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# THE INCORPORATION OF AVHRR DATA IN OPERATIONAL AGROCLIMATIC ASSESSMENT PROGRAMS IN THAILAND AND MALAYSIA

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## ABSTRACT

The NOAA/NESDIS Assessment and Information Services Center (AISC) has been involved in the assessment of climatic impacts on food security in developing countries since 1979. Elements of this process have included the issuance of early-warning agroclimatic assessments, the transfer of agroclimatic modeling and impact assessment technology to more than seventy countries, and the development of operational agroclimatic assessment bulletins by many of the countries involved.

Currently, NOAA polar orbiting satellite data are being incorporated as an additional analytic tool in the assessment process. Spatial trends in vegetation conditions are evaluated on the basis of seven-day composite images produced from the NOAA satellite data for approximately four hundred agroclimatic regions worldwide. Temporal trends, based upon the normalized vegetation index derived from the composite satellite data, are evaluated in the context of an available three year history of "time series" indices.

The goal of integrating satellite data into the operational agroclimatic assessment process of developing countries is being approached through AISC's proven implementation methodology. This process model includes technical training as an initial component. Also included are in-country technical assistance, international cooperative data exchange, the implementation of inexpensive microcomputer technology, in-country workshops, and follow-up evaluation seminars.

The first training course, "Processing and Evaluating NOAA Polar Orbiter Data for Operational Climatic Impact Assessment: A Pilot Study for Southeast Asia", is being offered to five scientists from Thailand and Malaysia in May-June 1985. This six-week course is designed to incorporate available

NOAA polar-orbiting satellite data into the assessment process of Thailand and Malaysia, thereby improving operational agroclimatic assessments.

Gary E. Johnson is a Remote Sensing Scientist with the Models Branch of the Climate Impact Assessment Division, Assessment and Information Services Center of NOAA, located in Columbia, Missouri. From 1982 to 1984 he was an Associate Professor of Remote Sensing at the Asian Institute of Technology in Bangkok, Thailand. He was with the EROS Data Center from 1976 to 1982 as a Principal Applications Scientist and Manager of the Applications Sciences Section. His previous experience was in state government for two years and as an academician for seven years. He holds both a Bachelors and a Masters degree from the University of North Dakota and a Ph.D. in Geography from Indiana State University.