



Developing National Geospatial Data Standards

presented by:

Tim Haithcoat

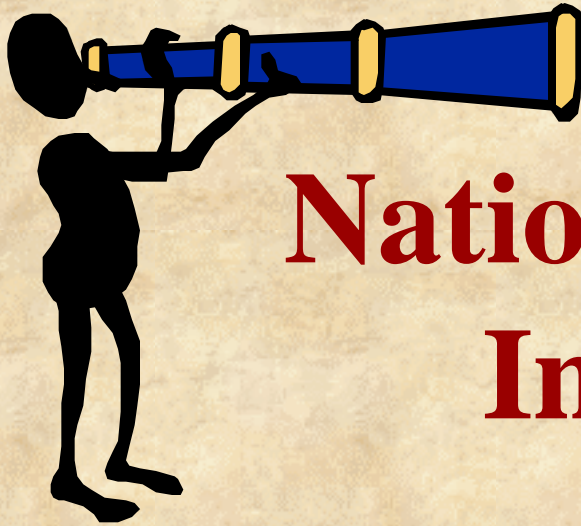
**University of Missouri
Columbia**



adapted from materials from:

Frank Beck

**Federal Geographic Data Committee
U.S. Geological Survey
Reston, Virginia**



National Spatial Data Infrastructure VISION

*Easier access to better
geospatial data*

NSDI Activities

- ✓ Clearinghouse
- ✓ Framework
- ✓ Partnerships
- ✓ Standards

Standards Developed to Influence the NSDI

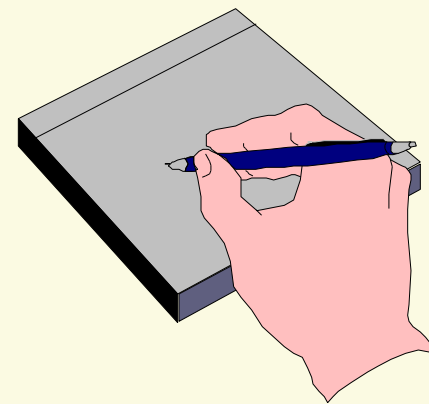
- ✓ Help find/discover data (METADATA)
- ✓ Help transfer data (SDTS)
- ✓ Make data more useful
- ✓ Multi- versus - single purpose data collection guidelines (CONTENT STANDARDS)

Federal Geographic Data Committee (FGDC) in Support of NSDI

1990 Office of Management and Budget
(OMB) Circular A-16

1993 National Performance Review

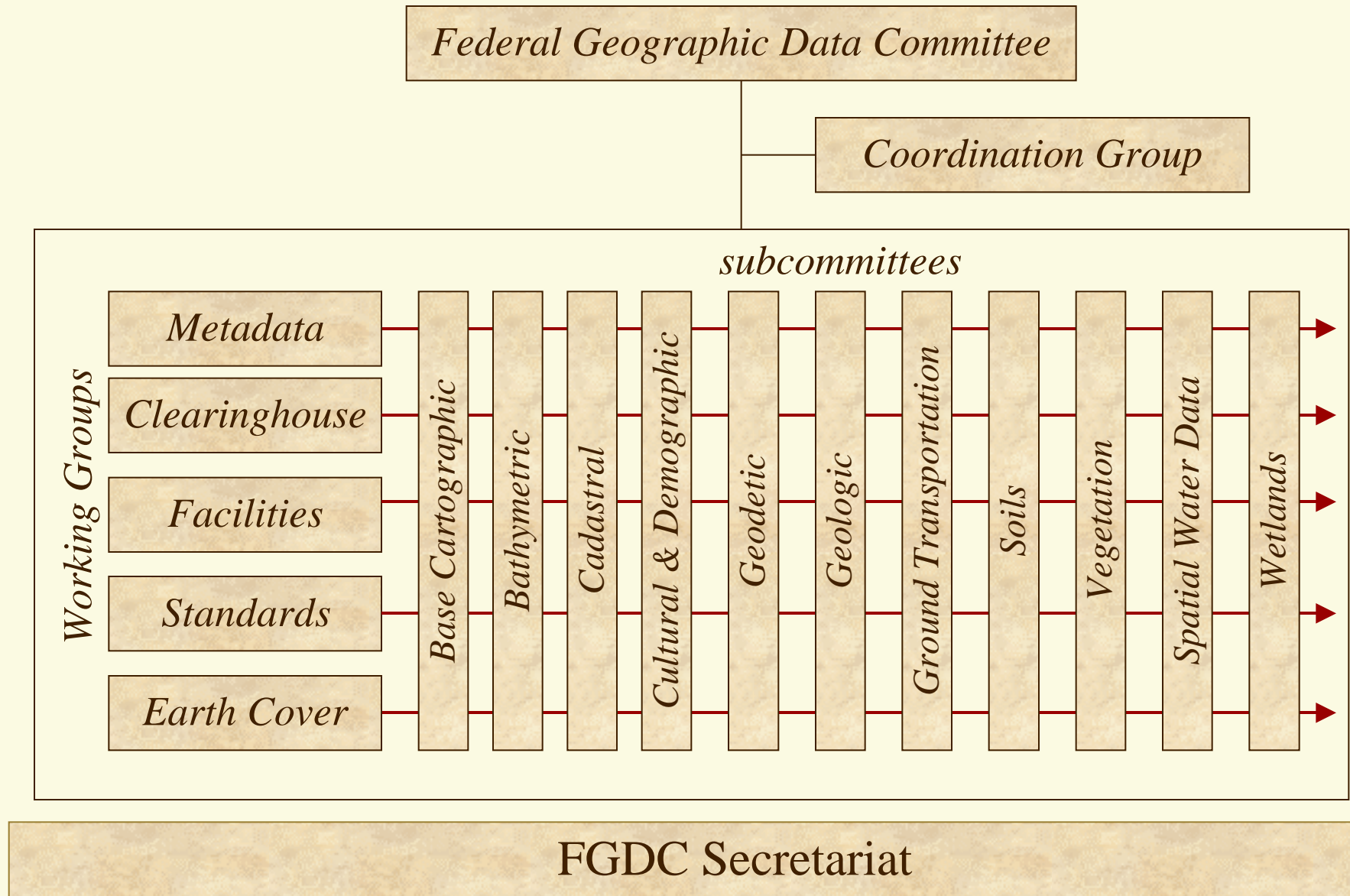
1993 Executive Order #12906 signed by
President Clinton



Federal Geographic Data Committee

- ✓ Develop National Digital Spatial Information Resource
- ✓ Coordinate geospatial data themes
- ✓ Establish and implement standards
- ✓ Set goals and schedules

Current FGDC Structure



Subcommittees and Working Groups of the FDGDC

- ✓ Base Cartographic
- ✓ Bathymetric
- ✓ Cadastral
- ✓ Cultural and Demographic
- ✓ Geodetic Control
- ✓ Geologic
- ✓ Ground Transportation
- ✓ Soils
- ✓ Vegetation
- ✓ Spatial Water Data
- ✓ Wetlands
- ✓ Biological Data
- ✓ Standards Clearinghouse
- ✓ Metadata
- ✓ Facilities
- ✓ Earth Cover

National Geospatial Data Clearinghouse: What is it?

- ✓ A referral service to discover who has what information from a distributed set of data producers and users
- ✓ Key Components:
 - Data searchable documentation (metadata)
 - Networking (internet) and client/server architecture
 - Serving, searching and accessing softwares

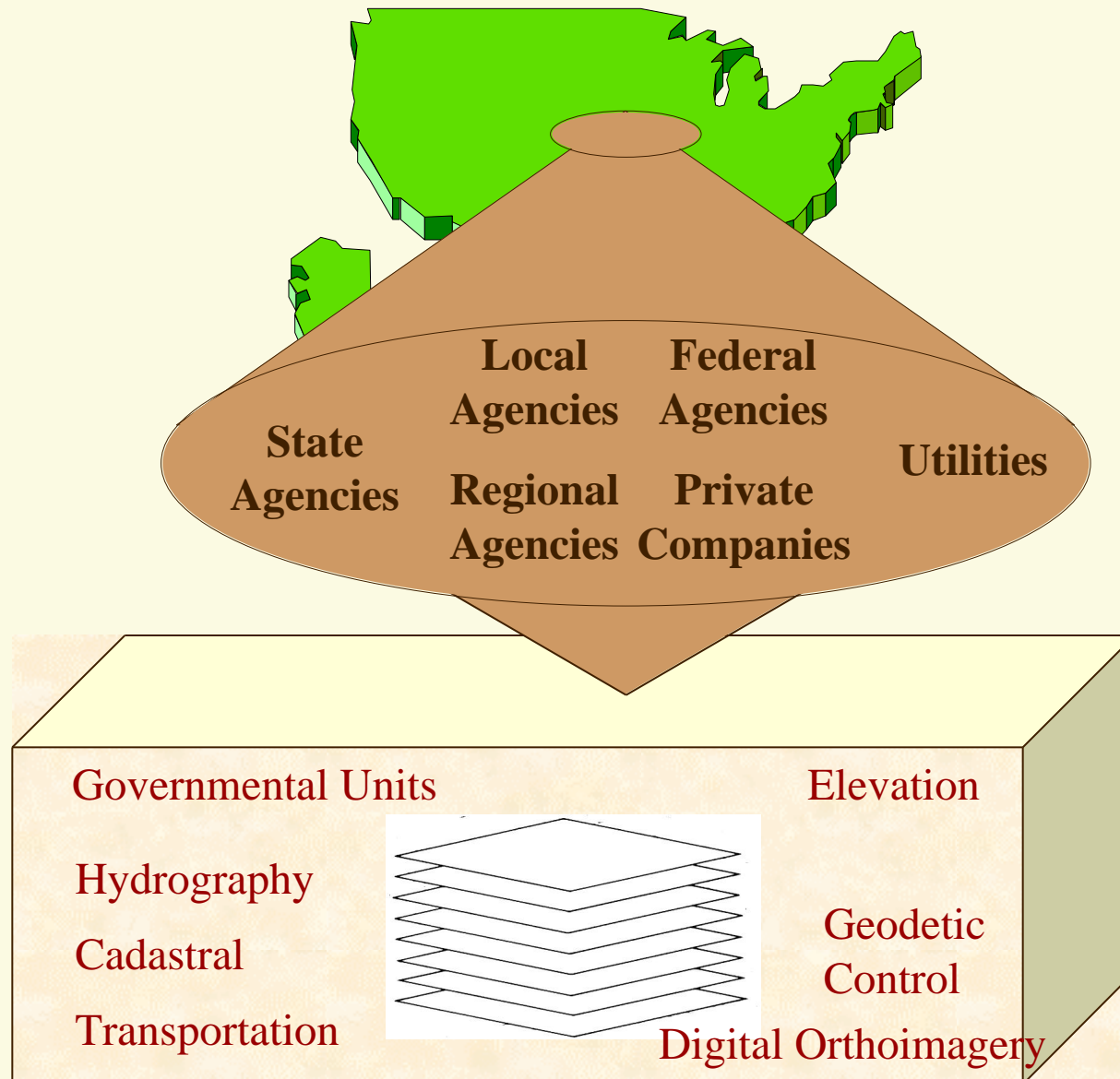
Metadata

What is it? - describes the content, quality, condition, and other characteristics of data.

Major uses of metadata:

- Organize and maintain an organization's investment in data.
- Provide information to data catalogs and clearinghouses.
- Provide information to aid data transfer & use.

Framework Approach



Developing Partnerships

- ✓ State Geographic Information Councils
- ✓ Cooperative Agreements
- ✓ Federal Partnership Database
- ✓ Clearinghouse



Standards

- ✓ Enable data sharing
- ✓ Promote consistency
- ✓ But.....which ones?



*What base
geographic
knowledge about
the resource or
theme is of
interest?*



How is the resource best represented spatially?



*How is
information
collected about
the resource to
be linked or
spatially
represented?*



*What standards
can be created to
promote data
sharing for this
resource or
theme?*



Basic Principles of FGDC Standards

- ✓ Consensus development process
- ✓ Voluntary, except for federal agencies
- ✓ Integrated with each other to the extent feasible and possible
- ✓ Technology independent
- ✓ Evolutionary in practice
- ✓ Publicly available (no copyright)

FGDC Standards Process

(modeled after ANSI and ISO)

- ✓ Proposal to Standards Working Group
- ✓ Project Administration approach outlined
- ✓ Draft document developed
- ✓ Review (internal and national)
- ✓ Final adoption by FGDC

What does the FGDC Standards Working Group do?

- ✓ Reviews and approves proposals
- ✓ Provides guidance on policies and procedures
- ✓ Facilitates coordination among subcommittees
- ✓ Makes recommendations to the Coordination Group



Recent Activities of the Standards Working Group

- ✓ FGDC/ANSI Standards Process Coordination
- ✓ FGDC/ISO Standards Review & Coordination
- ✓ FGDC Standards Development

PROGRESS (July 1998)

- ✓ SDTS (FGDC/ANSI)
- ✓ Metadata (FGDC)
- ✓ Cadastral (FGDC)
- ✓ Wetlands (FGDC)
- ✓ Vegetation (FGDC)
- ✓ Soils (FGDC)
- ✓ Accuracy, Parts 1,2,3 (FGDC)
- ✓ In work: elevation, biological data, address content, utilities, and others

Questions

- ✓ *What other standards?*
- ✓ *What developmental approaches?*
- ✓ *Is a standard a standard if no one uses it?*
- ✓ *How do we promote the use of standards?*
- ✓ *Is a standard a standard if it changes?*



Techniques to Promote the Use of Standards

- ✓ Formal endorsement
(e.g. FIPS, ANSI, ISO)
- ✓ Vendor tools
- ✓ Education and Workshops



Where to get information

- ✓ Standards Working Group Homepage -
<http://www.fgdc.gov/Standards>
 - ✓ Meeting announcements
 - ✓ Membership
 - ✓ Reference model
 - ✓ List/status of FGDC standards
- ✓ Email: fgdc@usgs.gov

FGDC Homepage

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