

3D Visualization Developments at Physical Optics Corporation

IARPA Synthetic Holographic Observation (SHO)
Program Proposers' Day

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Physical Optics Corporation

- Founded in 1985
- Private - Employee Owned Company
- 235 employees - 65 Ph.D.'s
- \$50M in annual sales
- 100,000 sq.ft. facilities, 5 buildings
- 91 issued patents - others pending
- Small Business - Woman Owned
- ISO9001:2000 + AS9100B + AS9110
- Over 40 technologies - over \$150M in development
- 7 Licensing Agreements
- 6 Spin - Off Companies, 2 Ventures
- Security Clearance - Secret
- Strategic Advisory Board
- \$200M in products shipped
- Leading small system integrator



FAERITO® Digital Flight Data Recorder



WPIC™ - Wireless Personal Information Carrier



WEARNET® - Wearable Personal Area Network



SITA - Flexible Display & Interface



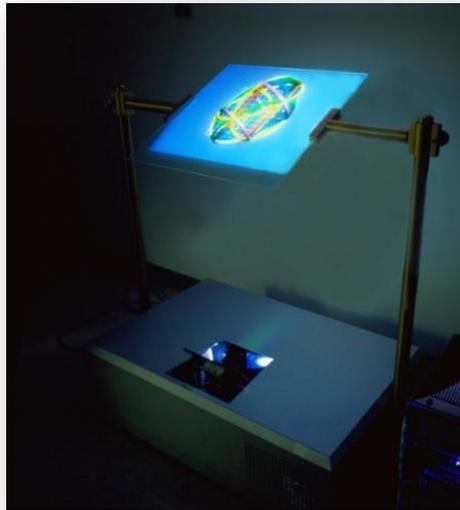
LEXID® - Handheld X-ray Imaging



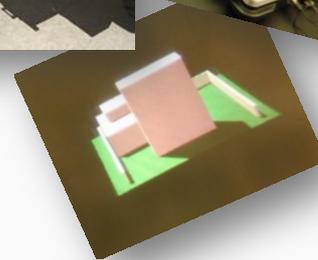
OMNINETWORK™ 360 EZOOM



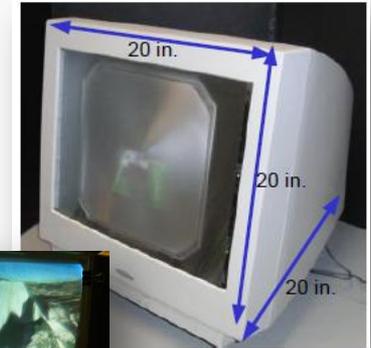
MYEYE™ - POC's Real Time 3D Displays



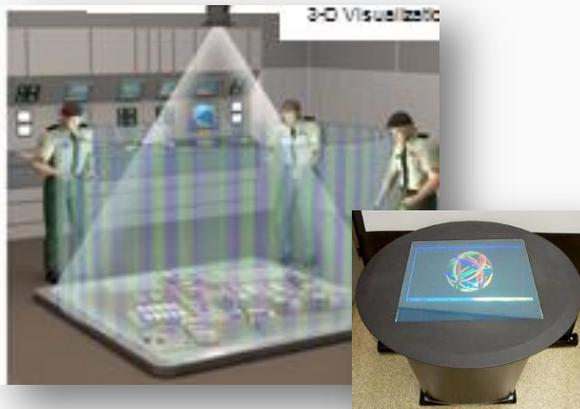
Autostereoscopic



*Portable Synthetic Holographic
3D Displays*



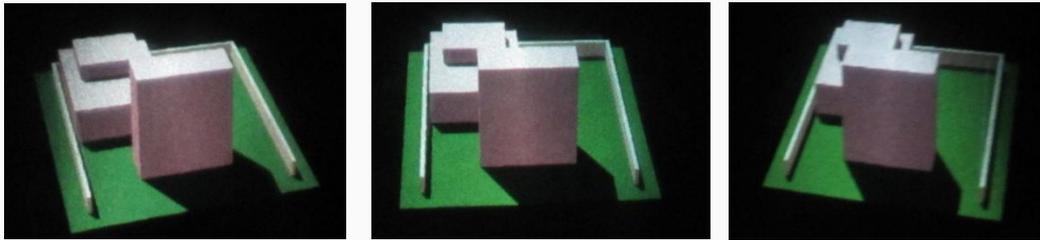
*Wall-Size Tilable
3D Displays*



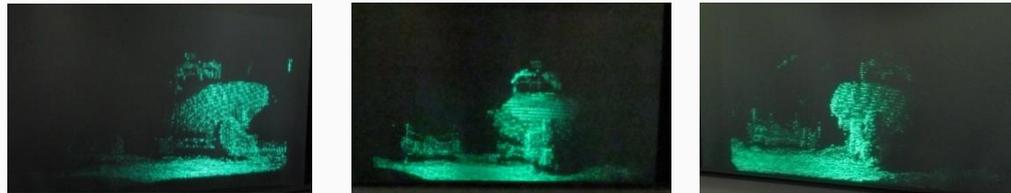
360 Multiscopic

- **Realistic 3-D imagery** viewable from multiple concurrent perspectives
- **Holographic projection optics** for virtual volumetric imagery
- **Wide FOV** with continuous 3D parallax
- **No goggles / no head-tracker** required
- **Full color, high definition, video rate 3D image/data streaming**
- **3D human interface** for real-time interaction
- **Low-profile, portable, and standalone system**

3D Images from POC's Holographic Displays



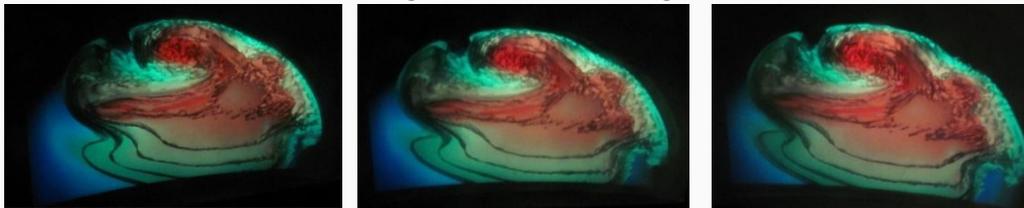
Computer Generated 3D Images



LIDAR 3D Images



Google Earth Images

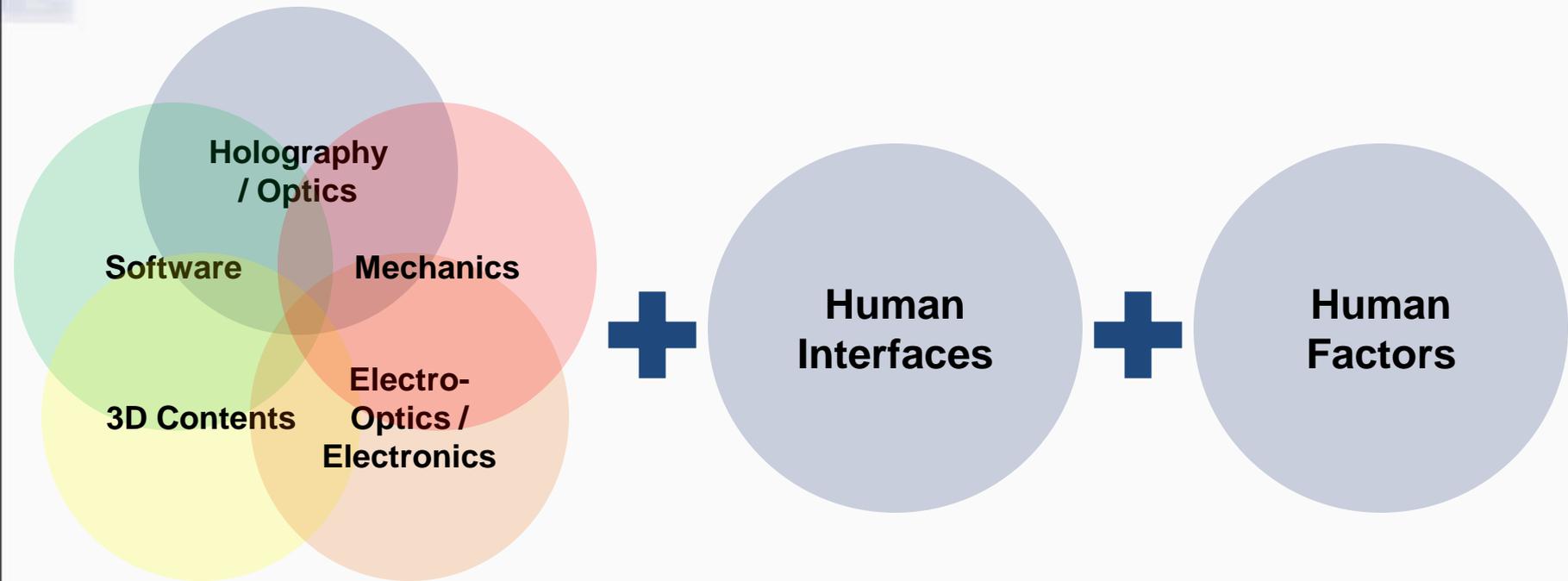


Vorticity Images



And live 3D video streaming...

POC for IARPA SHO Program



A true challenge of system integration:

Technologies are ready. Teaming is critical. Timing is right.