Resume August 2017

**Jack McKinley Hill, Ph.D.**

***Address:***

Office: Sam Houston State University

Office of Research and Sponsored Programs

2424 Sam Houston Avenue, Suite B-8

Box 2448

Huntsville, Texas 77320-2448

Work Phone: (936) 294-3876

E-mail: jackhill@shsu.edu

***Education:***

**Ph.D. Biology** (Coastal, Marine, and Terrestrial/Forest Ecology, Biology, and Land Use Management; Remote Sensing/GIS Technologies and Applications)

Texas A&M University, College Station, Texas, August 1978

**M.S. Biology** (Terrestrial, Wetland, and Aquatic Biology/Ecology; Water- Quality; and Remote Sensing)

The American University, Washington, D.C., December 1973

**B.A. Biology** (Terrestrial and Aquatic Biology/Ecology)

Towson University, Towson, Maryland, June 1971

***Professional Experience:***

**Sam Houston State University (SHSU)**

**Office of Research and Sponsored Programs (ORSP)**

***Director of Innovative Collaborative Programs***

**2011-Present**

Participate in policy formation and in determining the direction for research at Sam Houston State University. Work with faculty members, deans, and senior administrators to provide leadership through the development and organization of collaborative research initiatives.

**World Data Center for Biodiversity and Ecology**

***Director***

**2003-2010**

The World Data Center (WDC; established in 2002) for Biodiversity and Ecology was established for the benefit of the international scientific community and operated according to International Council of Scientific Unions (ICSU) principles and procedures for World Data Centers. Centers in the US were managed through the US Academy of Sciences. The mission statement of the WDC System was as follows: *“Data constitute the raw material of scientific understanding. The World Data Center system works to guarantee access to solar, geophysical and related environmental data. It serves the whole scientific community by assembling, scrutinizing, organizing and disseminating data and information.”*

A new ICSU World Data System was established in 2009, building on the 50-year legacy of the WDCs and the ICSU Federation of Astronomical and Geophysical Data Analysis Services, with the goal of transiting from existing stand-alone services to a common globally interoperable distributed data system that incorporates emerging technologies and new scientific data activities.

***Houston Advanced Research Center (HARC)***

***Vice President/Director/Senior Scientist***

**Environmental Program**

**1990-2003**

Provide the executive and scientific leadership and vision for the Environmental Program (the organization’s largest staffed and funded program). Lead strategic planning of integrated and interdisciplinary research programs. Provide long-term direction, set priorities, acquire resources, and conduct reviews. Assure that the program priorities and goals stay at the forefront of state, regional, and national policies and emerging priorities. Manage the program staff responsible for conducting a diverse range of biological, natural resource, and information science projects/programs. Work with a wide-ranging customer base to establish and fund projects. Ensure that effective customer feedback mechanisms are in place. Acquire and administer human (including assignments, scheduling, reviews), financial (including budgetary review and accountability), material, and information services.

Major research activities focused on biology, biodiversity, ecology, wildlife, human-wildlife diseases, environmental and natural resource status and trends, water-quality, invasive species, informatics, and sustainable development issues. Examples of collaborative scientific programs, each requiring a high level of partnership building, included: 1) NASA sponsored National Pollution Discharge Elimination System (NPDES) Application Development Program, 2) NASA sponsored Airborne LIDAR Commercialization Program for Topographic Mapping Applications, 3) FEMA sponsored Floodplain Assessment and Management Program, 4) USGS sponsored Central Southwest/Gulf Coast Regional Node of the National Biological Information Infrastructure ( NBII) Program (this collaborative scientific program includes the current high priority needs of other DOI bureaus which are identified along with appropriate responses/implementation), and 5) Chair of the NBII Coalition. Represented HARC, the biological science community and the nation on/with science panels, advisory groups, international committees, local, state and federal agencies, the state legislature and Congress, academic institutions, corporations, public groups, NGO’s, and coalitions.

Research activities included the following projects/programs:

* USGS/NBII Central Southwest/Gulf Coast Information Node (PI) - $900,000/FY01, $850,000 FY02, $850,000 FY03 for total of $2.6 million,
* NASA/Harris County Flood Control District (Co-PI) – National Pollution Discharge Elimination System (NPDES) Application Development- $1 million for 2 years,
* NASA and industry (TerraPoint, LLC) funded research, development, and commercialization of airborne LIDAR technology for topographic applications - $2M from NASA and $5M from industry for a total of $7M.
* Total R&D Funding while at HARC – Approximately $19M.

Texas A&M University, Geography Department

#### Adjunct Professor (Graduate Faculty)

**1991- 1997**

Provide leadership (mentoring) in the planning of graduate student research programs; help set priorities and review thesis and dissertation research. Conduct departmental lectures on the state-of-the-science application of geospatial/informatics technologies in support of environmental and natural resource decision making.

***Louisiana State University (LSU), College of Engineering***

**Associate Professor (Tenured); Department of Civil Engineering**

**Associate Director, Remote Sensing and Image Processing Laboratory (RSIP);**

**College of Engineering**

**1979-1990**

Provide leadership for developing and achieving an integrated biological, natural resources, and informatics science research vision for the Remote Sensing and Image Processing Laboratory (RSIP) and supported the teaching goals of the University. Designed, planned, conducted, and managed interdisciplinary research and development projects/programs and academic initiatives. Lead strategic planning of research programs and education curriculum; forecast future directions of biological science and technologies; set priorities; and conducted program reviews. Research programs focused on forest/wetland ecology, status and trends, water-quality, informatics, and sustainable development issues. Provided leadership (mentoring) in the planning of graduate student research programs; set priorities and reviewed thesis and dissertation research. Acquired and administered human, financial, material, and information services. Consulted with internal and external partners and constituents to ensure that research programs reflected their priority concerns and supported biological natural science decision making. Wrote and/or reviewed technical documents (i.e., research proposals, reports, marketing materials, journal articles, etc.).

Major research programs included: 1) Co-Principal Investigator (PI) of the USGS and industry sponsored Coastal Resources Trends and Status Project, 2) PI of the NASA sponsored International Spatial Analysis and Modeling System (SAMS), 3) PI of the USGS sponsored Rice Irrigation Water Resources Utilization Program, 4) PI of the Louisiana Department of Environmental Quality (DEQ) sponsored Geographic Information System (GIS) Demonstration project, and 5) PI and/or researcher of the Louisiana Department of Natural Resources (DNR), USGS, and MMS sponsored Applications of GIS to Coastal Zone Management Program. Represented the organization (research laboratory and academic department) with other university research and academic departments/groups/programs; science panels; local, state, and federal agencies; state legislature and Congress; other academic institutions; corporations; partners; clients; public groups; and non-government organizations (NGOs).

***Environmental Protection Agency (EPA), Headquarters, Washington, DC and Environmental Monitoring and Support Laboratory (EMSL)*, *Las Vegas, Nevada***

###### Research Biologist (Intergovernmental Personnel Act [IPA] Appointment) and

###### Environmental Specialist

**1976-1978**

Member of a project team responsible for the coordination, review, and evaluation of

joint EPA and NASA research programs focused on the development of satellite

generated remote sensing and image processing capabilities to support national

environmental and natural resource status and trend assessments. The goal was to

provide new technology and analysis tools to assist resource managers and policy makers

in decision making. Designed and implemented beta tests for remote sensing, image processing, and GIS technology analysis systems for environmental research, monitoring, and regulatory applications. Conducted research that was focused on the analysis and prediction of land use/land cover, water quality, environmental, and natural resource status and trends (with an emphasis on forest, wetland, and coastal ecosystems).

***Texas A&M University (TAMU), College of Engineering***

###### Research Associate and Chief Scientist

**1973-1978**

Member of a team that provided leadership for creating and achieving the biological, natural resources, and informatics science research vision of the Remote Sensing Center (RSC). Lead in strategic planning of research programs that were focused on biology, biodiversity, ecology, forestry, oceanography, status and trends, water-quality, and sustainable development issues. Acquired and administered human, financial, material, and information services. Consulted with internal and external partners and constituents to provide advisory services, develop collaborative scientific programs, formulate partnerships, and to advance the general communication and understanding of the RSC and its capabilities to support biological and natural sciences decision making. Wrote and/or reviewed technical documents. Designed, planned, conducted, and managed research and development projects.

Integrated and interdisciplinary research projects included: 1) Chief Scientist of the EPA, NOAA, and NASA sponsored Ocean Color Experiment Program aboard Jacques Cousteau’s RV Calypso and 2) environmental monitoring of the status and trends of forestry activities with respect to estuarine water quality and associated decision making. Participated in the Undersea World of Jacques Cousteau’s television special entitled “The Sleeping Sharks of the Yucatan.” Represented the RSC with other university research institutions and academic departments, federal agencies, and public groups.

### Key Research Sponsors/Partners:

* Department of Agriculture (USDA):
* US Forest Service (USFS), and
* Natural Resources Conservation Service (NRCS),
* Department of Defense (DOD)
* U.S. Army Corps of Engineers (ACOE):
  + Construction Engineering Research Laboratory (CERL),
  + Waterways Experiment Station (WES),
  + Topographic Engineering Center (TEC), and
  + ACOE Districts
* Department of the Interior (DOI):

- US Geological Survey (USGS),

- US Fish and Wildlife Service (USFWS),

- National Park Service (NPS), and

- Minerals Management Service (MMS),

* Environmental Protection Agency (EPA),
* Federal Emergency Management Agency (FEMA),
* National Aeronautics and Space Administration (NASA),
* National Institute of Health (NIH),
* National Oceanographic and Atmospheric Administration (NOAA),
* National Science Foundation (NSF),
* Office of National Drug Control Policy (ONDCP),
* US Agency for International Development (USAID),
* US Trade Development Agency (TDA),
* United Nations (UN):
* Food and Agriculture Organization [FAO], and
* World Health Organization [WHO]),
* State Agencies (i.e., Texas Parks and Wildlife Department, Texas Army National Guard [TXANG], Louisiana Department of Environmental Quality, Texas Natural Resources Information System [TNRIS], Texas Forest Service, Texas Department of Transportation [TXDOT], Louisiana Department of Natural Resources, Louisiana Forest Service, Louisiana Department of Transportation, Louisiana Geological Survey, Louisiana Water Resources Research Institute (LWRRI)],
* Universities (i.e., Sam Houston State University, Texas A&M University, Louisiana State University)
* County Agencies (i.e., Harris County Flood Control District, TX),
* Non-Governmental Organizations (NGOs; i.e., The Nature Conservancy, Academy of Sciences’ National Research Council [NRC], Montgomery County United Way),
* Private Foundations (i.e., The Houston Endowment, Hewlett Foundation, MacArthur Foundation), and
* Industries (i.e., Aero-Data Corporation, Michael Baker Corporation, TerraPoint LLC, Tetra Tech International, Texaco, Transamerica, URS Corporation, Woodward Clyde,).

***Awards, Recognitions, and Scientific Societies:***

* **David Cameron Environmental Crime Award,** in recognition of geographic information system (GIS) support provided to the Environmental Investigations Unit, assigned to the Special Investigations Command, Major Offenders Division of the Houston Police Department (HPD). Presented by the International Association of Chiefs of Police (IACP), 2012.
* **Chief of Police Commendation,** in recognition of geographic information system (GIS) support provided to the Environmental Investigations Unit, assigned to the Special Investigations Command, Major Offenders Division of the Houston Police Department (HPD), 2012.
* **Special Recognition** - presented by the National Office of the of the US Geological Survey’s GAP Analysis Program Office in recognition of vision and dedication to the development of the Protected Area Database of the United States (PAD-US), 2007/08.
* **Gold Medal,** in recognition of uniqueness, originality, complexity, technology, and value to the engineering profession and meeting the needs of the client. Presented to the URS Project Team by the Texas Council of Engineering Companies for the NASA/HCFCD sponsored project entitled “Characterizing, Monitoring, Understanding, and Regulating Rapidly Growing Urban Watersheds”, 2007.
* **Conservation Service Award (CSA)**, the “highest honor that can be bestowed upon a private citizen or group by the Department of the Interior”. Presented by Secretary of the Department of Interior (DOI) Gail Norton and “recognizes outstanding performance and direct service to the effectiveness of the Department's mission in conjunction with one or more bureaus”, 2005.
* **Fellow,** Association for the Advancement of Science (AAAS), in recognition of “advances in the research, development, integration, and operational application of remote sensing, spatial analysis, and bioinformatics technologies and for fostering the adoption of information technologies in the quantitative assessment of the status and trends of natural ecosystems,” 2003.
* **Loyal Order of Hymenoptera Award** - Presented by the Director of the US Geological Survey (USGS) in "recognition of honorable services performed in connection with this Department's conservation activities”, 2001.
* **John I. Davidson President’s Award for Practical Papers,** American Society for Photogrammetry and Remote Sensing (ASPRS), First Place recipient, 2001.
* **National Resource Award** - NASA/Goddard Space Flight Center, in recognition of the success of the Airborne LIDAR Topographic Mapping System Commercialization Project, 1999.
* **Government Technology Leadership Award** - NASA/Goddard Space Flight Center, in recognition of the Airborne LIDAR Topographic Mapping System, 1999.
* **Group Achievement Award -** NASA/Goddard Space Flight Center, in recognition of the success of the Agro-Climatic Environmental Monitoring Project, Bangladesh 1986.
* American Association of Geodetic Surveying (AAGS), Full Member 1995.
* American Institute of Biological Sciences (AIBS), 2008-2009.
* Society for Conservation Biology (SCB), 2006-2009.
* American Association for the Advancement of Science (AAAS), 2002-2011.
* Beta Beta Beta (National Biological Honor Society).
* Sigma Xi (The Scientific Research Society).
* American Society of Photogrammetry and Remote Sensing (ASPRS), 1975-Present.

***Security Clearance:*** Secret Level (1991-2003, Houston Advanced Research Center)***.***

***Professional Certifications:***

**Certified Mapping Scientist** - GIS/LIS - No. GS111; American Society of Photogrammetry and Remote Sensing (ASPRS).

**Certified Mapping Scientist** - Remote Sensing - No. RS111; American Society of Photogrammetry and Remote Sensing (ASPRS).

***Continuing Education:***

* Texas Invasive Species Conference Certificate of Completion. Texas Department of Agriculture Approved - 15 CEUs through Course #0733883. March 2016.
* Texas Environmental Laws – Texas Water Code 7.145, Texas Health and Safety Codes Seminar, Houston Police Department, Major Offenders Division, Environmental Investigations Unit, September 2013.
* Illegal Dumping Enforcement Course (TCLEOSE) – Dr. John Eckels, Instructor; Houston-Galveston Area Council and Texas Council for Environmental Quality (TCEQ), July 2013.
* Advanced Illegal Dumping Enforcement Course (TCLEOSE) – Dr. John Eckels, Instructor; Houston-Galveston Area Council and Texas Council for Environmental Quality (TCEQ), July 2013.

***Companies Created/Founded:***

1982- **Aero-Data Corporation** (Co-Founder). Aero-Data is an environmental   
1991 remote sensing consulting firm. Services include: high-quality current and

historical aerial photographs, custom aerial photo flights, topographic and GIS

mapping, photointerpretation, expert reports, and expert witness testimony.

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| 1998-  2002 | **TerraPoint, LLC** (Consulting Vice President and Co-Founder). Helped create the company (through NASA commercialization grants and industry sponsorship – Transamerica Corporation) and assisted in the development of core business, science, and technology strategies. Conducted initial ground-breaking national and international environmental, ecosystem, natural resources, urban planning, and floodplain management applications projects using airborne LIDAR generated topographic data. |

***Consulting/Outreach/Applied Research (Strategic Planning and Research Initiative***

***Development)***

***Watershed Monitoring: Remote Sensing and Geospatial Information Systems***

2003- URS Corporation, Harris County Flood Control District, NASA. Researched and

2009 applied integrated airborne LIDAR and multispectral satellite (IKONOS) data

to characterize, monitor, understand, and regulate growing urban watersheds

(conducted in the capacity of a NASA Co- Principal Investigator).

2008- Tetra Tech International, Inc. Helped develop a remote sensing

2009 and geospatial data and information management system to monitor land use

changes in the Panama Canal watershed (associated with the payment of

sustainable forestry preservation services/incentives to local land owners).

***Wetland Status and Trends***

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| 1992-  1994 | Breedlove, Dennis, and Associates, Orlando, Florida. Assisted in the design of a system to assess vegetation change analysis in the Florida Everglades. |

#### *Fisheries: Geospatial Technology*

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| 1987 | Food and Agriculture Organization (FAO), United Nations. Developed and taught a short course on "Applications of GIS and Remote Sensing to Fisheries Development"; Beijing, China. |

***Coastal Ecosystem and Water Quality Status and Trends***

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| 1980 | EPA/EMSL, Las Vegas. Developed and taught a short course to train Virginia and Maryland personnel (Chesapeake Bay Program) in the use of Landsat satellite data to monitor the Chesapeake Bay, Maryland. |

***University, Regional, National, and International Scientific Technical Committees and***

***Societies:***

**Member:** GIS Advisory Board, Department of Digital & Information Technology, Harris Community College (HCC). 2016-Present.

**Member:** Unmanned Aerial Systems (UAS) Advisory Committee, Office of Research and Sponsored Programs, Sam Houston State University. 2016-Present.

**Session Chair** (Research): Texas Invasive Plant and Pest Conference. Sam Houston State

University, March, 2016.

**Member,** Patent Committee, Office of Research and Sponsored Programs, Sam Houston State

University. 2012 - 2015.

**Member,** Emergency Management Working Group at Sam Houston State University, February

2013 – 2016.

**Member,** Geographic Data Workgroup (GDW) of the Houston-Galveston Area Council

(HGAC), September 2011 - Present.

**Member**, Operations Committee of the Southeast Texas Applied Forensic Science Facility

(STAFS) at Sam Houston State University; one of only four research and training facilities in the

Nation designed to advance academic and technical knowledge in the application of Forensic

Science disciplines to crime scenes, October, 2012.

**Head of Delegation,** World Data Center for Biodiversity and Ecology as an Associate

Participant organization in the Global Biodiversity Information Facility (GBIF),

Copenhagen, Denmark, April 2005–2010.

**Session Chair**, World Biodiversity Congress; Biological Informatics Session, Chiang Mai, Thailand, March, 2009.

**Member*,*** Data Utilization Subgroup, Intergovernmental ad hoc Group on Earth

Observations (GEO and USGEO), established after the Earth Observation Summit to

prepare a 10-year implementation plan for a coordinated, comprehensive, and sustained

Earth observation system or systems among governments and the international

community to understand and address global environmental and economic challenges,”

October 2003-2005.

**Member*,*** Interagency Working Group on Earth Resources (IWGEO), Executive Office of The President of the United States, National Science and Technology Council (NSTC), Committee on Environmental and Natural Resources (CENR), established after the Earth Observation Summit to prepare “the 10-year plan for developing an integrated Earth Observation System for the United States in conjunction with the international community” (U.S plan to be integrated with GEO; see above), October 2003-2006.

**Member*,*** GIS Applications to Biodiversity Working Group and Funding Development Committee, Global Biodiversity Information Facility (GBIF), Copenhagen, Denmark, April 2003-2007.

**U.S. Delegate,** Joint U.S./INDO (India) Biodiversity Delegation/Initiative, December 2004-2010.

**Ex-Officio Member*,*** National Biological Information Infrastructure (NBII) Science

Committee, U.S. Geological Survey (USGS), September 2003-2010.

**Technical Working Group Member*,*** National Science Foundation(NSF) Biodiversity and Ecosystem Informatics (BDEI) Workshop, Spatial and Temporal Data, and Remote Sensing Group, Washington, D.C., February 2003.

**Fellow,** American Association for the Advancement of Science (AAAS). 2003-Present.

**Member*,*** American Association for the Advancement of Science (AAAS), Section (T) on Information, Computing, and Communication. 2002-2008.

**Member,** American Society of Photogrammetry and Remote Sensing (ASPRS). 1976-Present.

**Affiliate Member*,*** United Nations’ (UN) Convention on Biodiversity (CBD), Clearing House Mechanism (CHM). 2002-2004.

**U.S. Delegate*,*** Global Biodiversity Information Facility (GBIF), Copenhagen, Denmark,

October 2002-2005.

**U.S. Delegate,** Inter-American Biodiversity Information Network (IABIN), City of Knowledge, Panama, June 2002-2007.

**Session Co-Chair**, National Council for Science and the Environment (NCSE). 2nd Conference on Science, Policy, and the Environment “Sustainable Communities: Science and Solutions”, Information Technology Session. Washington, D.C., December 2001.

**Panel Chairman**, “NASA’s Plan for Spaceborne SAR Remote Sensing” Workshop. Houston, Texas, January 2000.

**Committee Member**, Space and Natural Disasters Reduction Committee. International Astronautical Federation. Paris, France, 1992-2000.

**Technical Committee Member**, International Symposium on Spectral Sensing Research: High Resolution Spectral Sensing of the Environment. Maui, Hawaii, November, 1992.

**President**, Mid-South Region of the American Society of Photogrammetry and Remote Sensing, 1986 - 1987 Term.

**Corresponding Member**, Remote Sensing Task Committee, American Society of Civil Engineers (ASCE), 1984 - 1990.

**Technical Committee Member**, Sea-WiFS (Ocean Color) Working Group, NASA/EOSAT sponsored workshop to evaluate scientific and operational requirements of the Sea-Wide Field Sensor on Landsat-6, Lanham, Maryland, 1987.

**Technical Committee Member**, Thematic Mapper Scientific Working Group (NASA sponsored), Greenbelt, Maryland, 1983.

**Chairman**, Remote Sensing of Water Resources Panel, Interactive Symposium and Workshop on Applications of Remote Sensing for Rice Production. NSF sponsored. National Remote Sensing Agency, Hyderabad, India, 1981.

**Chairman**, NASA Landsat E, Multispectral Resource Sampler Planning Oceanography Panel, Colorado State University, Fort Collins, Colorado, 1979.

***Published Journal Articles:***

1. **Hill, J.M.**  and D. S. Graham. Using Enhanced Landsat Images for Calibrating Real-Time Estuarine Water Quality Models. *Water Quality Bulletin* (United Nations, World Health Organization). 5(1):20-23, 1980.
2. Graham, D.S., J.P. Daniels, **J.M. Hill**, and J.W. Day, Jr. A Preliminary Model of the Circulation of Laguna de Terminos, Campeche, Mexico. Anales de este Centro. *Publicaciones del Centro de Ciencias del Mar y Limnologia*. University Nacional D. Mexico. A Yanez - Aracibia (Ed.). 8(1):51-62, 1981.
3. **Hill**, **J.M.,** P. M. Zimmerman, and C.A. Harlow. Applications of a Geographic Information System to Manipulate Environmental Data. *The Environmentalist.* Elsevier Sequoia, Switzerland. 3(1):33-38, 1983.
4. Graham, D.S., and **J.M. Hill**. Field Study for Landsat Water Quality Verification. ASCE/*Journal of Transportation - Aerospace Division*. 109(5):640-650, 1983.
5. Sasser, C.E., M.D. Dozier, J.G. Gosselink, and **J.M. Hill**. Spatial and Temporal Changes in Louisiana's Barataria Basin Marshes, 1945-1980. *Journal of Environmental Management.* 10(5):671-680, 1985.
6. Hughes, J.S., D.L. Evans, P.Y. Burns, and **J.M. Hill**. Discrimination of Southern Pine Species on Low-Level Aerial MSS Imagery. *Journal of Photogrammetry and Remote Sensing*. 52(8):1175-1180, 1986.
7. **Hill**, **J.M.,** V.J. Singh and H. Aminian. A Computerized Data Base for Flood Prediction Modeling. *Water Resources Bulletin*. 23(1):21-27, 1987.
8. Braud, D.H., Jr., and **J.M. Hill**. A Decision Tree for Coastal Management Permit Guidelines. *Journal of Environmental Management*. 12(1):29-36, 1988.
9. Kapetsky, J.M., **J.M. Hill**, and L.D. Worthy. A Geographical Information System for Catfish Farming Development. *Journal of Aquaculture*. Elsevier, Netherlands. 68:1-10, 1988.
10. Kapetsky, J.M., **J.M. Hill**, L.D. Worthy, and D.L. Evans. Assessing Potential for Aquaculture Development with a Geographic Information System. *Journal of the World Aquaculture Society*. 21 (4):241-249, 1990.
11. Evans, D.L., and **J.M. Hill**. Landsat TM Versus MSS Data for Forest Type Identification. *Geocarto International.* 3:13-20, 1990.
12. Zukowski, S.H., **J.M. Hill**, F.W. Jones and J.B. Malone. Development of a Soil-Based Geographic Information System Model of Habitat of Fossaria bulimoidas, a Snail Intermediate Host of Fasciola hepatica. *Preventive Veterinary Medicine.* 11:221-227, 1991.
13. Evers, D. E., J.G. Gosselink, C.E. Sasser, and **J.M. Hill**. Wetland Loss Dynamics in Southwestern Barataria Basin, Louisiana (USA), 1945-1985. *Wetlands Ecology and Management*. SPB Academic Publishing by The Hague. 2(3):103-118, 1992.
14. **Hill, J.M.**, L.A. Graham, R.J. Henry, D. Cotter, A. Ding, and D. Young. Wide-Area Mapping and Applications Using Airborne LIght Detection and Ranging (LIDAR) Technology. *Journal of Photogrammetry and Remote Sensing*. 66(8):908-914, August 2000.
15. Bucheli, S.R., Z. Pan, C. L. Glennie, A. M. Lynne1, D P. Haarman, and **J. M. Hill**. Terrestrial Laser Scanning to Model Sunlight Irradiance on Cadavers under Conditions of Natural Decomposition. International Journal of Legal Medicine. 128(4):725-32, July 2014.
16. Scarbrough, A., **J.M.** **Hill**, and W. Panupong. A Picture Is Worth A Thousand Words: Using Visualization to Illustrate the Impact of Assets on Health. Journal of Pedagogy in Health Promotion. August 2015.
17. Scarbrough, A., and **J.M. Hill**. How Graphic Information Systems (GIS) Can Influence Eating Behaviors of College Students. Journal of Nutrition and Health. October 2016.
18. Scarbrough, A., **J.M. Hill**, and J. Rodriguez. Collaborating to Create Healthier Communities: How Geographical Information Systems (GIS) Can Drive Community Well-Being. International Quarterly of Community Health Education. December 2016.
19. Scarbrough, A., **J.M. Hill**, D. Hoffpauir, M. Holt, and H. Rathnasekara. Gateway of Zika Virus into US: How Housing is Fundamental to Prevention. Texas Journal of Public Health. In review. July 2017.

***Conference Proceedings:***

# Health Science and Emerging Human-Wildlife (Zoonotic) Diseases:

1. Scarbrough, A, **J.M. Hill,** and D. Hoffpauir. Teaching Students about Health through Mapping. 2017 Teaching and Learning Conference. Sam Houston State University, Huntsville, Texas. August 2017.
2. **Hill, J.M.** and D. Hoffpauir. GIS Applied to University Administration Needs: Technology Advancements/R&D, New Academic Programs, Texas Supreme Court Requests, Marketing/Fund Raising, and Economic Reach. Texas GIS Forum 2016. Austin, Texas. October 2016.
3. **Hill, J.M.,** A. Scarbrough, and D. Hoffpauir. Innovative Public Health Care GIS Applications. Medicine-Humanities-Social Sciences Round Table Symposium. Sam Houston State University. March 2016.
4. **Hill, J.M.**, A. Scarbrough, D. Hoffpauir, and W. Panupong. Innovative Public Health Care Applications. Texas GIS Forum. Austin, Texas. October 2015.
5. **Hill, J.M.**, A. Scarbrough, D. Hoffpauir, and W. Panupong. Asset Mapping, Gap Analysis, and Visualization to Improve Health Care Decision Making. First Annual International Conference on Health Care, San Jose, Costa Rica, September 2015.
6. Zukowski, S., J.B. Malone, and **J.M. Hill**. Use of a Computerized Geographic Information System to Model Potential Habitat of *Fossaria Bulimoides*. Proc. 36th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Los Angeles, California. November 1987.
7. **Hill**, **J.M.,** D. Flint, G. Gladish, and F. Stetina. Case Studies of a Natural Resource and Economic Development Analysis System. 10th ASEAN Conf. on Remote Sensing. Kuala Lumpur, Malaysia. November 1989.
8. **Hill, J.M.** Impact of Space Technology on Health Care. United Nations International Conference on Spin-Off Benefits of Space Technology. Tampa, Florida. March 1998.

# National/International Bioligical Informatics:

1. Stetina, F., C. Vermillion, and **J.M. Hill**. A Uniform Global Monitoring and Environmental Data Acquisition and Distribution System. 12th Asian Conf. On Remote Sensing. Singapore. October 1991.

1. Cotter, G.A., T. Hermann, and **J.M. Hill.** Bioinformatics and Biodiversity. The International Conference on Bioinformatics (InCoB) 2002: North-South Networking. Bangkok, Thailand. February 2002.
2. **Hill, J.M.**. Building the US National Biological Information Infrastructure (NBII): Synergy Between Regional and National Initiatives. CODATA 2002 Frontiers of Scientific and Technical Data. Topic Area - Biological Sciences: The Challenge for Biodiversity and Ecosystem Informatics. Montreal, Canada. September 2002.
3. **Hill, J.M.,** G. Cotter, B. Carroll, and T. Lahr. Building the National Biological Information Infrastructure (NBII). BioThailand 2003: The International Conference on Biodiversity and Bioactive Compounds (InCoB). Pattaya, Thailand. July 2003.
4. Hermann J.,G. Cotter, T. Lahr, and **J.M. Hill**. Bioinformatics Enabling Biodiversity and Societal Benefits. 19th International CODATA Conference. The Information Society: New Horizons for Science. Berlin, Germany. November 2004.
5. Hermann J., G. Cotter, T. Lahr, **J.M. Hill**, and C. Wilson. Successful Solutions to Global Biodiversity Data Digitization, Validation, Update, Integration, Access, and Application. 20th International CODATA Conference, Beijing, China. October 2006.
6. **Hill, J.M.**, Significant Advancements in Quantity, Quality, Integration, and Access to Global Interdisciplinary Ecological Data and Information. Ecological Complexity and Sustainability: Challenges and Opportunities for the 21st Century Conference. Beijing, China. May 2007.
7. **Hill, J.M.**, WDC Integrated Global Data and Delivery Tools in Support of GEOSS Biodiversity and Ecological Societal Benefits. IUGG XXIV General Assembly: Earth, Our Changing Planet. Perugia, Italy. July 2007.
8. Hermann, T., T. Lahr, G. Cotter, **J. M. Hill**. Global Biodiversity and Ecological Metadata Constraints and Recommended Solutions. 21st International **CODATA** Conference. Kiev, Ukraine. October, 2008.
9. Cotter, G. and **J.M. Hill**. Integrating National, Hemispheric and Global Data Sets: Delivery Tools, Challenges and Solutions. World Biodiversity Congress. Chiang Mai, Thailand. March, 2009.

***Forest Ecology/Habitat Characterization/Threatened and Endangered Species/Invasive Species:***

1. **Hill**, **J.M.,** D.L. Evans, and L. Carpenter. Remote Sensing of Little River, Cossatot River, and Pond Creek Bottoms in Sevier County, Arkansas. U.S. Army Corps of Engineers Remote Sensing Symposium. Nashville, Tennessee. November 1981.
2. Evans, D.L., P.Y. Burns, and **J.M. Hill**. Landsat Imagery for the Interpretation of Louisiana Forest Habitat Regions. Proc. ACSM-ASP 43rd Annual Spring Meeting. Washington, D.C. March 1983.
3. Tweddale, S., R. Leyva, L. Graham, **J.M. Hill**, D. Evans, S. Roberts, and P. Campbell. LIDAR and Multispectral Imagery for Avian Habitat Assessment. Threatened, Endangered, and At-Risk Species Research Symposium and Workshop on DoD and Adjacent Lands. Baltimore, Maryland. June 2005
4. Tweddale, S., R. Leyva, L. Graham, **J.M. Hill**, D. Evans, S. Roberts, and P. Campbell. LIDAR and Multispectral Imagery for Avian Threatened and Endangered Species Habitat Assessment. Special Symposium entitled Light Detection and Ranging and Applications for Wildlifers. Annual Wildlife Society Conference. Anchorage, Alaska. September 2006.
5. **Hill, J.M.**, M. Nobles, and D. Hoffpauir. GIS Applied to Environmental Crimes Enforcement and Invasive Species. Texas GIS Forum. Austin, Texas. October 2012.
6. Messer, R., **J.M. Hill**, D. Hoffpauir, J. Cook, A. Smith-Herron, and B. Piper. Ecological Systems Classification and Mapping Project Data Applied to Invasive and Endangered Species. Texas GIS Forum. Austin, Texas. October 2014.

***Coastal and Marine Ecology/Status and Trend:***

1. Harlan, **J.M. Hill**, C. Bohn, and H.A. El-Reheim. A Biological and Physical Oceanographic Remote Sensing Study Aboard the Calypso. Proc. Tenth International Symposium on Remote Sensing of the Environment. Ann Arbor, Michigan. 1975.
2. Graham, D.S., **J.M. Hill**, and B.A. Christensen. Verification of an Estuarine Model for Apalachicola Bay, Florida. Proc. ASCE Symposium on Mathematical and Physical Models in Hydraulic Engineering. University of Maryland. August 1978.
3. Dozier, C. E. Sasser, and **J.M. Hill**. Assessment of Coastal Deterioration Using Historical Photography and a GIS. Proc. National Conference on Energy Resource Management. Energy Planning Division. Baltimore, Maryland. September 1982.
4. **Hill**, **J.M.,** C.A. Harlow, and D. Braud. Remote Sensing and Geographic Data as Applied to the Louisiana Coastal Zone. Intern. Geoscience and Remote Sensing Symp. (IGARSS'81). IEEE Geoscience and Remote Sensing Society. IEEE Catalog No. 81CH1656-8. Washington, D.C. V. 2. June 1981.
5. Dozier, S.M., C.E. Sasser, J.C. Gosselink, and **J.M. Hill**. Assessment of Coastal Deterioration Using Historical Photography and a Geographic Information System. Proc. RNRF Symp. on the Application of Remote Sensing for Resource Management. Seattle, Washington. May 1983.
6. **Hill**, **J.M.** and L.D. Worthy. A GIS Applied to the Assessment of Natural and Man-Made Impacts of Deltaic Ecosystems. Proc. of Conf. on Integration of Remotely Sensed Data in GIS's for Processing Global Resource Information. Center for Earth Resource Management. Washington, D.C. May 1985.
7. Leibowitz, S., **J.M. Hill**, and E. Parton Evers. Computerized Analysis of Spatial Trends in Wetland Loss in Louisiana. Proc. 7th Annual Gulf of Mexico Info. Transfer Meeting. U.S. Dept. of Interior. Mineral Management Service (MMS 87-0058). New Orleans, Louisiana. November 1986.
8. Leibowitz, S. and **J.M. Hill**. Influence of Spatial Factors on Land Loss in Coastal Louisiana. Proc. 8th Annual Meeting of Soc. of Wetland Scientists. Seattle, Washington. May 1987.
9. Leibowitz, S. and **J.M. Hill**. Testing Landscape Level Hypotheses with Spatial Analysis: An Example Based on Coastal Land Loss. Proc. 9th Biennial Estuarine Research Conf. Estuarine Research Federation. New Orleans, Louisiana. October 1987.
10. Krone, M., W. Grip, I. Mendelssohn, **J.M. Hill**, and F. Monteferrante. Aerial Monitoring of Marsh Regeneration Along a Single and Double-Ditched Pipeline. Proc. of 4th Symp. on Environmental Concerns in Rights-of-Way Management. Purdue University, Indiana. October 1987.
11. Leibowitz, S. and **J.M. Hill**. Use of Digital Habitat Maps in Studying Landscape Processes: Effect of Spatial Factors on Land Loss. Proc. of the U.S. Army Corps of Engineers 6th Remote Sensing Symp. Galveston, Texas. November 1987.
12. Worthy, L.D., **J.M. Hill**, and I.A. Mendelssohn. Influence of Land Cover on Barrier Island Erosion as Determined from Photographic and Digital Imagery. Proc. of the U.S. Army Corps of Engineers 6th Remote Sensing Symposium. Galveston, Texas. November 1987.

***Aquatic Ecology/Water-Quality Assessment:***

1. **Hill, J.M.** and T. M. Dillion. A Unique and Effective Oceanographic Surface Truth Monitoring Program for Correlations with Remotely Sensed Satellite and Aircraft Imagery. Texas Engineering Experiment Station, Texas A&M University. Technical Bulletin. No. 76-2. April 1976.
2. **Hill, J.M.** and K. Stout. Impacts of Land Use on Estuarine Water Quality. Proc. 13th International Symposium on Remote Sensing of Environment. Ann Arbor, Michigan. April 1979.
3. **Hill, J.M.** and D.S. Graham. Using Enhanced Landsat Images for Calibrating Real-Time Estuarine Water-Quality Models. 5th William T. Pecora Memorial Symposium "Satellite Hydrology". AWRA and USGS. Souix Falls, S.D. (Cited in the ASPRS Manual of Remote Sensing). June 1979.
4. Graham, D. S. and **J.M. Hill**. Field Study for Landsat Water Quality Verification. ASCE/ASPRS Specialty Conference on Civil Engineering Applications of Remote Sensing. University of Wisconsin, Madison. August 1980.
5. **Hill**, **J.M.,** D. Nyman, and M.E. Neal. Determination of Rice Irrigation Water Usage in Southwestern Louisiana Using Landsat Data (USGS sponsored). Intern. Symp. on Rainfall-Runoff Modeling. V.J. Singh (Ed.). Mississippi State University, pp. 545-554. (Refereed) May 1981.
6. Nyman, D. and **J.M. Hill**. Remote Sensing of Water Resources for Rice Production (USGS sponsored). Interactive Symp. and Workshop on Applications of Remote Sensing for Rice Production. National Remote Sensing Agency. Hyderabad, India. September 1981.
7. Graham, D.S. and **J.M. Hill**. Appropriate Sampling Procedures for Estuarine and Coastal Zone Water-Quality Measurements. International Conference on Time Series Methods in Hydrosciences. *Time Series Methods in Hydrosciences.* A.H. El-Shaarawi and S.R. Easterby (Eds.). Elsevier Scientific Publishing Company. Chapter 45. pp. 581-599. (Refereed) 1981.
8. **Hill, J.M**. and D.S. Graham. Application of Landsat Imagery for Determination of Circulation and Water Quality in Laguna de Terminos, Mexico and Apalachicola Bay, Florida. Proc. Second Technology Exchange Week. Panama, Republic of Panama. American Society of Photogrammetry and Remote Sensing. January 1981.
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10. **Hill**, **J.M.,** A. Eversull, and D. Nyman. Remote Sensing and Image Processing Applications to Groundwater Assessment (USGS sponsored). Seminar on Groundwater Protection in Louisiana. Louisiana Water Resources Research Institute. Louisiana State University. Baton Rouge, Louisiana. May 1987.

***Environmental Monitoring/Assessment:***

1. **Hill, J.M.** and M.M. Trivedi. Location Verification of Waste Impoundments in Louisiana Using Aerial Imagery. National Conference on Hazardous and Toxic Wastes Management. New Jersey Inst. Tech. June 1980.
2. Trivedi, M.M., **J.M. Hill**, and P. Allain. Assessment of Remotely Sensed Data for the Detection of Impounded Chemical Wastes. Proc. 13th Mid-Atlantic Industrial Conference, Ann Arbor Science (Publisher). Newark, Delaware. June 1981.
3. **Hill**, **J.M.** and E.J. Dantin. Aerial Monitoring of Hazardous Waste Sites in Louisiana. Proc. Conference on Hazardous Wastes and Environmental Emergencies. Hazardous Materials Control Research Inst. Houston, Texas. March 1984.
4. **Hill**, **J.M.** and D.L. Evans. Development of a Permit Geographic Information System for Coastal Zone Management. Proc. 1985 ASPRS-ACSM Convention. Washington, D.C. March 1985.
5. **Hill, J.M**. "GIS Applications for Oil Spill Response and Impact Assessment." Presented at Clean Gulf '91: Oil Spill Prevention, Response, and Technology. Austin, TX. October 1991.
6. Mendelssohn, I.A., M.W. Hester, and **J.M. Hill**. Assessing the Recovery of Coastal Wetlands to Oil Spills. American Petroleum Institute (API) Oil Spill Conference. Tampa, Florida. 1993.

***Natural Hazards:***

1. **Hill, J.M.** and H. Aminian. Landsat Applied to Irrigation and Flood Prediction Modeling. Proc. 1985 ASCE Spring Convention. Denver, Colorado. April 1985.
2. Stetina, F., **J.M. Hill**, and C. Vermillion. NASA's Experience in Disaster Warning and Economic Planning in Developing and Third World Countries. Symp. on Disaster Communication, Public Service Satellite Consortium. Ontario, Canada. April 1989.
3. Stetina, F., **J.M. Hill**, C. Vermillion, and R. Jaske. Program to Develop a Disaster Warning and Economic Planning System in Developing Third World Countries. Ninth Asian Conf. on Remote Sensing. Bangkok, Thailand. November 1989.
4. Zhang, K., S. Ribanszky, **J.M. Hill**, and D. Cotter. Integration of GIS and Remote Sensing for Floodplain Management Support. 1993 ESRI User Conference Proceedings. Palm Springs, California. May 1993.

***Geospatial Technology R&D and Applications:***

1. **Hill**, **J.M.,** P. Babai and C. Vermillion. The Utilization of the APT and ATS Satellite Communication Systems in Coastal Research Programs. Proc. of First Annual Conference on the Present and Future of Coasts. The Coastal Society. November 1975.
2. Harlow, C.A. and **J.M. Hill**. Corps of Engineers Remote Sensing Applications and Image Processing Techniques. COE Remote Sensing Conference, Washington, D.C. November 1979.
3. **Hill, J.M.** State and Federal Remote Sensing Short Courses. 1981 Conference on Remote Sensing Education. NASA, NOAA, and Purdue University. Purdue, Indiana. May 1981.
4. **Hill, J.M.** and C.A. Harlow. Corps of Engineers Remote Sensing Projects at Louisiana State University. U.S. Army Corps of Engineers Remote Sensing Symposium. Nashville, Tennessee. November 1981.
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7. Stetina, F., W. Krabill, and **J.M. Hill**. The Commercialization of NASA's LIDAR Topographic Instrument. Institute of Navigation Conf. GPS-1991. Albuquerque, New Mexico. 1991.
8. **Hill**, **J.M.,** T. Kunz, and F. Stetina. Bathymetric Applications of the NASA Topographic LIDAR System. International Symp. on Spectral Sensing Research: High Resolution Spectral Sensing of the Environment. Maui, Hawaii. November 1992.
9. Stetina, F., D. Friedman, B. Krabill, T. D. Kunz, **J.M. Hill**, D. DiRosa, and J. Schmidt. Progress on the Airborne LIDAR Topographic Mapping System (ALTMS) Sensor. IGARSS '93/URSI Conf. Proceedings. Tokyo, Japan. August 1993.
10. Kunz, T., D. DiRosa, **J.M. Hill**, F. Stetina, and D. S. Friedman. Measurement of Surface Topography by Remote Sensing. The International Society for Optical Engineering’s International Symposium on Optics, Imaging, and Instrumentation. San Diego, California. July 1994.
11. **Hill**, **J.M.,** T. Kunz, and D. DiRosa. High Resolution Topographic Mapping Using a Miniaturized Airborne LIDAR Topographic Mapping System (ALTMS). U.S. Army Corps of Engineers Survey Mapping, Remote Sensing, and GIS Symposium. New Orleans, Louisiana. August 1994.
12. **Hill, J.M., and** S. DeLoach. Advanced 3-D LIDAR Aerial Surveys. 3-D in Transportation. Transportation Research Board Symposium and Workshop. Minneapolis, Minnesota. May 1997.
13. **Hill, J.M.** Commercialization of the Airborne LIDAR Topographic Mapping System. 37th Goddard Memorial Symposium. American Astronautical Society. Greenbelt, Maryland. March 1999.
14. **Hill, J.M.** Airborne LIDAR Topographic Mapping System: Digital Earth Feature/Terrain Data and Applications. GTC Southwest 2000 Government Technology Conference. Austin, Texas. February 2000.
15. **Hill, J.M**., D. Hoffpauir, A. Neyaz. Innovative University Administration GIS Applications: Texas Supreme Court Requests, Academic Program Development, Collaborative Programs, Economic Reach, and Fundraising, Texas GIS Forum, Austin, Texas. October 2016.

***Trade Articles:***

1. **Hill, J.M.**, C. Gloyna, K. Chavez, and D. Young. Operational Visualization Applications for Decision-making at the Texas Department of Transportation Using LIDAR Data. *EOM Earth Observation Magazine.*  November 2000: p. 14-18.
2. **Hill, J.M.**, D. Cotter, R. Dodson, and L.A. Graham. Tropical Storm Allison Bolsters Mapping Efforts. *GEOWorld.* November 2001: 14 (11):38-41.

***Refereed Notes:***

**Hill, J.M.** and D. L. Evans. Bottomland Forest Community Delineation with Color-Infrared Aerial Photographs. *Forest Notes*, Agricultural Experiment Station, Louisiana State University, August 1982.

***Significant Reports:***

***Forest Ecology/Habitat Characterization:***

1. **Hill, J.M.** and D.L. Evans. Remote Sensing of Little River, Cossatot River, and Pond Creek Bottoms in Sevier County, Arkansas. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. 1981.
2. Leyva, R. I., R.J. Henry, L.A. Graham, and **J.M. Hill**. 2002. Use of LIDAR to determine vegetation vertical distribution in areas of potential black-capped vireo habitat in Fort Hood, Texas. In Endangered species monitoring and management at Fort Hood, Texas: 2002 annual report. Fort Hood Project, The Nature Conservancy of Texas, Fort Hood, Texas, USA.

***Coastal and Marine Ecology/Status and Trends:***

1. Harlan, J.C., S.F. El-Sayed, **J.M. Hill**, H. Abdel Reheim, P. Babai, and T. Dillion. Scientific Investigations in the Gulf of Mexico and Caribbean During the 1974-1975 Calypso Cruise. Research Foundation. Texas A&M University. Interim Report. March 1975.
2. El-Sayed, S.F., H. Abdel Reheim, G.A. Fryxel, J.C. Harlan, **J.M. Hill**, P. Babai, and P. Whitney. Scientific Investigations in the Gulf of Mexico and Caribbean During the 1974-1975 Calypso Cruise. Research Foundation. Texas A&M University. Final Report. December 1975.
3. **Hill, J.M.** NASA/Cousteau Bathemetry Study Data Collection. Remote Sensing Center. Texas A&M University. Technical Memorandum-131. March 1976.
4. James, W.P., **J.M. Hill**, and J. Bright. Landsat/Coastal Processes. Remote Sensing Center. Texas A&M University. Interim Report. RSC 3380. November 1976.
5. Dozier, S.M., J.G. Gosselink, C.E. Sasser, and **J.M. Hill**. Wetland Change in Southwestern Barataria Basin, Louisiana, 1945-80. Coastal Ecology Laboratory. Center for Wetland Resources. Louisiana State University. LSU-CEL-83-11. December 1983.
6. **Hill, J.M.**, C.A. Harlow, and L.D. Worthy. Coastal Applications of the Louisiana Environmental Monitoring System (LEMS), Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. April 1984.
7. **Hill, J.M.,** C.A. Harlow, D.L. Evans, and D. DiRosa. Development of a Permit Geographic Information System for Coastal Lafourche Parish, Louisiana. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. May 1984.
8. Braud Jr., D.H., C.A. Harlow, and **J.M. Hill**. Geographic Data Base for Coastal Zone Planning. Submitted to Louisiana Coastal Zone Management Office. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. February 1980.
9. **Hill, J.M.**, D. Evans, P. Turnipseed, and C.A. Harlow. Environmental Monitoring for Coastal Zone Management. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. April 1985.
10. **Hill. J.M.**, D.P. Turnipseed, and D. Evans. Historical Change Assessment of the Cameron/Creole Watershed, Louisiana. Remote Sensing and Image Processing Laboratory. Division of Engineering Research, Louisiana State University. Final Report. RSIP TR.301.85. December 1985.
11. **Hill, J.M.**, D.P. Turnipseed, and D. Evans. Digital Mapping and Land Loss Estimation of Two Proposed Marsh Restoration Projects in Terrebonne and Lafourche Parishes, Louisiana. Remote Sensing and Image Processing Laboratory. Division of Engineering Research, Louisiana State University. RSIP TR.302.86. December 1985.
12. **Hill, J.M.** and D. L. Worthy. A Study to Monitor Land Loss by Soil Type in Lafourche Parish, Louisiana. Submitted to Lafourche Parish Coastal Management Program. Final Technical Report TR-3.01.87. Remote Sensing and Image Processing Laboratory, Louisiana State University. March 1987.
13. H**ill, J.M.,** R.N. Terry, L.D. Worthy, and S.E. Dicks. Historical Land-Cover Change Mapping for Floodplain Management within the Amite River Basin, Louisiana. Submitted to U.S. Army Corps of Engineers, New Orleans District. Final Technical Report TR-3.02.87. Remote Sensing and Image Processing Laboratory, Louisiana State University. July 1987.
14. Mendelssohn, I.A. and **J.M. Hill**. Effects of Oil Spills on Coastal Wetlands and Their Recovery: Year 4, Final Report. OCS Study MMS 93-0045. U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico. OCS Office, New Orleans, LA. 46pp. September 1993.

***Aquatic Ecology/Water-Quality:***

1. **Hill, J.M.** Landsat Assessment of Estuarine Water Quality with Specific Reference to Dredging and Silviculture Activities. U.S. EPA Tech. Series Report. 1979.
2. Dantin, E.J., **J.M. Hill**, C.A. Harlow, R.F. Malone, and M.E. Tittlebaum. Plan of Study for Evaluating the Effects of Lignite Mining in Louisiana on Water Resources. Louisiana Water Resources Research Institute. Louisiana State University. Technical Report No. 8. August 1981.
3. **Hill, J.M.**, A. Eversull, and D. Evans. Landsat Determination of Rice Irrigation Water Usage in Southwestern Louisiana (USGS sponsored). Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. June 1984.
4. Tanchotikul, A. and **J.M. Hill**. Investigation of Physical Condition of Sea and Land Using NOAA-Satellite AVHRR Data In and Around the Gulf of Thailand. Remote Sensing and Image Processing Laboratory. Division of Engineering Research, Louisiana State University. Final Report. TR.301.85. December 1985.

***Environmental Monitoring/Assessment:***

1. **Hill, J.M.** Background on a Proposed Macrophyte Study. Remote Sensing Center. Texas A&M University. Technical Memorandum. RSC-94. 1974.
2. **Hill, J.M.** Verification of Letter Survey and Count of Louisiana Surface Waste Impoundments Using Color Infrared Aerial Photographs. Submitted to Louisiana Geological Survey. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Technical Report. February 1980.
3. Trivedi, M.M. and **J.M. Hill**. Development of Digital Processing Techniques for Remotely Sensed Multispectral Data with Applications to Lignite Mining. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. October 1980.
4. Harlow, C.A., **J.M. Hill**, and M. Trivedi. Photographic Analysis of Waste Disposal Site Conditions. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. 1982.
5. **Hill, J.M.**, D. Burden, and E. Boyle. Monitoring of Louisiana Lignite Test Pits Using 35mm Aerial Photography. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. 1982.
6. **Hill, J.M.,** K. Zhang, and S. Ribansky. Development of a Prototype Environmental Decision Support System for CMTC Hohenfels. Germany. Submitted to the U.S. Army Corps of Engineers, Construction Engineering Research Laboratory, Champaign, Illinois. Houston Advanced Research Center (HARC) Final Technical Report Number 94001. April 1994.

***Natural Hazards:***

1. **Hill, J.M.**, V.P. Singh, and H. Aminian. A computerized Data Base for Hydrologic Modeling of the Amite River Basin, Louisiana. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. January 1984.
2. **Hill, J.M.** and G. Bergeron. Land-Use Mapping for Hurricane Vulnerability Study for the New Orleans Region. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. May 1984.
3. **Hill, J.M.** and G. Bergeron. Topographic Mapping for Hurricane Vulnerability Study for the New Orleans Region. Remote Sensing and Image Processing Laboratory. Division of Engineering Research. Louisiana State University. Final Report. June 1984.
4. Harlow, C. A., **J.M. Hill**, and O.K. Huh. Training and Applications Software for the Nation of Bangladesh Using HRPT/AVHRR Data. Remote Sensing and Image Processing Laboratory. Division of Engineering Research, Louisiana State University. Final Report. December 1985.
5. **Hill, J.M.** and S. Leibowitz. 1972-1985 Land-Use and Floodplain Trend Analysis of the Southern Amite River Basin, Louisiana. Submitted to U.S. Army Corps of Engineers, New Orleans District. Final Technical Report TR-3.01.88. Remote Sensing and Image Processing Laboratory, Louisiana State University. July 1988.
6. **Hill, J.M.**, K. Zhang, and S. Ribanszky. Application of Satellite Imagery and a GIS to Monitor Land Use Change (Development) in Flood Risk Zones. Submitted to the Federal Emergency Management Agency, Washington D.C. Houston Advanced Research Center (HARC), Final Technical Report Number 93.001. February 1993.
7. **Hill**, **J.M.,** B. Patel, and D. Hitchcock. Texas Floods: Data Coordination and Development. Submitted to the Federal Emergency Management Agency, Disaster Field Office, Region VI, Federal Center, Denton, Texas. Contract Number EMW-92-C-3980, Houston Advanced Research Center (HARC), Final Technical Report Number 95001. June 1995.
8. **Hill, J. M.**, J. Alba, L. Graham, and Q. Li. Characterizing, Monitoring, Understanding, and Regulating Rapidly Growing Urban Watersheds. Submitted to Harris County Flood Control District (HCFCD) and National Aeronautics and Space Administration (NASA). Final Technical Report. April 2006.

***Geospatial Technology/R&D and Applications:***

1. **Hill, J.M.** and T.D. Kunz. The Airborne Lidar Topographic Mapping System (ALTMS) Program: Pre-Phase 1; Conceptual System Design and Performance Specifications. Houston Advanced Research Center (HARC) Final Technical Report No. FTRNLP1. December 1991.
2. **Hill, J.M.**, T.D. Kunz, and A.J. Blanchard. Lidar Oil Spill Detection Literature Review. Submitted to The Marine Spill Response Corporation, and The Texas General Land Office, Austin, Texas. Final Technical Report Number TGLOFTR 103092, Texas General Land Office Contract Number 92-178-R. October 1992.
3. **Hill, J.M.**  Accuracy and Application Assessment of the Airborne LIDAR Topographic Mapping System (ALTMS). Submitted to the Federal Emergency Management Agency, Mitigation Office, Washington, D.C. Contract Number EMW-93-K-4308, Houston Advanced Research Center (HARC), Final Technical Report Number 96001. October 1996.
4. **Hill, J.M.** The Airborne LIDAR Topographic Mapping System (ALTMS) Program Phase I: Prototype Design, Construction, and Commercialization. Submitted to NASA Goddard Space Flight Center, Greenbelt, MD. Contract Number NAG5-1981, Houston Advanced Research Center (HARC), Final Summary of Research. June 2001.

***Technical Manual:***

Huh, O.K., S. Leibowitz, D. DiRosa, and **J.M. Hill**. User's Guide to Image Processing and Applications of the NOAA Satellite HRPT/AVHRR Data. Submitted to NASA/Goddard Space Flight Center, Greenbelt, Maryland. January 1986.

***White Paper:***

Uhlir, P, **J. Hill** (et.al.). Global Earth Observation System of Systems (GEOSS) Data Sharing Principles. International Council for Science (ICSU)/Committee for Data on Science and Technology (CODATA). Paris, France. 2009.

***Invited Lectures (Selected examples):***

“Spatial Technologies in Natural Resources”. Invited Guest Lecture. Department of Forestry. Mississippi State University. Starkville, Mississippi. November 2016.

“Innovative Geospatial Breakthroughs: 3D Cities, Law Enforcement, and Health Science”. Keynote Speaker. Hosted by the Houston-Galveston Areas Council and TranStar. Houston, Texas. March 2016.

“GIS Applied to Environmental Crimes Enforcement.” Presented at the Houston-Galveston Area Council (HGAC) sponsored Environmental Enforcement Roundtable: Cool Tools and GIS”. Houston, Texas. October 2012.

“Biodiversity Applications Using Advanced GIS, Remote Sensing, and Visualization Technologies.” Presented at the Joint International Workshop on Biodiversity Informatics: An INDO-US Initiative. Pune, India. December 2004.

“Technology Commercialization Office's Inventor Awards.” Keynote speaker: NASA Goddard Space Flight Center, Greenbelt, MD. October 2000.

"Feature Identification and/or Extraction Applications Development from Large Area Urban LIDAR Derived Data Sets." Presented at the ISPRS Workshop for Mapping Surface Structure and Topography by Airborne and Spaceborne Lasers. La Jolla, CA. November 1999.

"Fisheries Applications of Remote Sensing and Geographic Information Systems." Presented to the United Nations/Food And Agriculture Organization (FAO). Rome, Italy. November 1992.

"Remote Sensing and Geographic Information Systems Applied to Natural Resources Management." Presented to the Pakistan Space and Upper Atmospheric Research Commission (SUPARCO). Karachi, Pakistan. August 1987.

"Application of Remote Sensing and Geographic Information Systems to Rice Production." Presented at the International Rice Research Institute (IRRI). Manila, Philippines. August 1985.

"Environmental Applications of Remote Sensing." Presented at the Remote Sensing Center. Bangkok, Thailand. July 1984.

***Invited Conferences/Workshops/Meetings (Selected examples):***

**Houston Regional GIS Expo 2016**. “Innovative Geospatial Breakthroughs: 3D Cities, Law Enforcement, and Health Science”. Houston, Texas. April 2016

**Sam Houston State University.** Medicine-Humanities-Social Sciences Round Table Symposium. Innovative Public Health Care GIS. Applications Huntsville, Texas. March 2016.

**Texas Council on Environmental Quality (TCEQ) Environmental Trade Fair and Conference**. “GIS Applied to Environmental Crimes Enforcement.” Austin, Texas. April 2013.

**Joint US/INDO (Indian) Bioinformatics Workshop.** Biodiversity Informatics and Applications Using GIS, Remote Sensing, and Visualization Technologies. Pune, India. December 2004.

**Inter-American Biodiversity Information Network (IABIN)** Second Council Meeting and IABIN Invasives Information Network Workshop. Miami. Florida. January 2002.

**National Council for Science and Environment (NCSE)** 2nd Conference on Science, Policy, and the Environment “Sustainable Communities: Science and Solutions” Information Technology Session Co-Chair. Washington, D.C. December 2001.

**U.S. Geological Survey** Gulf of Mexico Integrated Database Workshop. St. Petersburg, Florida. December 2001.

**2000 Kentucky Department of Transportation** **(KYDOT)** Project Development CEC Partnering Conference, Surveying Session invited presentation. “Transportation Applications of LIDAR Data”; Bowling Green, Kentucky. August 2000.

**National Science Foundation (NSF)**, U.S. Geological Survey Biological Resources Division, Morgan, Lewis & Bockius, and the Academy of Natural Sciences; Philadelphia, Pennsylvania. “Forging National Biological Information Infrastructure (NBII) Partnerships” Workshop participant. April 2000.

**U.S. Academy of Sciences, National Resources Council (NRC)**, sponsored trip to Indonesia to discuss the enhancement of spatial information system technologies for environmental applications, with the Indonesian Agency for Technology Assessment and Implementation (BPPT). February 1994.

**MacArthur Foundation** sponsored trip for a planning workshop in preparation for the international conference on the Impacts of Climate Variations and Sustainable Development. Fortaleza, Brazil. September 1991.

**US Agency for International Development (AID)** sponsored trip to International Rice Research Institute (IRRI), Philippines, to investigate the potential for a remote sensing (AVHRR, TM, SPOT) research project associated with water resources and rice production. June 1986.

**National Science Foundation (NSF)** sponsored trip to Hyderabad, India, to make a presentation and act as Chair of Waters Resources Committee for the Interactive Symposium and Workshop on Applications of Remote Sensing for Rice Production. September 1981.

***International Projects/Initiatives:***

**Argentina** - Assessed the need to apply RS/GIS technologies associated with the environmental monitoring/economic development initiatives of the national oil and gas industry. 1991-1997.

**Australia** – Developed and wrote environmental and natural resource planning proposals for implementation in southeast Asian countries with Woodward-Clyde, Inc.

**Bahamas** – Assisted in the study and filming of the “Whitings” and “Spiny Lobsters” TV

documentaries from Jacque Cousteau’s RV Calypso. 1975.

**Bangladesh** – Conducted training and developed environmental applications of Advanced Very

High Resolution Radiometer (AVHRR) and Landsat satellite data. 1986-2002.

**Belize –** Assisted in the study and filming of the “Mating of the Groupers” TV documentary

from Jacque Cousteau’s RV Calypso. 1974.

**Botswana** – Studied and/or assessed conservation issues, partnership development, and

existing biological, ecological, and supportive geospatial data for incorporation into the African World Data Center for Biodiversity and Human Health. 2010.

**Brazil** - Analyzed the applications of RS/GIS technologies to make informed policy decisions associated with the drought stress (climate change), other potential environmental (i.e., loss of biodiversity) impacts, and sustainable development. 1991-2000.

**China** - Instructor, United Nations/FAO sponsored workshop entitled "Remote Sensing and GIS Technology Applied to Planning for Aquaculture Development", 1987. Entered into a Memorandum of Understanding (MOU) with the Institute of Remote Sensing Applications (IRSA) through the Chinese Academy of Sciences that emphasizes RS/GIS applications for natural resources and environmental assessments, 1994. Initiated discussions with the Chinese Academy of Sciences and World Data Centers regarding the potential for collaborative biodiversity and ecological data sharing initiatives. 2006-2008.

**Costa Rica** - Participated in GBIF biological informatics meetings and a biological, ecological, and conservation management focused field investigation. Assist in the development and implementation of the collaborative health science/care research initiatives between Sam Houston State University (SHSU) and UNIBE. 2014-Present.

**Denmark –** U.S. Delegate and GIS Application to Biodiversity Working Group Member, Global Biodiversity Information Facility (GBIF). 2002-2004. Head of Delegation for the WDCBE (as Associate Participant) in GBIF. 2005-2010.

**Germany –** Developed and implemented remote sensing and GIS technologies applied to conservation management at United States Army Garrison (USAG) Hohenfels Training Area. 1993-1994.

**Guam** - Assessed, with NASA/GSFC, the needs and capabilities of various university programs to develop and implement integrated remote sensing/GIS facilities (primary emphasis was on coastal and marine resource assessments using AVHRR and SeaWiFS data). 1992-1995.

**Hong Kong** – Assisted, with NASA/GSFC, the needs and capabilities of various university programs to develop and implement integrated remote sensing/GIS facilities (primary emphasis was on coastal and marine resource assessments using satellite derived AVHRR and SeaWiFS data). 1992-1995.

**India** – Investigated, with NASA/GSFC, existing capabilities and potential for environmental and natural resource monitoring and management related remote sensing projects (1981). Participated in joint the U.S./INDO (India) biodiversity and associated biological informaticsinitiatives. 2004-2008.

**Indonesia** - Entered into a Memorandum of Understanding (MOU) with the Indonesian Agency for Assessment and Application of Technology (BPPT) to focus on the transfer of RS/GIS technologies applied to biodiversity and natural resource management (including oil spill and emergency response planning). 1988-Present.

**Italy** – Assisted in the planning, development, and implementation of a United Nations/FAO sponsored workshop entitled "Remote Sensing and GIS Technology Applied to Planning for Aquaculture Development", 1987.

**Japan** - Participated in GBIF biological informatics meetings and a biological, ecological, and conservation management focused field trip. Assisted in conducting a commercial LIDAR data acquisition project over major Japanese cities.

**Malaysia** – Investigated, with NASA/GSFC and Woodward-Clyde, Inc., existing capabilities and potential for environmental and natural resource monitoring and management related remote sensing projects. 1981-1999.

**Mexico** – Assisted in the study and filming of the “Sleeping Sharks of the Yucatan” TV documentary and water quality monitoring and modeling, 1974. Assessed biodiversity and water resources along the U.S.-Mexico border. 1996-2003.

**Nepal** – Investigated, with NASA/GSFC, existing capabilities and potential for environmental and natural resource monitoring and management related remote sensing projects. 1981-1999.

**New Zealand** – Studied and/or assessed conservation issues, partnership development, and

existing biological, ecological, and supportive geospatial data for incorporation into the World Data Center for Biodiversity and Ecology. Approx. 2008.

**Pakistan** – Investigated, with NASA/GSFC, existing capabilities and potential for environmental and natural resource monitoring and management related remote sensing projects. 1981-1999.

**Panama** – Assisted in the development of a remote sensing and geospatial data and information

management system to monitor land usechanges in the Panama Canal watershed (associated

with the payment of sustainable forestry preservation services/incentives to local land

owners). 2008-2009.

**Paraguay** – Initiated a joint initiative between the World Data Center for Biodiversity and Ecology (WDCBE)and Guyra Paraguay (an NGO) to integrate biodiversity and remotely sensed data to help in the decision process, at the national level, to select new protected areas in Paraguay. 2004.

**Peru** – Participated in GBIF biological informatics meetings and a biological, ecological, and conservation management focused field trip in the upper reaches of the Amazon.

**Philippines** – Investigated, with NASA/GSFC and the International Rice Research Institute (IRRI), existing capabilities and potential for environmental, natural resource, and agricultural monitoring and management related remote sensing projects. 1981-1999.

**South Africa** – US component Project Manager, through the World Data Center for Biodiversity and Ecology, for the development and implementation of the African World Data Center for Biodiversity and Human Health (the first WDC in all of Africa). The lead partner organization in Africa was the South African National Research Foundation (NRF). 2008-2010.

**Switzerland** – Discussed and assessed U.S. Army Corps of Engineers related GRASS/GIS data development needs with the United Nations Global Resources Information Data Base (GRID) Program and the United Nation's Disaster Relief Organization (UNDRO) to plan a disaster preparedness project for Indonesia, (1991-1992). Also assessed potential collaboration regarding airborne LIDAR application(s). 2000.

**Tanzania** – Studied and/or assessed conservation issues, partnership development, and existing biological, ecological, and supportive geospatial data for incorporation into the African World Data Center for Biodiversity and Human Health. 2008-2010.

**Thailand** – Developed environmental applications of satellite derived AVHRR data to rice production and coastal processes, environmental, and water resources (RS/GIS), assessed potential for biological informatics technology transfer, and developed a methodology to map coastal land cover and geospatial data base for oil spill response planning. Conducted site suitability assessments, with NASA/GSFC, across Thailand to locate rain gages to calibrate satellite derived Tropical Rainfall Measurement Mission (TRMM) data. 1981-2003.

**United Kingdom** – Initiated and participated in joint global biological informatics and protected area data base integration and planning meetings with the International Union for Conservation of Nature (IUCN). 2001.

**Venezuela** - Assessed the need to apply RS/GIS technologies associated with the environmental monitoring/economic development initiatives of the national oil and gas industry (PDVSA). 1991-1997.

**Zimbabwe** – Studied and/or assessed conservation issues, partnership development, and existing biological, ecological, and supportive geospatial data for incorporation into the African World Data Center for Biodiversity and Human Health. 2008.