Research Hydrologist 11

GS-1315-11

NOTE: THE SENTENCE IN PART I DESCRIBING THE PURPOSE OF THE POSITION AND PARTS II AND III IN THEIR ENTIRETY ARE PERMANENT PARTS OF THE LIBRARY AND MAY NOT BE CHANGED OR EDITED IN ANY WAY.

I. INTRODUCTION

This position is located in

Incumbent is assigned one or more phases of larger projects focused on providing: (1) improved software based on hydrologic science and cutting-edge computer technology to assist in the development of operational hydrologic forecasts, (2) training in the software application, and (3) software support.

II. MAJOR DUTIES AND RESPONSIBILITIES

Incumbent investigates long range and short term problems, recommends solutions, and writes scientific papers for publication.

Performs research and development of hydrologic models, participates on projects to investigate, develop, and evaluate new hydrologic models and improve existing models, may also be called upon to calibrate models and enhance model calibration techniques.

Incumbent performs applied research, and develops operational techniques incorporating the results of research into operational hydrologic procedures. Assists in the implementation of research in the line operations of the agency. For example, performs research and supports operational implementation of the Extended Streamflow Prediction (ESP) system.

Provides research and development support for hydrology related components of major agency projects, notably NEXRAD and AWIPS.

Prepares technical reports presenting results, conclusions, and recommendations that are authoritative on hydrology within the agency.

III. FACTOR LEVELS

Factor 1 - Research Situation/assignment Degree A, 2 pts.

The incumbent is assigned applied research, development, or implementation tasks related to operational forecasts of runoff and/or stream flow, that have clear and specified objectives, but which may require both standard and non-standard methods and analysis techniques. The incumbent usually participates substantively in all phases of the research investigation, including problem definition, planning, execution, analysis, interpretation, and reporting of findings. Projects are expected to result in a publishable addition to scientific knowledge.

Factor 2 - Supervision Received Degree A, 2 pts.

General instruction and objectives regarding the design, execution and evaluation of the research is provided by the supervisor. The nature of expected results are also described by the supervisor. However, the incumbent is responsible, with minimum supervision, for assembling background information, applying standard techniques, and recommending new methodology. May initiate new computer techniques and change algorithms for the
purpose of evaluating alternatives. Completed work is reviewed from the standpoint of adequacy and completeness but is frequently accepted without modification.

Factor 3 - Guidelines and Originality Degree A, 2 pts.

At this level the incumbent uses existing theory and methods that are generally applicable to most problems. The originality required is primarily applied to the development of a complete and adequate research design for a particular project. Only limited innovation, or modification of procedures and techniques is required.

Incumbent may apply complex but established experimental techniques.

Factor 4 - Qualifications and Scientific Contributions Degree A, 4 pts.

Performs independent hydrological research as member of a research team. Contributes as co-author, in a secondary role, to works that are published in major scientific papers and which are of major importance to the meteorological field; or as primary author of a paper of minor importance to a limited area or of limited scope in hydrological science.

TOTAL POINTS: 2+2+2+4 = 10

This position is exempt from coverage under the Fair Labor Standards Act.

**IV. UNIQUE POSITION REQUIREMENTS**

(Last Updated: November 4, 1994)