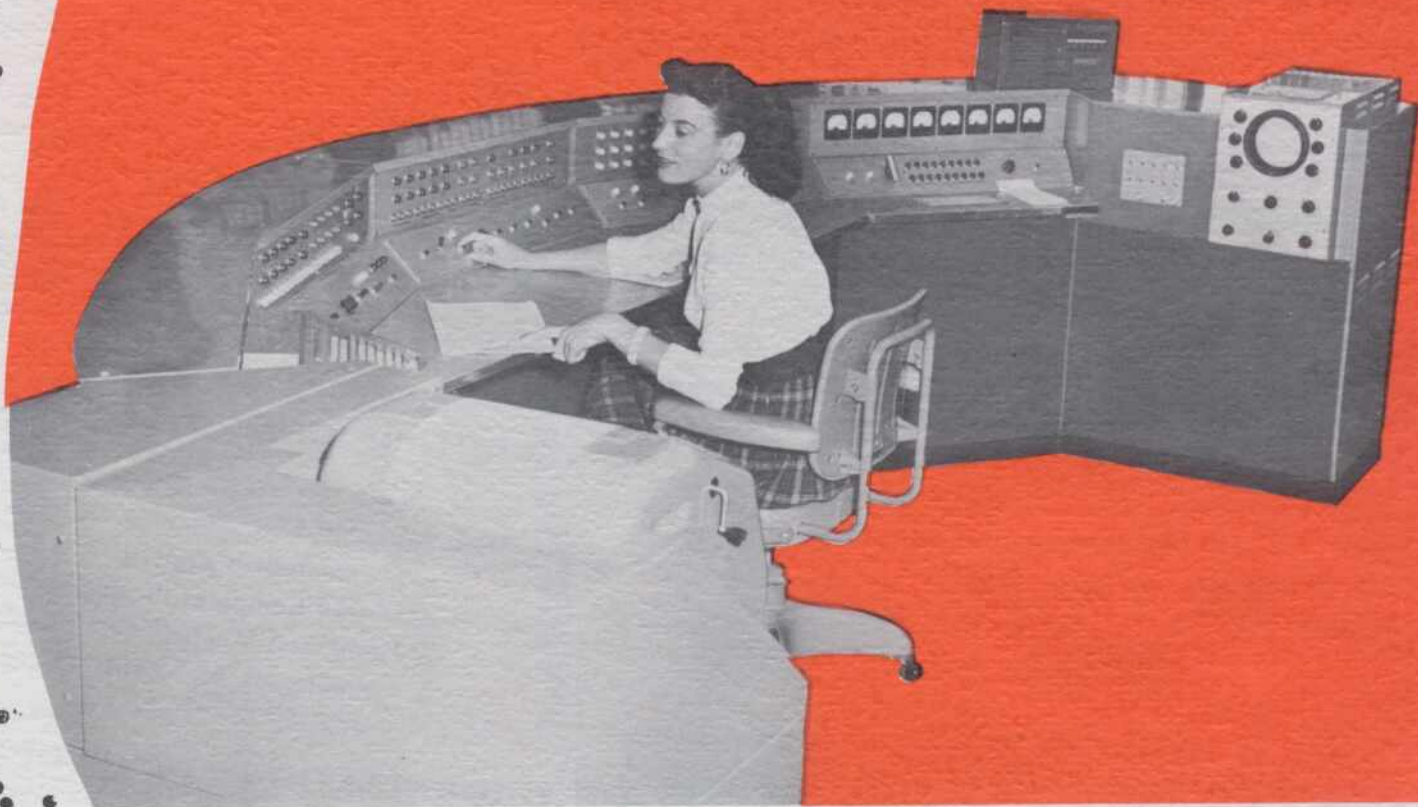# MATHEMATICAL SERVICES

Official Photograph U. S. Navy

- **SCIENTIFIC COMPUTING**

- **DATA REDUCTION**

- **CONSULTING**

COMPUTER CONTROL CO., INC.

2251 BARRY AVENUE · LOS ANGELES 64 · CALIFORNIA

WESTERN DIVISION

ABOUT 3C ...

COMPUTER CONTROL COMPANY, Inc. was organized in 1952 by a group of engineers and mathematicians for the development and manufacture of electronic and electro-mechanical equipment for automatic control and high-speed computation. In 1953 this group was engaged to staff Raydac, the Navy's electronic computer, and has operated, maintained and programmed the machine since that time.

COMPUTING SER[V

EXPERIENCE ...

Typical of the problems which 3C mathematicians have solved are the following:

Tables of Special Mathematical Functions

Simple, Partial and Multiple Correlation Coefficients

Simultaneous Differential Equations

Fourier Analysis

Aerodynamic Performance Analysis

Matrix Operations

Aircraft and Missile Simulation

Analysis of Variance

Autocorrelation Coefficients

Missile Telemetering

Coordinate Transformation

Trajectory Calculations

Theodolite Data Reduction

Statistical Computations

SCIENTIFIC COMPUTING — DATA PROC[

Experienced 3C mathematicians are prepared to from the initial formulation to the final presentation

- Mathematical Analysis
- Digital Computer Programming
- Hand and Machine Computation
- Compilation of results: Charts, Graphs, In Reports . . .

ORGANIZATION — DEVELOPMENT FO[

COMPUTER CONTROL specialists are available phase in the development of your installation.

- Recruiting
- Training
- Staffing
- Programming Library Preparation
  Subroutines
  Generalized Mathematical Routines
  Manuals

HOW WE OPERATE

▶ Discussion of project — at our offices or yours.

▶ Preparation of proposal — describing condu[

▶ Contract is signed — work begins, resulting in[

With laboratory, manufacturing, and office facilities in Wellesley, Massachusetts, and Los Angeles, California, COMPUTER CONTROL is presently marketing an extensive line of digital computing equipment, as well as constructing special purpose digital data handling systems for the government and industry.

Literature describing our products and engineering services will be mailed upon request.
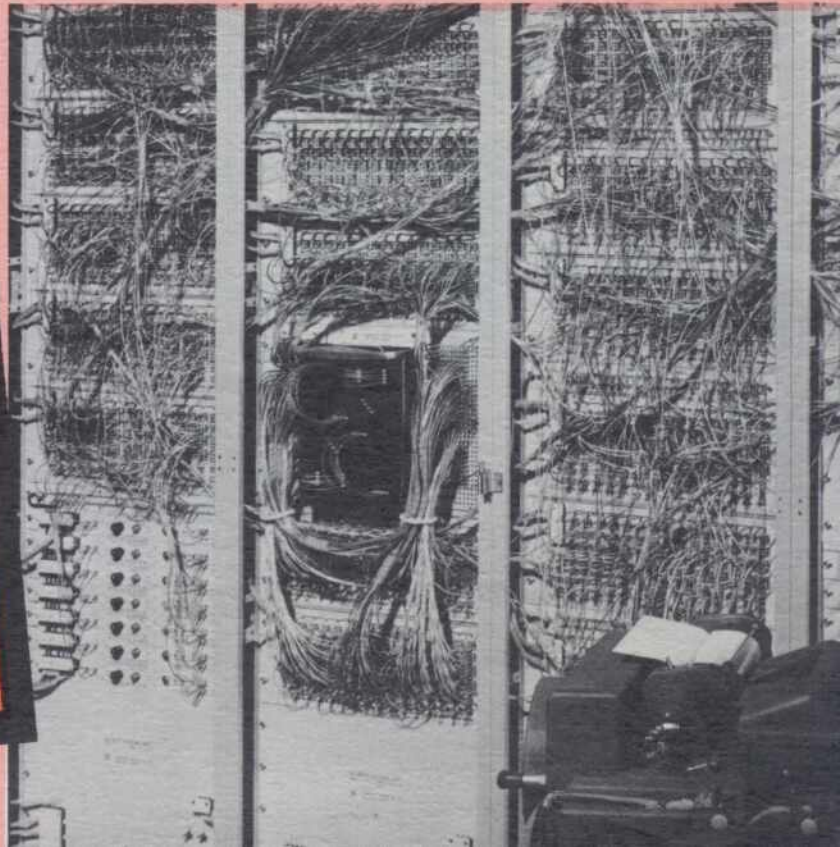

RAYDAC

The Raydac computer is available to any organization that has a government contract requiring the services of a general-purpose high-speed electronic computer.

The Raydac is completely self-checked and performs its arithmetic operations at an average speed of 1600 operations per second. It has an internal memory of 2048 words capacity and an external memory of 400,000 words capacity.

Associated with the Raydac are a 240 card per minute IBM reader, an 18,000 character per minute IBM printer, an IBM card punch and a Tally Register plotting device.
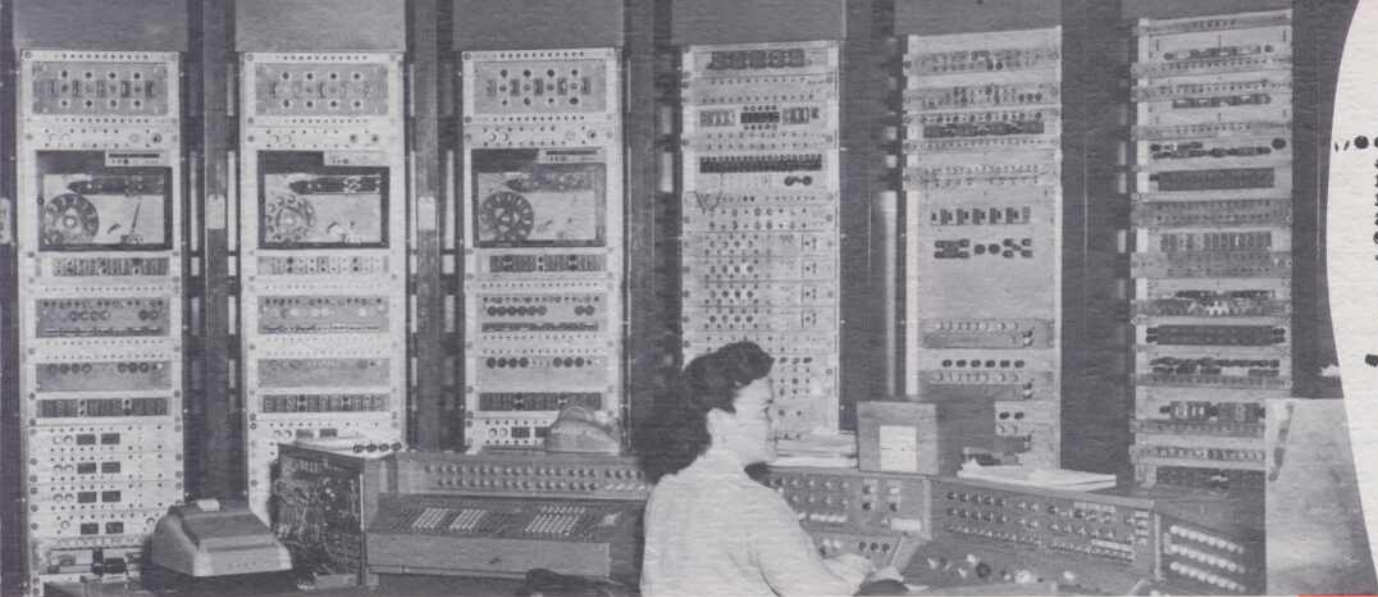
VICES

CESSING

handle your problem
of results.

erpretation Lists, Tables,

R YOUR INSTALLATION

for consultation on any

ct of work, time required and costs.

periodic consultation and written reports.

COMPUTER CONTROL employees work in comfortable, modern offices with ample work space, conference rooms, machines for hand computation and mathematical reference materials. The nearby engineering laboratory promotes close contact with the engineering staff, leading to increased technical knowledge of computers and their most efficient usage.

The following mathematicians are representative of 3C Computing Services personnel:

FRANK STOCKMAL, B.A., University of Rochester, N. Y. Graduate studies.
EXPERIENCE: SEAC Computer, National Bureau of Standards.
SPECIALIZATION: Regression analysis; automatic programming; combinatorial analysis.

LLOYD RITLAND, M.S., Iowa University; Graduate studies.
EXPERIENCE: Instructor of Mathematics and Physics.
SPECIALIZATION: Regression analysis; data reduction; matrix inversion; statistical analysis.

LOUIS WESLEY, M.A., University of Minnesota; Graduate studies.
EXPERIENCE: IBM 605, 702, CPC Computers, North American Aviation.
SPECIALIZATION: New mathematical applications in aircraft design, lofting, and tooling; mathematical applications in missile research; engineering supervision of Master Dimensions Division of aircraft manufacturer.

DOROTHY ARNOLD, B.S., University of Arizona; Graduate studies.
EXPERIENCE: SWAC Computer; IBM 650, 701, 704 Computers, Douglas Aircraft Company.
SPECIALIZATION: Subroutine library; automatic programming; table building; wing load analysis; matrix operations; data processing.

JOSEPH MOUNT, B.A., UCLA; Graduate studies.
EXPERIENCE: Programming IBM, 701, 704; design of analog equipment RAND Corporation; Douglas Aircraft Company; Production Service Company; Northrup Aircraft Company.
SPECIALIZATION: Automatic programming; logical design; automation; theory of games; linear programming; numerical analysis.

ELZA KAMPE, M.A., University of Michigan; Graduate studies.
EXPERIENCE: UDEC Computer, Wayne University.
SPECIALIZATION: Differential equations; mathematical analysis; data reduction.

JAMES DYER, M.A., UCLA, Graduate studies.
EXPERIENCE: CPC, ERA 1103 Computers, Convair; 1103A, Lockheed Missile Systems Division.
SPECIALIZATION: Missile trajectories; matrix algebra; numerical analysis.

MALCOLM MCMILLAN, B.S., UCLA; Graduate studies.
SPECIALIZATION: Actuarial and statistical analysis; applied mathematics; mathematical analysis of special tooling, lofting and production problems.

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