MODELING AND VALIDATION IN THE FEDERAL GOVERNMENT

Dr. Saul I. Gass University of Maryland

Panelists: Wallace M. Cohen, U.S. GAO

Philip J. Kiviat, Federal Computer Performance Evaluation and Simulation Center

Paul Roth, Institute for Computer Science and Technology, NBS

General objectives of the panel will be to review the special needs of model validation in the Federal Government, discuss present deficiencies in obtaining valid models, how the Government agencies represented on the panel plan to correct such deficiencies, and recommendations for future actions.

Cohen: "I believe the policy questions facing our nation are getting more complex and interrelated. The time horizons and a number of solutions to them seem to be decreasing. This trend will require the employment of many sophisticated techniques such as modeling to assess policy alternatives. The use of models will grow and the requirement for vali-

dation will become of paramount concern to policy makers. I cannot think of any topic that is more important to Federal model builders and users than the validation of models. My presentation will discuss past GAO efforts dealing with model validation and assessment. I also expect to discuss present and future GAO thrusts directed towards validating models applied to policy analysis."

Kiviat: "My discussion will cover what I consider the appropriate use of models at various governmental levels, and the need for the validation of models at each of these levels. I will also discuss what I feel are inherent contradictions in the modeling-validation process, and present my views for resolving them."

Roth: "I will review the special problems of developing and managing Federally funded computer models; and address possible resolutions and the outlook for developing a related body of standards and guidelines."

THE USE OF SIMULATION IN PRIVATE INDUSTRY

Dr. Geoffrey Gordon IBM Corporation