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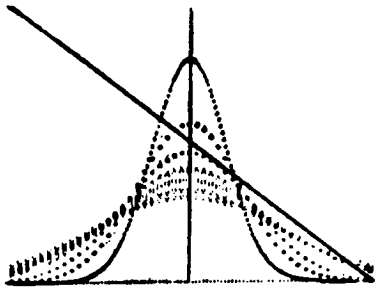
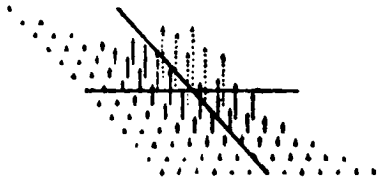
Brief 67-10654

NASA TECH BRIEF

X–Y Plotter Adapter Developed for SDS-930 Computer



GRAPHICAL DISPLAY TEST PROGRAM OUTPUT



THREE DIMENSIONAL DISPLAY BIVARIATE GAUSSIAN

A Graphical Display Adapter and the required supporting program package were developed to provide a real-time display for digital computerized experiments. This display uses a memory oscilloscope which records a single trace until erased. Tables of data can be drawn quickly to form three-dimensional plots. These scope plots can be very useful to an experimenter using the computer for simulation. Experiments gathering statistics can display histograms, mean vectors, and matrices of data.

The software program allows a programmer to call plotter functions as Fortran subroutines. Separate versions allow the use of either Fortran II or Real Time Fortran II on the SDS-930 computer.

The Graphical Display Adapter is a small hardware unit which interfaces with the J-Box feature of the SDS-930 computer to either an X–Y plotter or a memory oscilloscope.

Notes:

1. This development is presently being used to plot probability distribution curves in radio frequency-modulation studies. It is also intended for general use as a laboratory test apparatus for real-time displays.
2. The advantages of this system include the real-time plotting of computed data and elimination of compatibility considerations in handling magnetic tape and peripheral display devices. The system also includes a logic and control panel for interfacing between the SDS-930 and the X–Y plotter or storage tube display and offers a computer subroutine program for timing and control of plotter functions.
3. Inquiries concerning this invention may be directed to:

   Technology Utilization Officer
   NASA Pasadena Office
   4800 Oak Grove Drive
   Pasadena, California 91103
   Reference: B67-10654

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

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Category 06