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## **NASA's Commercial Communications Technology Program**

Presented to:

The Workshop on Satellite Networks:  
Architectures, Applications, and  
Technologies

Cleveland, Ohio

June 2-4, 1998

by

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## **Vision**



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**“Changing the way  
NASA and the Nation  
communicate through space”**



## Commercial Satellite Communications Program



- **Mission**

- **Enable NASA's Use of Commercial Satellites for All Its Operational Needs In and From Space**

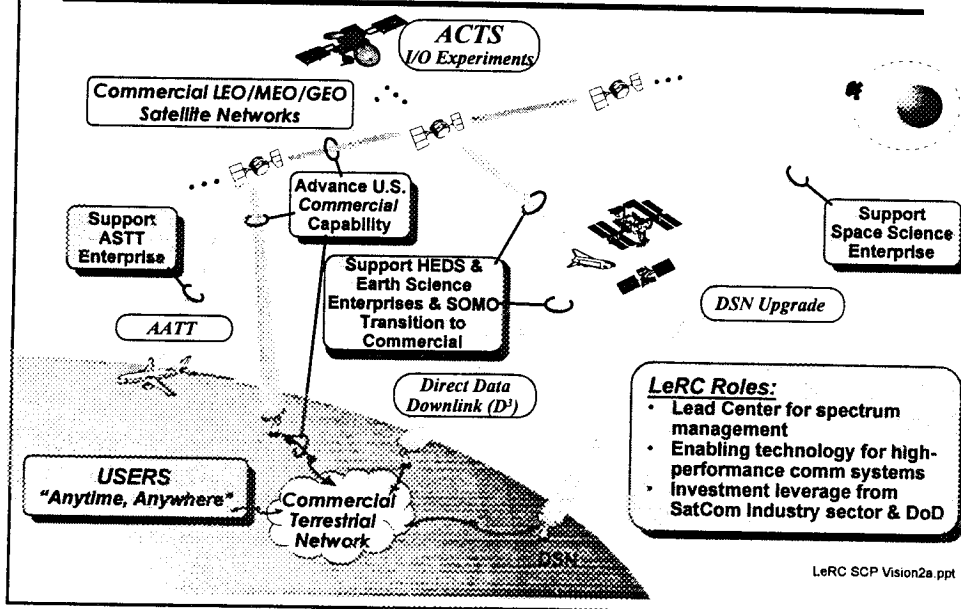
- Ensure Availability of Commercial Assets
    - Reduce NASA Operations Costs

- **Promote Communications Satellites for the Maximum Benefit to Society through:**

- Increased Economic Security
    - Cost Effective Services
    - Universal Availability
    - Capable, Reliable Communications for All Government Users



## LeRC Space Communications Program

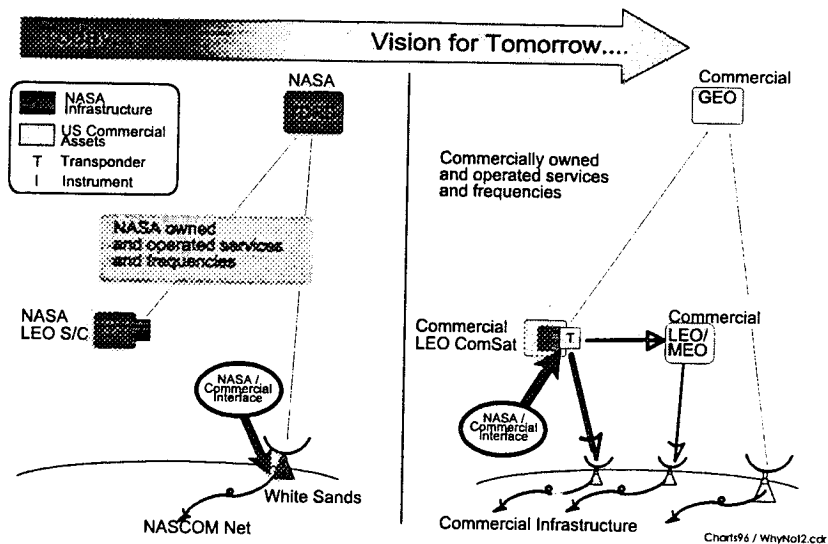




## NASA Transition to Commercial Assets



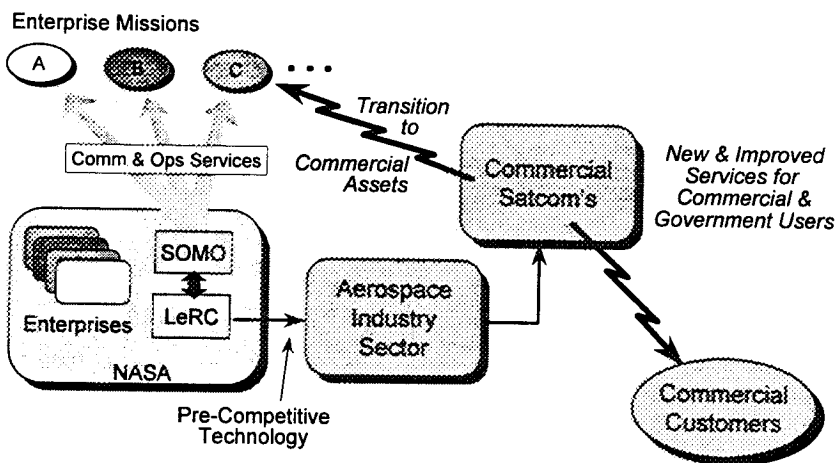
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## NASA-Industry Relationship



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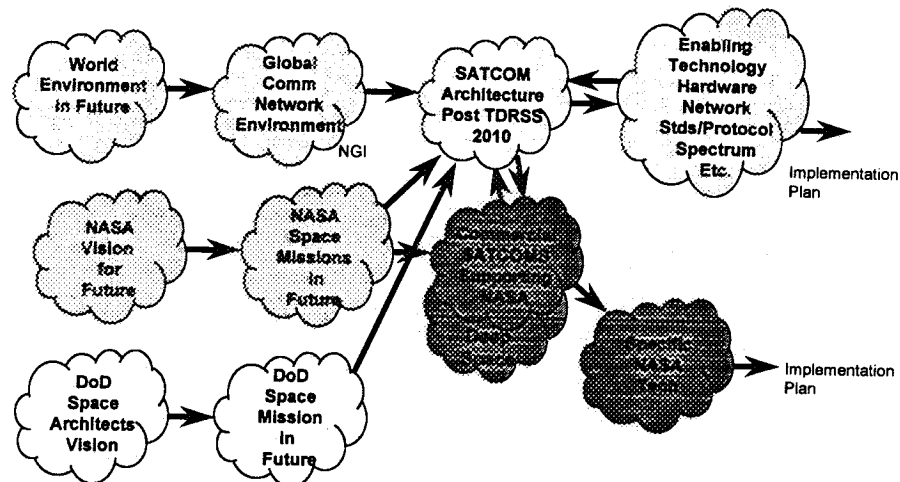




## Components of Strategic Plan



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### *Government Led Programs Elements and Objectives for Satellites in Global Information Infrastructure*



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#### A. Coordinate/Integrate Government Program (NASA, DoD, etc.)

- Use government "Space Technology Alliance" - AF Research Lab, NASA, NRO, DDR&E, BMDO, ONR
- Coordinate with "Satellite Alliance" for industry/academic/government interaction and program development.
- Government led workshops



***Government Led Programs Elements and Objectives for  
Satellites in Global Information Infrastructure***



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**B. Achieve Seamless Interoperable  
Satellite & Terrestrial Networks**

- Implement via architectures, standards, & protocols.
- Develop and adopt commercial standards in close cooperation with industry (e.g. Telecommunications Industry Association)
- Perform experiments & validation testing (GIBN, ACTS, etc.)
- Develop next generation architectures with goal of global interoperability.



***Government Led Programs Elements and Objectives for  
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**C. Establish Program to Enhance  
Satcom Professional, Technical Workforce**

- Meet needs of Communications Satellite Industry.
- Involve Universities, Govt. Research Labs, and Industry.
- Integrate with Precompetitive Technology Program

Program Development Discussion - Tue. June 2  
O'Hare Room, 3:30pm  
Ms. Joanne Poe, Moderator



***Government Led Programs Elements and Objectives for  
Satellites in Global Information Infrastructure***



**D. Precompetitive Technology Development**

- Vision - Global Information Infrastructure
- Target - Next generation space-based networks.
- Integrated commercial and government customers
- Goal - Prioritized program plan
- Participants - Academia/Government/Industry

Program Development Discussion - Wed. June 3  
O'Hare Room, 3:30pm  
Dr. Charles Raquet, Moderator



***Government Led Programs Elements and Objectives for  
Satellites in Global Information Infrastructure***



**E. Effective Utilization of  
Spectrum & Orbit Assets**

- Create commercial satellite conducive national/international regulatory environment.
- Advance government/non-government shared spectrum
- Share satellite/wireless terrestrial communications services