Award for the Best Presentation
of a Technical Paper

Dr. Harold K. Skramstad was born in Tacoma, Washington, in 1908. He received a B.S. degree from the College of Puget Sound and a Ph. D. in physics from the University of Washington. He has been with the National Bureau of Standards since 1935 and is presently Assistant Chief for Systems, Data Processing Systems Division.

He worked in the field of aerodynamics until World War II, when he turned his efforts to guided missiles. He was a pioneer in this field, playing a key role in the development of the "BAT" missile. He was responsible for the development of one of the first flight simulator facilities.

He is an Associate Fellow of the Institute of Aeronautical Science and a Senior Member of the Institute of Radio Engineers. He also served as a member of the Air Force "Advisory Board on Simulation," and he was first chairman of the Eastern Simulation Council.

In recognition of the fact that technical programs are sometimes marred by careless or obtuse presentation of papers, the Eastern Joint Computer Conference Committee decided to emphasize the importance of a good oral presentation by making an award of $300 for the best presentation at the Conference of a paper describing significant work in the computer field.

Awarded to

Dr. Harold K. Skramstad
National Bureau of Standards
Washington, D.C.

for his presentation of a paper entitled:

"A Combined Analog-Digital Differential Analyzer"

An analog-digital differential analyzer has been designed which combines the analog advantages of high speed and continuous representation of variables with the digital capability of high precision and dynamic range. It is based on representing dependent variables by two quantities, a digital number representing the more significant part and an electrical voltage representing the less significant part. As in the electronic analog computer, time is the independent variable.

The design of components required to build a computer of this combined type, such as integrators and multipliers, are given, and examples of how the solution of a few elementary differential equations would be carried out are presented.