

SOUTHWEST CENTER FOR ADVANCED STUDIES

POST OFFICE BOX 30365
DALLAS, TEXAS 75230

(214) ADAMS 1-1471

(Effective September 1, The University of Texas at Dallas)

Release on Receipt July 7, 1969 Al Mitchell, Extension 215

TWO VISITING APPOINTMENTS, ONE POST-DOCTORAL ANNOUNCED BY SCAS

Two visiting professors have received summer appointments at the Southwest Center for Advanced Studies, and one research associate has been appointed to the post-doctoral staff.

Prof. Mary F. Gourley, Physics department, Austin College (Sherman) has been appointed as a research scientist in the SCAS' computer center.

Prof. Amir Muhammed, Biology division, Oak Ridge National Laboratories, Tenn., has been appointed to the SCAS' Biology division faculty.

Dr. Stephen L. Goldman has joined the post-doctoral staff in the SCAS' Biology division, coming from the Genetics department, University of Missouri, Columbia, Mo.

-30-

DR. ROYSTON C. CLOWES CONTINUES AS HEAD OF SCAS' BIOLOGY DIVISION

Dr. Royston C. Clowes, Professor and Head of the Biology division, Southwest Center for Advanced Studies, has been reappointed to that position after completing a one-year term assignment.

The SCAS will become The University of Texas at Dallas, effective Sept. 1, 1969.

-30-

NASA INCREASES GRANT TO DR. FRANCIS S. JOHNSON FOR ATMOSPHERIC MIXING STUDY

Acting President Francis S. Johnson of the Southwest Center for Advanced Studies will continue as principal investigator for "Investigations into the Mechanism and Rates of Atmospheric Mixing in the Lower Thermosphere" under a NASA grant extension.

The National Aeronautics and Space Administration, Office of University Affairs, announced the supplemental funding of \$194,350. The extension brings the total grant award to \$705,071 for the period March 1, 1965 to March 31, 1972.

Doctor Johnson, who will also serve as acting president of The University of Texas at Dallas after Sept. 1, when the SCAS joins the university system, will seek a scientific basis for prediction of such effects as the spreading of nuclear debris through the upper atmosphere, above 50 miles' altitude; short and long-term effects of rocket contamination in the upper atmosphere, and the disturbance of upper atmospheric composition by large-scale vertical currents.

Gases in the thermosphere, at altitudes of about 50 to 90 miles, appear to move toward the Earth's winter pole, according to earlier investigations reported by Doctor Johnson. An upward flow in the summer hemisphere and a downward flow in the winter hemisphere have a part in the movement.

Molecular hydrogen may play an important role in thermosphere chemistry, he says, modifying earlier general beliefs that atomic hydrogen flows upward through the lower thermosphere, eventually reaching the outer limits of the atmosphere where it escapes into space. Source of the atomic hydrogen is release by the Sun's action (photodissociation) on water vapor.

One interesting ramification of a large molecular hydrogen concentration would be a net downward flow of atomic hydrogen in the lower thermosphere, says Doctor Johnson, so that all of the escape flux would be carried by the upward diffusing molecular species.