The U. S. Department of Transportation (USDOT) in collaboration with the National Aeronautics and Space Administration (NASA) initiated the Commercial Remote Sensing and Spatial Information Technology Application to Transportation Program in 1999. This joint effort is the first program of its type that focuses on transportation applications of remote sensing technologies. The far-reaching Research and Development strategy involves unique and cost-effective applications of remote sensing and spatial information technologies for achieving transportation goals in partnership with service providers, industry, transportation agencies and universities. The long-term research and development and training of transportation professional workforce are carried out through four university consortia consisting of 14 collaborating institutions. Education and outreach to national and state agencies are important aspects of the program strategy for enabling the applications of emerging products and results from the program to migrate into transportation practice.

The GICAP 2002 Workshop is a part of the Technical Outreach efforts of the Mississippi State University-led National Consortium on Remote Sensing in Transportation-Environmental Assessment (NCRST-E). The goal of the workshop is to explore how geospatial information of various types can be appropriately used to impact important issues in transportation corridor assessment and planning. The workshop will include invited presentations from researchers, project managers, geospatial data providers, environmental analysts, and decision makers with a goal of distilling common issues and challenges in corridor assessment and planning and matching those issues and challenges with relevant geospatial information and geospatial data processing and analysis algorithms. As a core component of the effort, a workshop summary proceedings document will be developed titled as "Geospatial Data and Information for Transportation Planning and Assessment."

A significant focus of the workshop will be on streamlining processes related to transportation corridor assessment and planning. Transportation projects can be in preliminary planning and environmental assessment phases for many years while lengthy data collection activities, environmental analyses, assessment of alternatives, assessment of constraints and preliminary design activities take place. It is possible that the timely collection of high resolution remotely sensed data of various types can be used for many early stage processes in the transportation project life cycle. This workshop will seek to address many of these and other issues related to Geospatial Information for Corridor Assessment and Planning. The presentations, panel discussions, and resultant summary recommendations from the workshop will provide important guidance to the formulation of a collaborative research and development agenda for NCRST-E’s future research efforts in corridor assessment and planning.
GICAP 2002 Workshop Program

Wednesday, August 7, 2002

Opening Ceremony and Reception – 7:00 PM at Memphis Radisson

Greetings and Welcome – Joint Program Overview, Department of Transportation and National Aeronautics and Space Administration

K. Thirumalai, Ph.D., Chief Engineer, Research and Special Programs Administration, US Department of Transportation

David Ekern, Associate Director of Engineering & Technical Services, AASHTO

Roger King, Ph.D. NCRST-E Consortium Director, MSU

Thursday, August 8, 2002

Continental Breakfast, Thursday 7:30 – 8:15 AM

Opening Remarks 8:15 – 8:30 AM: K. Thirumalai, Ph.D., Chief Engineer, Research and Special Programs Administration, US DOT

Main Session 1: High Priority and Special System Corridors, Thursday 8:30-10:00 AM

Beginning with the ISTEA, many corridors have been designated in Federal transportation legislation as high priority corridors on the National Highway System (NHS). Other important corridors for special transportation systems, rail, transmission lines, or pipelines have likewise been identified or designated in Federal legislation. How the planning and assessment of these corridors can be aided by use of remote sensing data and geospatial technologies is central to transportation research directions.

Speakers

- Speaker: Fred Skaer, FHWA
- Speaker: T.R. Lakshmanan, BU
- Speaker: Joanne Irene Gabrynowicz, UM

Panelists: Synthesize and React (5 minutes each – what did you hear?)

- Panelist: Gary Williams, Maine DOT
- Panelist: Chris Huffman, Kansas DOT
- Panelist: James A. Bryson, TN DOT

Audience Discussion
Mid-Morning Break, Thursday 10:00 – 10:30 AM

Main Session 2: NAFTA Corridor (I-69), Thursday 10:30 – 12:00 AM

Corridors 18 and 20 combine to form the Interstate 69 Corridor from Texas to Michigan. Planning and assessment of selected segments of I-69 are underway or planned and use of remote sensing data and geospatial technologies have been involved in selected processes. This session will present ongoing and completed work with emphasis on how remote sensing data and geospatial technologies have been and may further be used in the processes.

Speakers
- Speaker: David Davis, TN DOT
- Speaker: Fawn Thompson, FHWA, SRC
- Speaker: Cory Berish, Chief, Planning and Analysis Branch EPA Region 4

Panelists: Synthesize and React (5 minutes each – what did you hear?)
- Panelist: Ed Sheffner, NASA
- Panelist: Lonnie Hearne, SimWright, Inc.
- Panelist: Mike Bishop, USACE ERDC

Audience Discussion

Thursday Lunch 12:00 - 1:00

Main Session 3: Mississippi I-10 Corridor and CSX Rail Relocation EIS, Thursday 1:15 – 3:00

Significant interest has been focused on the proposed relocation of the CSX railroad from its current location along the Mississippi coast. The CSX railroad currently runs through the center of high growth areas along the shore and the proposed move would provide a rail route running east-west along a more inland route, potentially farther north than the I-10 corridor. A recent project has been awarded to conduct the environmental assessment for the CSX relocation project with the requirement that the assessment make broad use of remote sensing and geospatial technologies. The effort is strongly supported by the US DOT and NASA and is intended to help bring these technologies into mainstream practice.

Speakers
- Speaker: K. Thirumalai, Ph.D., Chief Engineer, Research and Special Programs Administration, US DOT
- Speakers: Cecil Vick and Claiborne Barnwell
- Speaker: DMJM Harris
- Speaker: Chuck Gullakson, Assistant Chief Engineer for Public Improvements
Panelists: Synthesize and React (5 minutes each – what did you hear?)
  • Panelist: Dan Smith, USACE ERDC
  • Panelist: Rock Taber, US EPA, Region 4
  • Panelist: Brett Thomassie, DigitalGlobe

Audience Discussion

Mid-Afternoon Break, Thursday 3:00 – 3:30 PM

Thursday Afternoon Break-Out Sessions, 3:30 – 5:00

Break-Out Session 1 Technical and Operational Challenges and Opportunities
  • Session Leader – Chris Johanssen, Purdue University
  • Facilitator: TBN

Break-Out Session 2 Institutional and Policy Challenges and Opportunities
  • Session Leader – Joanne Irene Gabrynowicz, Director, National Remote Sensing
    and Space Law Center, University of Mississippi School of Law
  • Facilitator: TBN

Break-Out Session 3 Economic Challenges and Opportunities
  • Session Leader – Bill Anderson, BU
  • Facilitator: TBN

Thursday Wrap-Up, 5:00 – 5:45

Session leaders from the previous breakout will each speak for about 10 minutes
summarizing the results of their sessions. A synopsis of the day’s event and an overview
of events for Friday will be provided by Roger King.
Friday, August 9, 2002

Continental Breakfast, 7:30 – 8:10

Main Session 4: Corridor Working Session, Friday 8:15 – 10:00

A series of presentations will focus attention on several corridors, issues that are of primary concern in the corridors, and opportunities to use remote sensing and geospatial technologies to address corridor-specific issues. In this session the scope of corridors is expanded to include modes such as transmission lines and pipelines.

- Priority Corridor 7: U.S. 72 from Memphis, Tennessee to Atlanta, Georgia
- Priority Corridor 19: U.S. 395 from Reno, Nevada to the Canadian border at Laurier, Washington.
- Alaska Natural Gas Pipeline Corridor
- TVA Transmission Line Corridors

Speakers
- Speaker: Elizabeth Lanzer WA DOT
- Speaker: Milton Wiltse, State Geologist, Alaska
- Speaker: Roger Sparry, TVA

Panelists: Synthesize and React (5 minutes each – what did you hear?)
- Panelist: DeWayne Hellums, Transportation Planner, North Central Alabama Regional Council of Governments
- Panelist: Roy Teal, Manager Geographic Information and Engineering, TVA
- Panelist: Jeffrey Young, Executive Director, Sales, Global Products & Services, Space Imaging

Audience Discussion

Mid-Morning Break, Friday 10:00 – 10:30 AM
Main Session 5: Future Directions in Data and Application Areas,  
Friday 10:30 – 12:00

New and developing areas in remote sensing and geospatial technologies include high resolution image data, LIDAR elevation data, IF SAR elevation data, hyperspectral image data, decision support systems, solution optimization systems, and many others. The collection of appropriate remotely sensed data early in project life cycles can provide a rich source of information for many planning and assessment processes in transportation corridor projects. The challenges to the effective use of information include rapidly evolving specifications, complexity of data acquisition, data standards and interoperability, data and information version control, distribution and archiving of data, and many others.

Speakers
- Speaker: Myra Bambacus, Program Manager, Geographic Interoperability Office, NASA
- Speaker: George Gross, Spencer B. Gross, Inc.
- Speaker: David Sullivan, FHWA, SRC
- Dan Widner, VA DOT

Panelists: Synthesize and React (5 minutes each – what did you hear?)
- Panelist: Rick Church, UCSB
- Panelist: Karen Schuckman, EarthData Technologies
- Panelist: Fred Mazzella, Iowa DOT

Audience Discussion

Friday Lunch, 12:00 – 1:00
Friday Afternoon Breakout Sessions 1:15 – 2:30

Technology Outreach Direction
- Session Leader: Aviva Brecher, DOT Volpe Center
- Facilitator: TBN

Educational/Training Outreach Directions
- Session Leader: Joel Morrison, NCRST-F Director
- Facilitator: TBN

Research and Development Directions
- Session Leader: Tom Palmerlee, TRB
- Facilitator: TBN

Friday Afternoon Wrap-Up: 2:30 – 3:15

Session leaders from the previous breakout will each speak for about 10 minutes summarizing the results of their sessions. A final synopsis will be provided by David Ekern, and Roger King will adjourn the session with closing comments about products and deliverables that attendees can expect to see resulting from the workshop.