

INTRODUCTION



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Hawai`i Spatial Data Infrastructure Implementation:

The I-Team Geospatial Information Initiative (I-Team Initiative) is the next phase of efforts to build a National Spatial Data Infrastructure (NSDI). The I-Team Geospatial Information Initiative is a joint project of the Federal Geographic Data Committee (FGDC), Federal Office of Management and Budget (OMB), the Council for Excellence in Government, Urban Logic, TIE, National States Geographic Information Council (NSGIC), National Association of Counties (NACo), and other strategic partners. As part of the effort to build a National Spatial Data Infrastructure (NSDI), the I-Team Initiative addresses the institutional and financial barriers to development of the NSDI at federal, state and local levels. It aims to create a coherent set of institutional and financial incentives to make it easier for all levels of government and the private sector to collaborate in the building of the next generation of framework data. By aligning participant needs and resources, the I-Team Initiative will help all levels of government and the private sector to save money, migrate from existing legacy systems, make better use of existing resources, and build the business case for additional public and private resources.¹

The Hawai`i Geographic Information Coordinating Council (HIGICC) provides the regional component to the national Initiative. HIGICC has endorsed the OMB's I-Team concept for assessing the status of the FGDC Framework Data Themes. HIGICC established an I-Team committee at the November 7, 2002 Data Products Workshop. The goal of Hawai`i's I-Team Report is to devise a plan for development and long-term maintenance for each theme. This report represents the first phase of that effort.

The Hawai`i Geographic Information Coordinating Council (HIGICC) is an organization providing statewide GIS coordination. It is a "non-profit body consisting of members of Hawai`i's GIS community. Our goal is to provide coordination of GIS activities among a wide range of GIS users in order to avoid duplication of effort, promote data sharing, and maintain data standards throughout the state."

The mission of HIGICC is "to bring together and continue to build the geographic community into a cohesive, recognized coordinating body that facilitates the use, development, sharing, and management of geographic data and communicates the value of geographic information to citizens and decision-makers. In the State of Hawai`i, GIS is recognized and effectively used as an invaluable tool by the government, business and the

¹ <http://www.fgdc.gov/I-Team/library/background/TwoParaITeam.doc>

citizens for understanding and managing our aina (environment). The Hawai'i GICC is a shared mechanism for the diverse community to identify, explore, and solve problems with geospatial information.”²

The Hawai'i GIS community has a successful history that makes the I-Team process possible. A 1997 grant through the Framework Demonstration Project Program focused on development of a cadastral framework layer for the Island of Molokai to address issues not faced on the mainland. A Competitive Cooperative Agreements Program (CCAP) grant led to the Metadata workshop series, which then resulted in an FGDC metadata node being managed by the Office of State Planning. Kathy Covert from FGDC attended the April 1998 GISMAP conference to assist the Hawai'i GIS community in formalizing the Geographic Information Coordinating Council. In 2001, Ron Matzner of the FGDC's I-Team office made a presentation to HIGICC on the goals of the I-Team process. The attendees at the HIGICC Data Products workshop in November 2002 discussed the priority data themes and the formation of an I-Team for Hawai'i. ³

Overview of the Hawai'i I-Plan

The Hawai'i GIS community has endorsed the I-Team concept and process championed by the Office of Management and Budget ([OMB I-Team](#))⁴, the Federal Geographic Data Committee ([FGDC](#))⁵ and other strategic partners⁶ for assessing the status of FGDC's seven Framework data themes. The Geographic Information Professionals throughout the State have identified nine additional data themes as important to the I-Team effort.

This Implementation Plan (I-Plan) identifies the organization structure of the Implementation Team (I-Team) for Hawai'i, defines a process for prioritizing data themes that will contribute to building the NSDI, and summarizes sixteen data themes that will be included in the prioritization process. The goal is to devise a plan for the development, distribution, and long-term maintenance of each theme.

Jurisdiction

This plan addresses issues and information needs statewide for Hawai'i and reflects the collaboration of federal, state, county and local agencies, academia, the private and not-for-profit sectors.

² <http://www.higicc.org/about.asp>

³ <http://www.state.hi.us/dbedt/gis/gicc.htm>

⁴ http://www.whitehouse.gov/omb/circulars/a016/a016_rev.html

⁵ <http://www.fgdc.gov>

⁶ <http://www.fgdc.gov/I-Team/strategic.html>

Approach

Framework Layers. The I-Team has defined 16 priority data themes. These include the seven framework themes defined by the FGDC. An additional nine layers were defined at the 2002 Data Products Workshop. A listing of these data layers is below.

NSDI Framework Data:

1. Geodetic Control
2. Elevation/Bathymetry
3. Imagery

4. Hydrography
5. Transportation
6. Cadastral
7. Governmental Units

Hawai'i Priority Data:

8. Utilities
9. Structures
10. Physical Environment and Natural Hazards
11. Cultural Features
12. Terrestrial Layers
13. Marine Layers
14. Scanned Maps
15. Data Distribution/Publishing
16. Cross-cutting issues

Chapters 1 through 7 are the key chapters for the NSDI Framework layers in our I-Plan. These layers are the most widely used across all disciplines and among all levels of government.

Chapters 8 through 14 are more local to Hawai'i, and while not critical to the NSDI Framework, they are important layers locally.

Chapter 15 covers metadata issues and how the data is made available, either for download or through web services.

Chapter 16 covers those issues that crosscut two or more chapters. For example, addressing is part of chapters 5 and 6. Hawaiian names are part of many chapters.

Process

A subcommittee work group of HIGICC's I-Team was formed to address each identified layer, with a group leader. Each work group represents agencies or organizations having mandated responsibility and/or programmatic need for the data. The work group is responsible for the completion of the following for the data layers associated with their respective theme:

- Detailed inventory of the existing data and providers
- Identifying existing standards
- Develop a strategy for completing the data layer
- Develop cost estimates and time requirements for completion of the data layer
- Assign responsibility for creation, integration, maintenance and distribution of the data layer

The I-Team data layers and work group chairs are as follows.

Planning Work Groups:

Document Editing and Consistency

Geodetic Control

Elevation/Bathymetry

Imagery

Hydrography

Transportation

Cadastral

Governmental Units

Utilities

Structures

Physical Environment and Natural

Hazards

Cultural Features

Terrestrial Layers

Marine Layers

Scanned Maps

Data Distribution/Publishing

Cross-Cutting Issues

Planning Work Group Chairs:

Susan Bevacqua (NOAA/ National Marine Sanctuaries) and Ronald Salz (US Fish and Wildlife Service)

Ed Carlson (NOAA/National Geodetic Survey)

Henry Wolter (USGS National Mapping Div)

Rhett Rebold (Pacific Disaster Center)

Pat Shade (USDA/NRCS)

Goro Sulijoadikusumo (Hawai'i DOT)

Jon Hodge (City and County of Honolulu)

Craig Tasaka (State of Hawai'i - DBEDT/OP/GIS)

Ken Schmidt (CCHON) and Royce Jones (ESRI)

Harley Pennington

Rod Low (ESRI) and Eric Yamashita

Melia Lane-Kamahele (National Park Service)

Shannon McElvaney (Hawai'i Heritage Program)

Darcee Killpack (NOAA/Pacific Services Center)

Craig Clouet (Kamehameha Schools)

Joan Esposito (State of Hawai'i - DBEDT/OP/GIS)

Royce Jones (ESRI)

The first template document was sent to the work group chairs in February 2003. Their submissions were combined into the first draft of the Hawai'i I-Plan. The first draft was distributed for comment to the HIGICC and members of HIGICC and the greater Hawai'i GIS community on April 18, 2003. Comments and final edits were completed and the Final Draft Hawai'i I-Plan distributed on June 9, 2003. The document was reviewed at the HIGICC General Meeting on June 12, 2003. This led to modifications found in this document. New chapters may be needed to account for overlooked data sets, such as demographics, language, safety or disaster response planning. More input from colleagues and organizations must be addressed to make the I-Plan even more inclusive. And development of a Hawai'i geospatial strategic plan, that includes the findings in this document, should be a top priority. This document, will have a positive and long-term impact on spatial data development, integration and availability throughout the State of Hawai'i. All contributors should feel proud of the work we have accomplished together.