# INTRODUCTION

to the

# National Information Display Laboratory

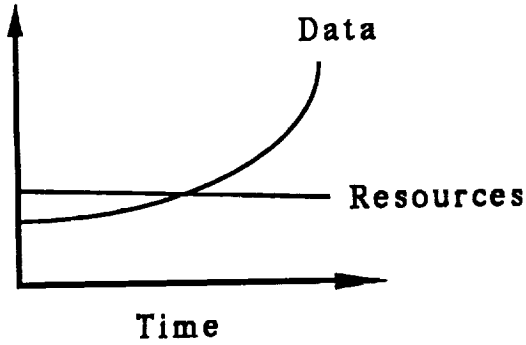
Dr. Curtis R. Carlson
Director, NIDL

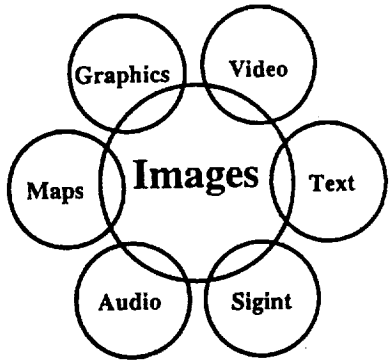


E10

## Government Information Needs

*... rapidly exploiting and disseminating all critical information ...*



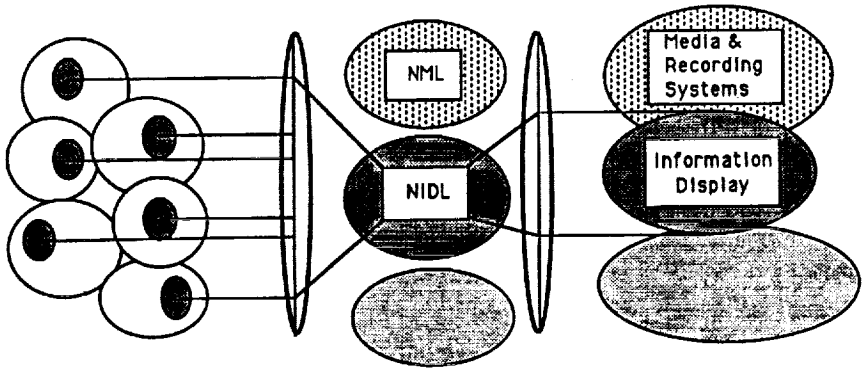




- Rapidly changing roles and responsibilities
- Increasingly diverse users
- Increasing data types

E13

# The Center of Excellence Concept

*... focusing the resources of Industry onto User's needs ...*




**Government Users**

- Users & Developers of Technology
  - Program Offices
  - R&D Groups
- Core technologies, essential to success of program

**Centers of Excellence**

- Focus
- Leverage
- Standards
- Continuity
- User Support

**Industry**

- Commercial Manufacturers
- R&D Centers
- System Developers
- Universities

H3

# National Lab Business Strategy

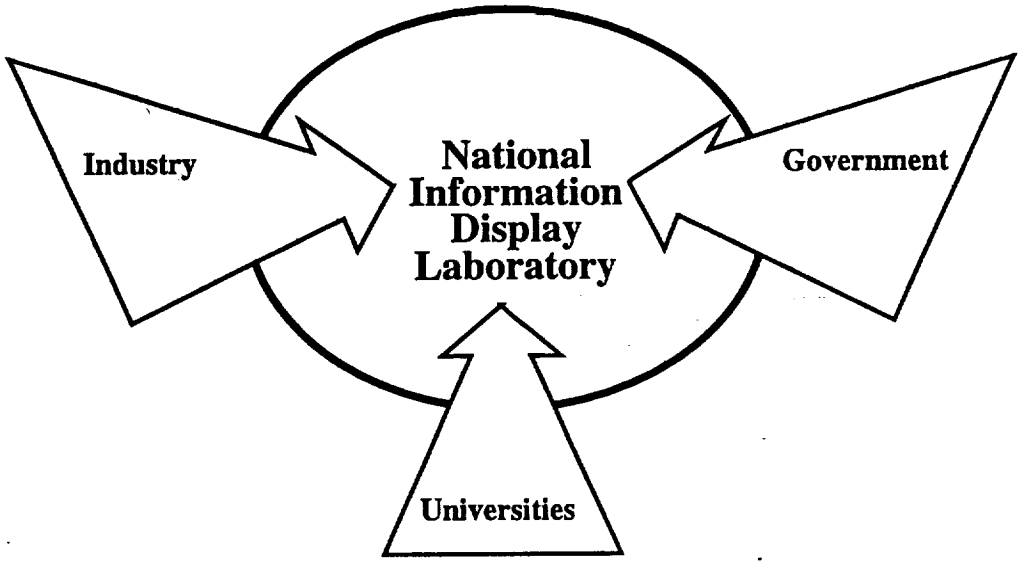
*... developing programs with overwhelming value ...*

- **Work with users to determine needs**
- **Begin "seed" program**
- **Seek partners with world leading capabilities**
  - **Government, Industry and Universities**
- **Develop programs that provide:**
  - **User satisfaction**
  - **Revolutionary Improvements**
  - **Path to commercialization**

H4

# NIDL "Distributed" Laboratory

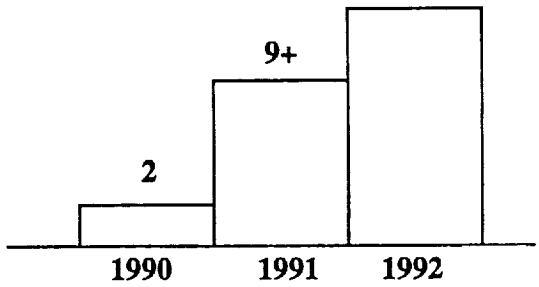
*... combining resources of Government, Industry, and Academia ...*

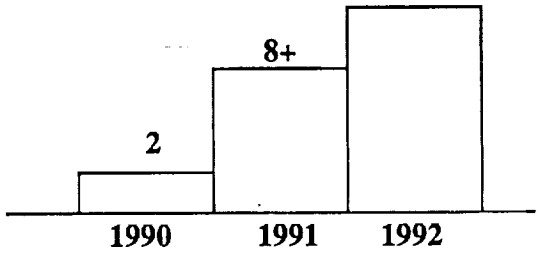



E15

# Partners and Users

- Government Partners and Users
  - Air Force
  - Navy OP 94
  - USGS
  - JNIDS
  - OSTP
  - NEL
- Industry & Academia Partners
  - Princeton University
  - MIT
  - Texas Tech
  - Planar
  - RCA/TCE
  - DTI -AVP/MegaScan

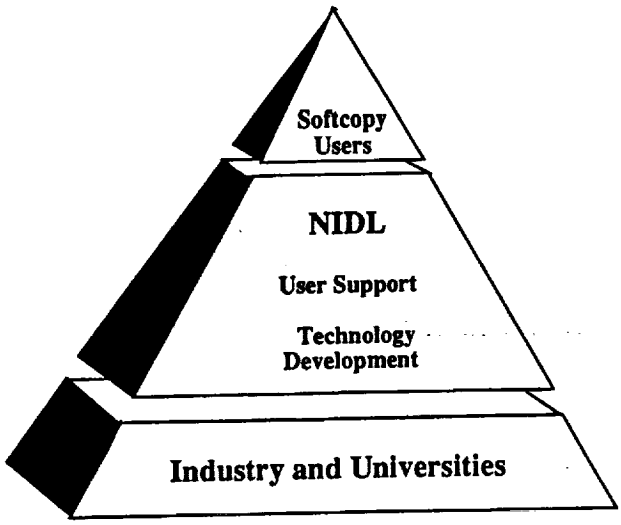



E16

# National Information Display Laboratory

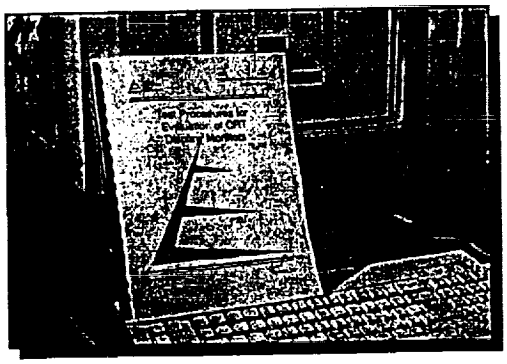
*... a Center of Excellence for Softcopy technology ...*



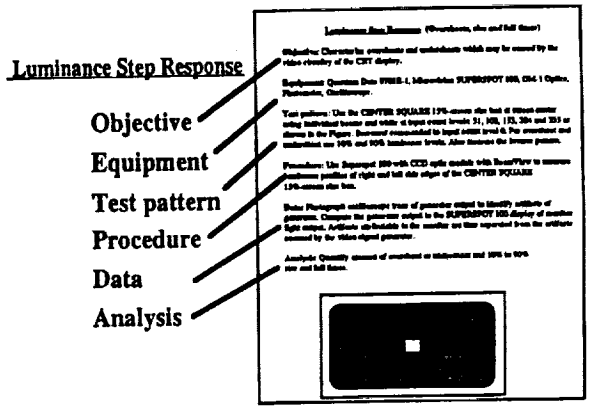

E17

# Standards

*... establishing industry display and imaging standards that represent the government's viewpoint ...*



Measurement Procedures




E39

# NIDL Organization

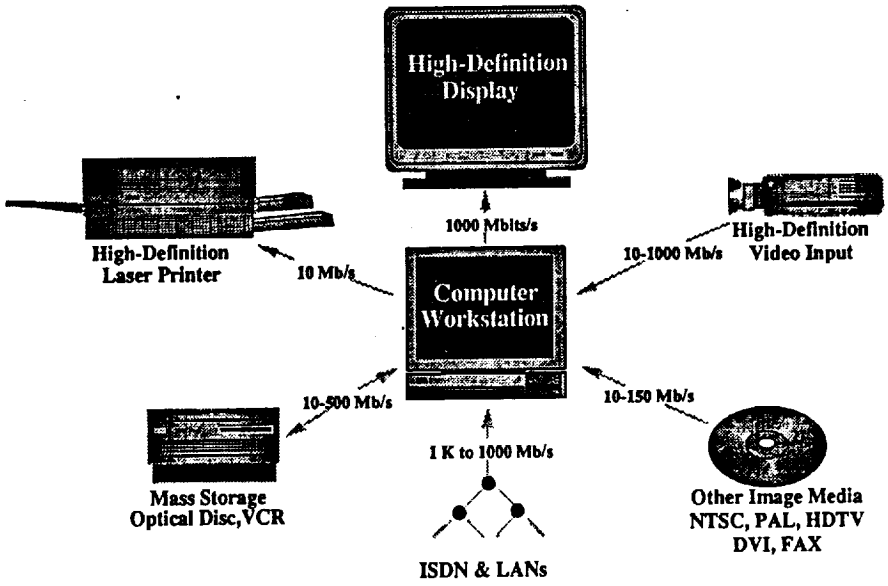
**NIDL**
**Dr. Curtis R. Carlson**
Executive Director

| Display Technology | Softcopy Tools & Technology | Partners and Associates Program |
|---|---|---|
| Dr. Arthur H. Firester, Director | Dr. Norman D. Winarsky, Director | |
| • Advanced Displays | • Image & Signal Processing | • Government Organizations |
| • Display Modeling | • Man-Machine Interface | • Commercial Organizations |
| • User Support | • User Support | • Universities |
| | | • Research Institutions |

E18

# Office Environment of the Late 1990's

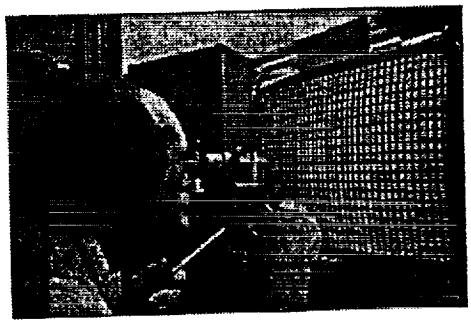
*... the office will heavily exploit HDTV technology ...*

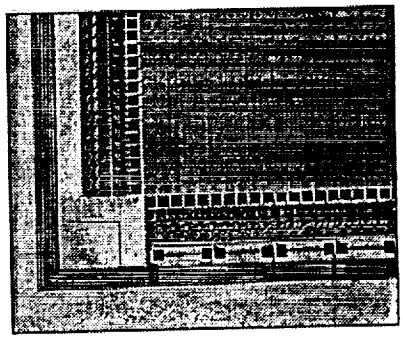



E22

# Display Technologies

*... large, uniform, high-resolution, bright displays ...*

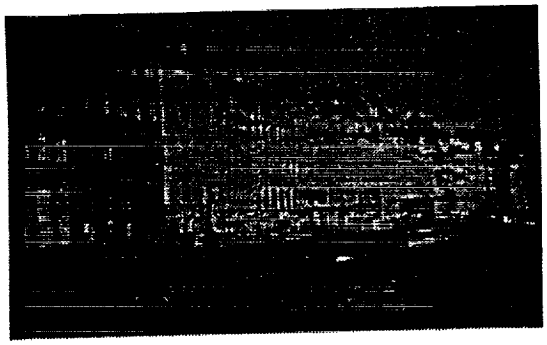




E23

# HDTV

*... the key is extremely high-performance image compression ...*



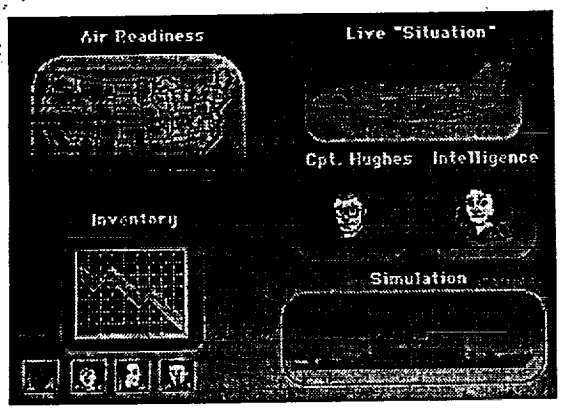
HDTV

NTSC

E24

# High-Resolution Video Workstations

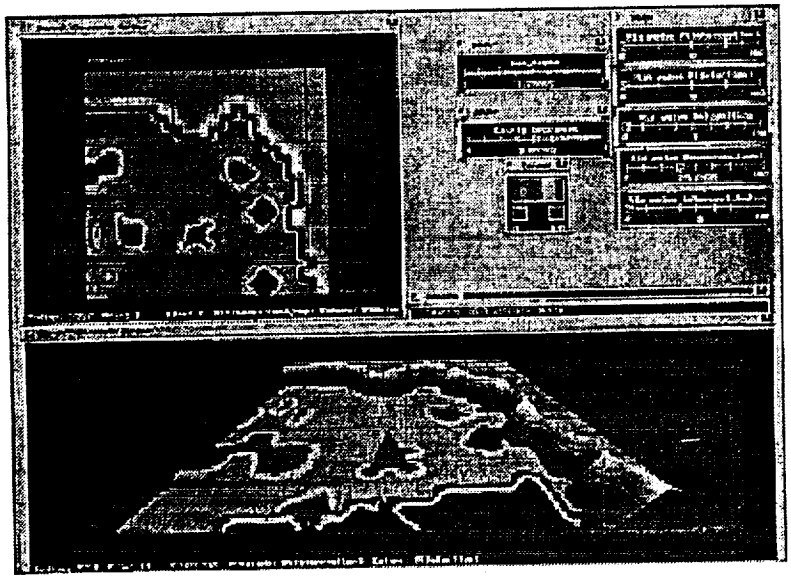
*... will have multiple video and graphics windows ...*




E25

# Data Visualization

*... presenting data to users in their visual language ...*

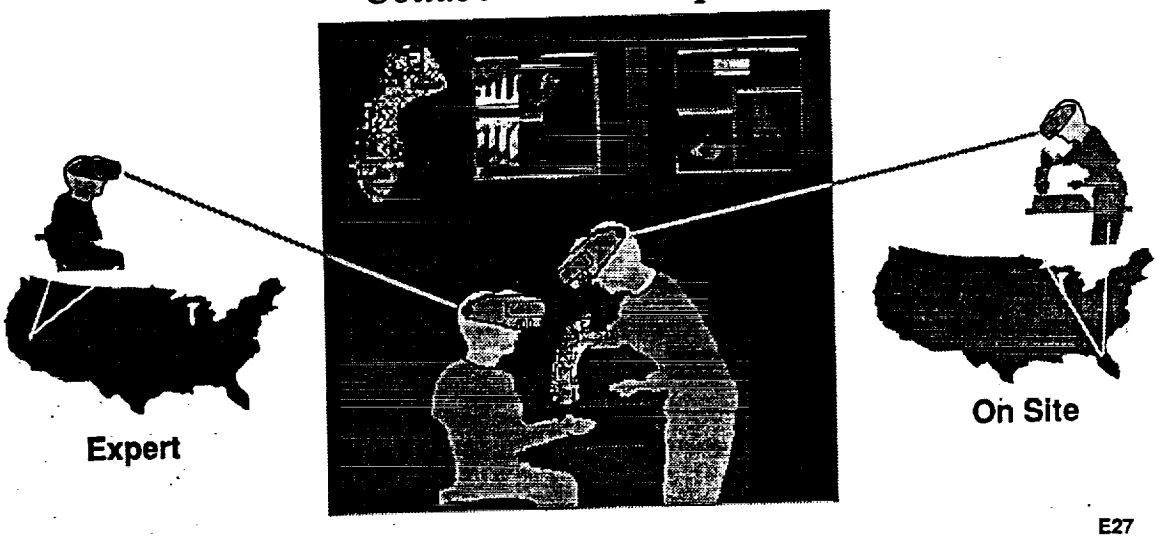


E26

# Virtual Reality

*... creating real-time, high-resolution, 3D synthetic environments ...*

*Collaborative Workplace*

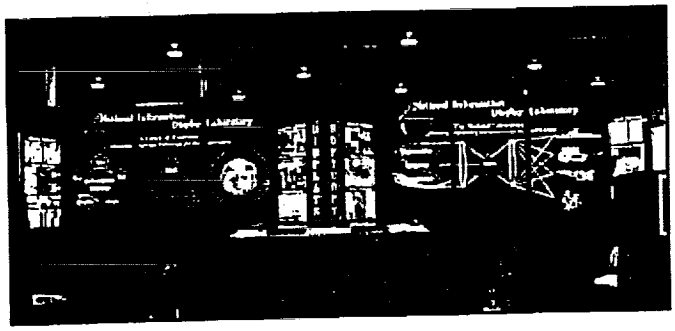



E27

# Communications

*... reaching out to both the Government and Industry ...*

- Government
  - IPWG
  - NASA
  - JNIDS
  - NEL
  - DNI
  - DARPA
  - ORD
  - OSTP
  - FAA
  - IRDC
  - DCA staff
  - Navy Op 94
- Industry
  - Int'l. Display Conference Keynote
  - SID Plenary Presentation
  - SID Standards activities
  - SID Display Booth
  - JTEC
  - Many other individual companies



E42


# Conclusions

*... a new model for Government/Industry collaboration ...*

- NIDL is a Center of Excellence in Softcopy Technology
- Goal: develop bold new way to satisfy the needs of Government Users through both:
  - Aggressive User support
  - Advanced technology
- Focus key softcopy and display technology on the interface to Users, to make them much more productive
- NIDL is a "Distributed Laboratory" with world-leading partners
- For additional information, call NIDL at 609-951-0150

E43