



HURRICANE RESEARCH FOCUS IN MIAMI

by ROBERT C. MINGS

The 1969 Fall Meeting of the Florida Society of Geographers will be held Friday and Saturday, October 31 and November 1, at the Fontainebleu Hotel in Miami Beach.

Contemporary hurricane research is the program theme. This topic was chosen because of its obvious crucial importance to the Florida Peninsula. Enthusiastic offers of cooperation from eminent members of the National Hurri-

cane Research Center in Miami further convinced us of the merit of this topic.

Society members will have an opportunity to learn about the latest developments in a field of great relevance to us all — and from the men who are in the real vanguard of hurricane research. Dr. Robert H. Simpson, our Friday banquet speaker, is Director of the Weather Bureau's National Hurricane Center at Miami. He

(See Hurricane, p. 2)

PRESIDENT'S COLUMN

Let the geographer now add his belated voice to the surge of protest that currently sweeps across the nation. Seldom has the Florida geographer had such a stellar opportunity to address himself individually and collectively



SCHALEMAN

through his State Society to more crucial problems than those that confront the State of Florida today. He faces the challenge to protect, preserve, and conserve the natural and cultural heritage that is his legacy.

The famed orange groves fall to the suburban bulldozer in the wake of seemingly endless urban sprawl. The products of human

and industrial waste continue to contaminate and pollute the air and water. The ocean waters erode the legendary beaches along the state's eastern periphery. Now Florida is threatened with a challenge that strikes at her very heart; namely, the struggle to preserve The Everglades, an area rich in a variety of rare flora and fauna. Such a controversial issue merits the geographer's support. He can serve as a bulwark against those men of limited political vision who attempt to sacrifice this unique wilderness area to the proposed Jet Port in Dade County. He can also struggle to restore his cultural and historical inheritance as well. Once more it is time to reiterate a former view expressed by this State Society; namely, to restore the historic name of Cape Canaveral to the geographic area currently designated as Cape Kennedy.

The Florida Society of Geographers has a vast multi-responsibility to educate the electorate, the legislators, and the youth so that they can make prudent decisions in the future. It, therefore, becomes vital to direct ourselves to the task of improving dialogue at all levels, particularly in the secondary schools and junior colleges. Let Florida lead the way! Let protest against our adversaries be loud, but above all, let our actions and constructive effort eclipse all else. If our State Society is to be something more than a semi-annual clan of congeniality, it is time to shift gears from lethargy to involvement.

See you in Miami Beach at the Fontainebleau the last weekend in October!

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received his MS in physics from Emory University and his Ph.D. in meteorology from the University of Chicago. He served as director of the Weather Bureau's Pacific projects from 1948 to 1952, and in 1955 organized and was named first Director of the National Hurricane Research Project. Dr. Simpson has been awarded the Department of Commerce's gold medal for outstanding contributions to the science of hurricanes.

Dr. R. Cecil Gentry will speak Saturday, November 1, at 10:00 a.m. He is Director of Project Stormfury and the National Hurricane Research Laboratory. Project Stormfury, an interdepartmental project that costs an estimated \$500,000 annually, began full operation in 1962 to study means of hurricane modification by cloud seeding.

Dr. Mariano A. Estoque will address the Society on Saturday, November 1, at 11:00 a.m. He is Professor of Atmospheric Science at the University of Miami.

After lunch on Saturday, the Society will be able to visit the specialized research aircraft used by the National Hurricane Center for first-hand observation of hurricanes.

For comfortable and ultra-complete resort accommodations, the Fontainebleau Hotel has no peer. Included in the room price (\$12 each/dhl. occ.) is use of all hotel facilities (e.g., ice skating rink, bowling alley, golf courses, etc.). It is a rare opportunity for members and their families to have a truly exotic weekend in one of the world's most famous resorts and at off-season group rates. Record attendance is expected.

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GEOGRAPHERS IN STATE GOVERNMENT

by EDWARD H. CEDERHOLM

Geographer, Department of Natural Resources

The State of Florida is a very rapidly growing state with population already exceeding the previous projections. It is growing in industry, agriculture, and influx of tourists, which constantly increases the demand on water resources of the state. At present time there are only occasional seasonal and geographic shortages of water. However, planning is vital to prevent such shortages from increasing and becoming more critical.

This planning requires evaluation and projection of water availability and requirements by hydrologic areas of the state in order to identify the areas of deficiency and surplus to permit long range effective planning for storage, distribution and regulation.

Special emphasis must be given to ground water sources and storage because of the lack of reservoir sites in Florida. The exploration of means of storage in ground water aquifers will contribute to the ability of all areas to develop similar techniques.

The State of Florida has realized the importance of federal-state planning and for this reason has undertaken an active part in work on the Southeast River Basins Interagency Committee.

To help in this planning effort the Division of Interior Resources, Department of Natural Resources has added to its staff two geographers. These geographers are assigned directly to the river basin planning party. However, before describing their functions, a few comments on just what constitutes river basin planning is in order.

Section 373.131, Florida Statutes, requires the Division of Water Resources and Conservation (now the Bureau of Water Resources) to conduct a continuous study to determine the most advantageous and best methods for obtaining maximum beneficial utilization, development and conservation of the water resources of Florida and to make the legislature and the public aware of water resource needs, problems and solutions.

In compliance with the statutes and along with the guidelines of the Federal Water Resources Council, the Florida Department of Natural Resources, previously the Florida Board of Conservation, began its first river basin study in 1963. The state of Florida was divided into five river basins: Northwest, Suwannee-St.

Marys, St. Johns, Southwest, and Kissimmee-Everglades.

The Southwest Florida study was completed in 1966 and the second of five studies — the St. Johns River Basin — has been completed and is in review prior to printing. The Kissimmee-Everglades, Suwannee-St. Marys, and Northwest Florida Basins have been begun and it is hoped that these will be completed by the end of FY 73.

Major steps in river basin planning include the following: Development of the work plan and technical outline, analysis of data, projection of requirements for the three-time frames 1980, 2000, 2020, and finally the preparation of the report.

Upon the completion of the five area studies the overall water planning for the State of Florida will be prepared using the five study reports which are really water budgets for the areas as a basis for the state plan. The state overall plan should be ready within two years following completion of the final area study.

One geographer has been assigned the Kissimmee-Everglades Basin, the other the Northwest Florida and Suwannee-St. Marys Basins. Primary responsibility is to basin planning; however, since the Bureau of Water Resources is a small unit, there are no "specialists."

With respect to the planning reports, each geographer's area of interest consists of the basin's socio-economic resources, both present and future, with somewhat detailed discussion on agriculture, forestry, manufacturing, transportation, etc.; land resources, which include physiography and use; recreation, in conjunction with the Department of Recreation and Parks; and the programs of both Federal and state agencies that may affect the basin. In one basin, the geographer is additionally responsible for wastewater, municipal, and industrial water use.

Some of the non-planning responsibilities mentioned above include coordination by the Corps of Engineers on Flood Plain Information Reports, writing the "Water and Weather" reports for the Department of Natural Resources *Conservation News*, and keeping informed on the progress of the topographic mapping program in the state being carried out by the U. S. Geological Survey in a matching fund program with the state.

With the increasingly important role that water will be playing in the future, the importance of the positions held by each geographer can be seen. And, upon completion of these reports, a sense of accomplishment is felt, for what they have done will have benefited the state and all its people.

NEWS FROM FLORIDA GEOGRAPHERS

UNIVERSITY OF MIAMI

The Department of Geography of the University of Miami has had a productive year. The faculty now numbers nine, with four appointments during 1969, including the new chairman. The following geographers joined the department: Donald L. Capone, who has just returned from a year's field work in Kenya on a project relating to wildlife ecology and political geography; David B. Longbrake, who is completing his doctoral dissertation at the University of Iowa, and whose interests lie in quantitative methods and urban geography, and William T. McGuire, who is also focusing on urban problems in his dissertation to be submitted to the University of Florida. Capone will handle courses in conservation and a new offering on East Africa; Longbrake will teach introductory and advanced courses on quantitative methods of analysis and urban geography; and McGuire is currently strengthening the department's introductory courses. Other faculty news: Dr. Paul Sanford Salter has been named Assistant Dean of the College of Arts and Sciences, an appointment which permits him to continue his teaching in the department. Dr. Luella Damhaugh, who is secretary to the University of Miami chapter of Sigma Xi, has been awarded a half year's sabbatical leave. Dr. Robert Mings and Professor Richard Kreske participated, with Dr. Salter and Dr. de Blij, in a seminar for teachers in August. This seminar was the product of a successful grant application made by the department earlier in the year. It was intended as the beginning of closer contact and cooperation between the department and the teachers of geography in Dade and Broward Counties.

The department is currently involved in a complete revision of the curriculum at the undergraduate level and the establishment of a graduate program as well. The modernization of the department's programs is facilitated by the recent faculty appointments as well as the department's active participation in the new Urban Studies Center and the Center for Advanced International Studies. The faculty has decided that the twin systematic-regional foci of the department should lie in urban geography and tropical areas. No less than five of the faculty have published in some aspect of urban geography, and four have worked in tropical areas. Dr. de Blij was recently appointed Chairman of the new African Studies Committee in

the Center for Advanced International Studies.

The department has moved into new quarters. Ten new offices were made available during 1969, clustered at the south end of Merrick Hall, near the Map Library, the Physical Geography Laboratory, and the Cartography Laboratory. Mrs. A. K. Brennan has been appointed permanent secretary; a second secretarial position has just been made available.

In terms of research and publication, this has been a fairly productive year. Department faculty combined to publish one book, two chapters, nine articles, and several reviews.

FLORIDA ATLANTIC UNIVERSITY

Growth in majors, curriculum, and research publications are evident in FAU's geography department this Fall. Over 30 students are now majoring in geography, and several graduate students in special status are related to the program.

Dr. L. Alan Eyre completed his dissertation on the "Geographic Aspects of Population Dynamics in Jamaica" for the University of Maryland and has been appointed Assistant Professor at Florida Atlantic University. Mr. Geoffrey Grant, advanced graduate student from Kent State University who is particularly interested in urban studies and remote sensing has joined the staff as Instructor and Research Assistant.

Among the publications recently released was Dr. Alan Craig's *Annals* article on "The Grouper Fishery at Cay Glory, British Honduras." Dr. Simon Baker will present a paper on "The Potential Contribution of Remote Sensing to World Food Production" on October 24th at the meeting of the American Institute of Aeronautics and Astronautics in New Mexico. The International Geographical Union will publish in its "Selected Papers" of the New Delhi meetings the presentations made by Dr. Robert Tata and Dr. James Latham at the December meeting in India. They are "A Space Potential Derived Measure of Transportation Efficiency" and "Instrumented Geographic Analysis of Multisensor Imagery."

In the Spring, the first offering of a senior level course in remote sensing was completed by several geography and some science students. A course in field methods has been introduced this Fall by Dr. Roy Lemon, Professor of Geology, and a new geology laboratory is being established. Political geography will be added to the curriculum this year. (See FAU, p. 8)

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PRESIDENT'S SUMMER ACTIVITIES

In addition to his move from Barry College, Miami, to join the faculty of the University of South Florida, St. Petersburg Campus, Harry J. Schaleman, Jr., has just completed a summer of research and travel in northern Europe. As one of twenty participants in an EPDA Institute for Advanced Study in the Geography of Europe, Harry worked through the University of Minnesota where he spent the previous summer in research and seminars preparing for the summer of 1969. Co-operating universities included the University of Umea, Sweden; Cambridge University, England; and University-College, London. In addition, visits to the Ruhr University,

Germany, and the University of Utrecht, Holland, were included.

The summer's study centered on a regional approach with emphasis on settlement patterns, historical development, and economic pursuits and problems. Urban planning in Rotterdam and the Ruhr Valley of Germany was also studied extensively as contacts and dialogue were exchanged with the respective city planners and associated agencies. Areas of concentration included Lapland and coastal Norway in Scandinavia, the Bavarian and Ruhr sectors of Germany, the Low Countries and the British areas of East Anglia, Wales, and southern England. The eight-week Institute departed New York on June 16 and returned August 28.

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(FAU, from p. 4)

The Remote Sensing Laboratory continues its NASA multisensor missions over the Boca Raton Test Site, and Florida geographers may be imaged by an RB 57 at 50,000 feet as they travel to the Miami meeting. Three technical reports have just been published by the researchers and Florida geographers may find particularly interesting the study of "Vaeant and Unutilized Land in an Urbanized Coastal Area of Southeast Florida," by L. Alan Eyre or "Interpretation of Colors by a Television Scanning and Waveform System—" by Dillard Larson, William Kuyper and James Latham. The latter study also provides insight on some of the problems associated with using colored geographic maps for TV teaching.

UNIVERSITY OF FLORIDA

In mid-September Professor Shannon McCune assumed the Chairmanship of the Department replacing Jim Anderson, who returns to teaching and research. Dr. McCune comes to us from the American Geographical Society where he served as Director for a year.

Other personnel changes in the Department include the addition of Dr. Peter W. Lewis from Hull University in England as an Interim Associate Professor for the forthcoming academic year. Dr. Lewis specializes in industrial geography. Also joining the faculty during the winter quarter will be Professor E. Cotton Mather from the University of Minnesota. Professor Mather specializes in cultural geography and is particularly interested in the geography of rural settlement. Joining the staff on an interim basis this fall will be Herbert R. A. Schaeper, who received his Ph.D. degree from the University of Florida in June.

We regret very much having lost the services of Dr. Edmund E. Hegen, who has decided to take a position at the University of Alabama where he will head up the Latin American Studies Program at that University and will also be a faculty member in the Department of Geography.

Ray Crist, David Niddrie, Clark Cross and Louie Paganini round out the faculty for the upcoming academic year. John Dunkle, Bob Marcus and Josh Dickinson are other geographers on the faculty at the University of Florida who participate in the program of the Department as well as being involved in programs budgeted elsewhere in the University.

THE UNIVERSITY OF SOUTH FLORIDA

The Department of Geography at USF continues to grow. This year three new professors joined the staff: Harry Schaelman, President of the FSG, comes to USF from Barry College; C. E. Palmer, a specialist in water resources, was at Oswego, N. Y., last year; and John Stafford, an Africanist, hails from Michigan State.

This fall also witnessed the permanent installation of a geography program on the St. Petersburg campus of USF. Prof. Schaelman is in charge of the St. Pete offerings while functioning as a regular member of the larger department. In the future, geographers from the Tampa campus will journey to St. Petersburg to assist with the anticipated growth across the Bay.

The Master's program began this year with nine students accepted for graduate work. Some 80 undergraduate majors may now be counted, making USF one of the largest departments in the U.S.

New equipment in use for the first time this year includes a photo-typewriter, a weather satellite tracking system (APT) capable of immediate facsimile reproduction of the satellite photography, standard facsimile map reception capability, radiometer, dew recorder, and a remote facility associated with the USF Botanical Gardens. Later it is hoped to telemeter information from the Botanical station to the Weather Central. The weather/climatology lab is now completely equipped—from thermometers to radar.

Members of the Department traveled widely this summer. Prof. Schaelman was in Europe, with most of his time spent in Sweden (including Lapland). Prof. Stafford did research in Montana on the Crow Indian Reservation. Prof. Fuson continued his work in Mexico and visited Indian ceremonial centers in 15 Mexican states. Earlier investigations along these lines was published in the September issue of the *Annals of the AAG*.

This summer marked the publication of Fuson's book *A Geography of Geography: origins and development of the discipline*. This is one of the Foundations of Geography Series produced by W. C. Brown Publishers, and is the second in the Series written at USF (Dr. Rothwell's *A Geography of Earth Form* appeared last year).

Plans for the coming year include developing courses and research in water resources and possibly a workshop for next summer.

FLORIDA STATE UNIVERSITY

Dr. Donald Patton, who was Chairman of the Mid-Atlantic Division on the AAG in 1968, is a new faculty member of the FSU geography department. Patton has taught at the University of Maryland, Johns Hopkins, and the Carnegie Institute in Washington, D. C., worked for Resources for the Future, and has been the managing editor for the High School Geography Project. His major interests are in the fields of Resource Use, Wild Lands and Economic Geography.

Another addition to the staff is Roland Wood, who is completing his doctorate at UCLA. His major areas of interest are Agricultural Geography and Africa. Wood has spent a year studying and teaching in Sudan.

Dr. Tom Gergel completed his doctorate at the University of Georgia, and co-authored with Dr. Jim Woodruff, an article, "On the Origin and Headwater Extension of First-Order Channels," in the February JOURNAL OF GEOGRAPHY. This summer he worked on a grant involving the "Application of Computer Mapping to Geographic Analysis."

Dr. Ed Fernald was the director of an EPDA Summer Institute in Geography involving 30 teachers from Palm Beach County. Drs. Mort Winsberg and Rashid Malik taught their regional specialties in the Institute. Drs. Burke Vanderhill and Winsberg spent several weeks doing field work out of the country during the late summer. Vanderhill in Canada, and Winsberg in Mexico.

JACKSONVILLE UNIVERSITY

Mr. James R. Botherton has joined the Jacksonville University Geography Department as of September 1.

Although he is a newcomer to Jacksonville, he is familiar with Florida and Georgia, having operated the Air Force Photographic Laboratory when it was in West Palm Beach and then when it was moved to Albany, Georgia, for a four-year period.

His special fields are Cartography, Photo Interpretation, and Urban Geography and he is strengthening our program in these areas. He is also one of the professors who will be guiding the Urban Seminar for city management.

While in the Air Force, he did graduate work at Boston University in Geography and spent last year at University of Oklahoma completing the course work for a Geography Ph.D. He has traveled extensively in the Pacific areas, Canadian Arctic and Greenland as well as Guyana and Northern Brazil.

Herh Padgett is preparing an article on the Florida economy and has an article in the September, 1969, issue of the *Annals*, entitled "Physical and Cultural Associations on the Louisiana Coast."

FLORIDA'S HARBOR TRAFFIC

Freight tonnage moving through Florida's major harbors and waterways during 1968 showed a remarkable increase over the previous year. Statistics just released by the U. S. Army Corps of Engineers show that 11 of Florida's 15 ports registered an increase of 5 million tons last year, following an upward trend that has been prevalent for a number of years. Nine river waterways also showed increased traffic during the same period.

Tampa Harbor, the state's largest and most active harbor, showed the biggest freight tonnage increase, with Jacksonville Harbor running a close second. Tampa Harbor vaulted from 25,607,506 tons during 1967 to 27,436,709 tons during 1968—an increase of 1.8 million tons. Jacksonville Harbor jumped from 10,113,772 tons in 1967 to 11,199,240 tons last year—an increase of 1,085 tons for the year.

Waterway tonnages increased on the Anclote River; Intracoastal Waterway between Fernandina Harbor and the St. Johns River; in the channel from Naples to Big Marco Pass; in the Gulf Intracoastal Waterway between Fort Myers and Tarpon Springs; in the Miami to Key West segment of the Atlantic Intracoastal Waterway; in Manatee River; Oklawaha River; in the St. Johns River between Jacksonville and Lake Harney and on the Withlacoochee River.

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EDITOR'S PREROGATIVE

Everyone around our shop is busy trying to make sure that all you geographers have a good SEAAG meeting here in Tallytown next month. This column offers me a good opportunity to announce an FSU alumni breakfast on Tuesday morning at 7:45. Please see the Official Program for details. We won't be too exclusive. If some "friends" of the department show up we will be cordial to you.

While on the topic of the coming meetings let me call your attention to the fact that the Alabama Geographers will hold their next state meeting in Tallahassee, in conjunction with SEAAG. V-e-r-y interesting.

Last week I had some business in the office of Dr. Travis Northcutt, the Coordinator of Social Sciences in the Board of Regents Office. He indicated that the BOR has constituted several committees to survey the status of selected disciplines in the State University system. These committees, as I understand them, are to be welcomed in that they will be made up of faculty members within the disciplines, for the purpose of coordinating efforts to strengthen them. I suggest that the FSG go on record as supporting such a committee on geography in the State system. It would be a great opportunity to direct attention to our strengths, and more importantly, to note that a number of state universities and junior colleges do not have geographers in them. I was assured that the BOR would be happy to have a committee on geography.

Let me call your attention to the flurry of professional activity at the University of Miami reported in another section of this paper. The report shows both the staff and the new department head are going to help strengthen the position of geography in Florida. Keep up the good work. Please note, this does not imply that no one else is working.

Let me encourage all geographers in Florida to attend not only the SEAAG meetings but the NCGE meetings in Houston during the Thanksgiving weekend. The meeting will be in Houston in concert with the National Council for the Social Studies and the theme will be "Geographic Learning for the Future." Several field trips will be of interest, especially that of the NASA control center and that of the Houston Ship Canal industrial area.

DEVELOPING ENVIRONMENTAL LAW

What lawyers and law schools can do to protect the environment from further destruction was the topic under discussion by lawyers and conservationists at a unique conference sponsored by the Conservation Foundation and the Conservation and Research Foundation last month. The conference brought together some 65 of the nation's leading conservation lawyers and law professors.

Some of the recommendations of the conference were:

- An *environmental law center* should be formed to serve as a nationwide focal point for legal programs. It could serve as a national legal action organization, as a clearinghouse for information on scientists and other expert witnesses needed to testify in environmental cases, and as a source of help in preparing briefs in conservation cases. It could help draft model conservation laws.
- A *new legal publication* should be created to provide comprehensive information on environmental law throughout the country, including news of court decisions, legislation and administrative regulations.
- An *early warning system* should be developed to provide timely notice of proposed major environmental modifications so that concerned action groups can become involved early enough to do some good.
- An *environmental ombudsman-type agency* should be created as an arm of Congress. Its job would be to ferret out and publicize information on environmental threats. It should have authority to require proponents of questioned projects to answer directly, in public and in language the public can understand. The agency would assure that the potential costs, risks and adverse consequences of technology will be articulated as fully and vigorously as the potential benefits.
- *Law schools* should expand their environmental law programs. Environmental courses should be made compulsory. Courses should cover the entire range of natural resource decision-making. Increasing student interest in conservation issues should be encouraged by giving credit for involvement in real problems, including analysis of major resource-managing agencies, the laws under which they operate, the effectiveness of the laws and of the agencies' administration of the programs.
- *Law schools* should also help practicing environmental attorneys by undertaking research and helping shape changes in legal theory, doctrine and conservation lawsuit tactics.
- *Bar associations* should organize environmental law sections or committees. Practicing attorneys should develop greater understanding of the scientific disciplines often essential to environmental cases.
- *Lawyers in general* need to play a greater role in the legislative process. They should take the lead in promoting broad, comprehensive improvements in the law.

THE FLORIDA GEOGRAPHER

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