

The logo for Microsoft ESP, featuring the word "Microsoft" in a white sans-serif font, followed by a registered trademark symbol (®), and the letters "ESP" in a larger, bold, white sans-serif font, followed by a trademark symbol (™). The logo is centered horizontally in the upper half of the slide.

Microsoft® ESP™

A New Era in Visual Simulation

David Boker

Senior Director

Market Trends

- ▶ Worldwide M&S forecast: \$18 billion
- ▶ Cumulative growth rate: 9.6% annually
- ▶ Key Trends:
 - Challenge to train new employees and ensure retained learning
 - Most new hires to military, government work force are under 35
 - Defense spend to increase in use of PC based COTS simulation solutions

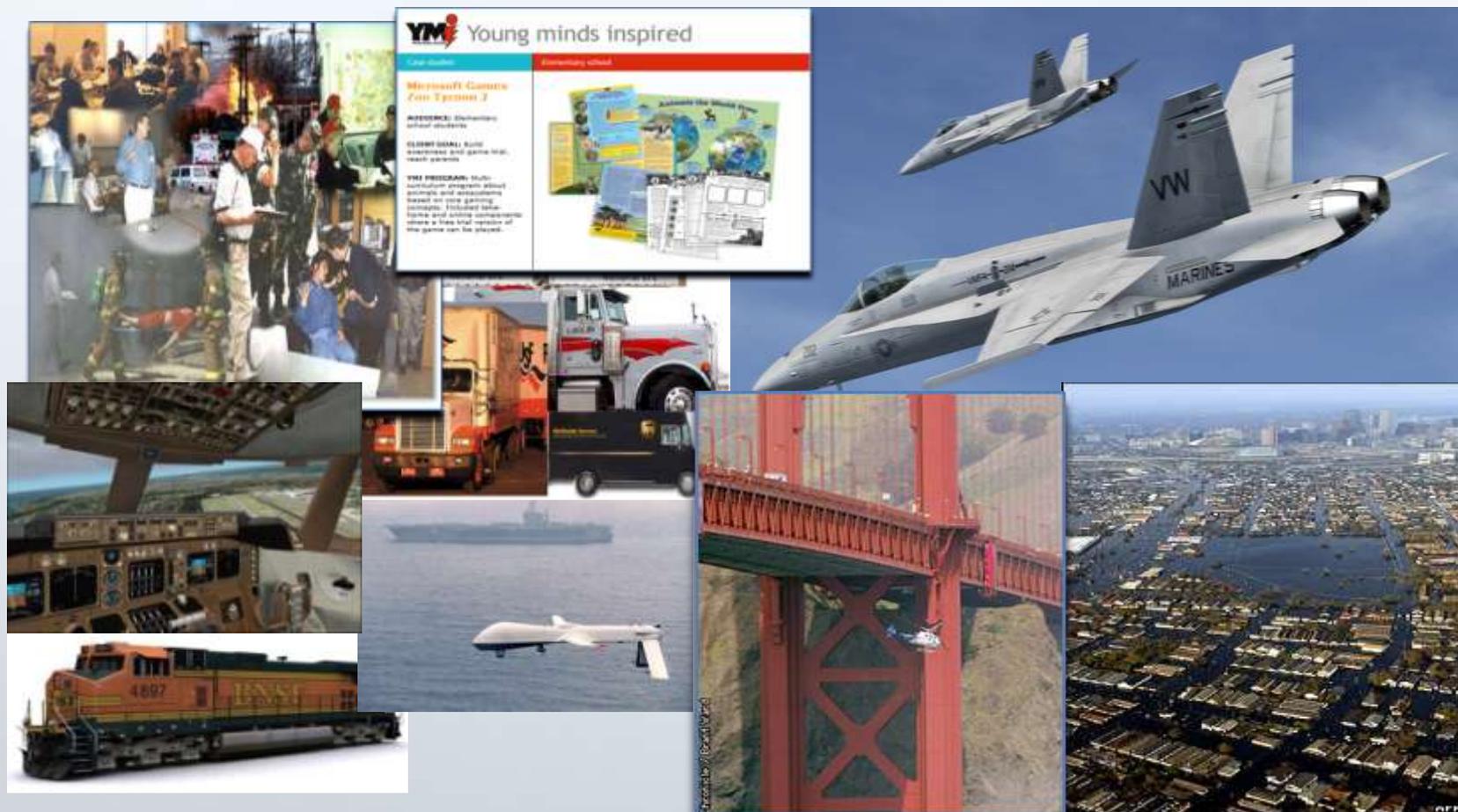
ESP Overview

Microsoft® ESP™ is a visual simulation platform that brings immersive games-based technology to training and learning, decision support, and research and development modeling for government and commercial organizations.

ESP's Strengths

- ▶ Rich Simulation Platform
 - Engine, tools and content
 - Building a robust partner ecosystem
- ▶ Dynamic, Immersive Environments
 - Realistic 3D graphics and data
 - Land, sea, & air; weather, vector data, AutoGen and more
- ▶ Improved Training ROI and Outcomes
 - Affordable
 - Supports COTS and offers very attractive licensing prices & terms
- ▶ Scalable
 - Available for laptops to high-end workstations

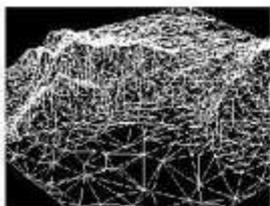
Enable the transformation of the way people learn and organizations plan & prepare.



ESP Technology Roadmap



How We Simulate The World



DEM

Space Shuttle
GTOPO 30
NED (US)
Earthsat (Europe)
GeoScience (Australia)



Landclass

Tiling Textures
Satellite Imagery



Vectors

Roads
Rivers
Lakes
Coastlines
Pipelines
Power Lines
Etc.



World

Weather
Seasons
Celestial Catalogue
Moon Phases
Time Zones
Magnetic Variation



Autogen

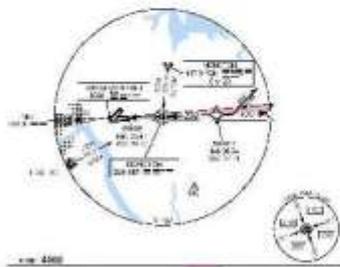
Buildings
Houses
Trees
Fences
Etc.



Airports

Objects

Landmarks
Bridges
Dams



Facilities Data

Jeppesen Naviads
NOAA Hazards
DAFF
FAA



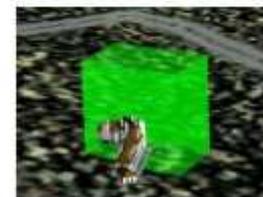
Vehicle Simulation

Airplanes
Boats
Ground Vehicles
Cars & Trucks
Trains
Ambient Traffic



AI Paths and Waypoints

Jeppesen
Navtech



Triggers

Text
Audio
Cameras
Animations
Cut-Scenes



After Action Review

Goals
Timing
Scoring

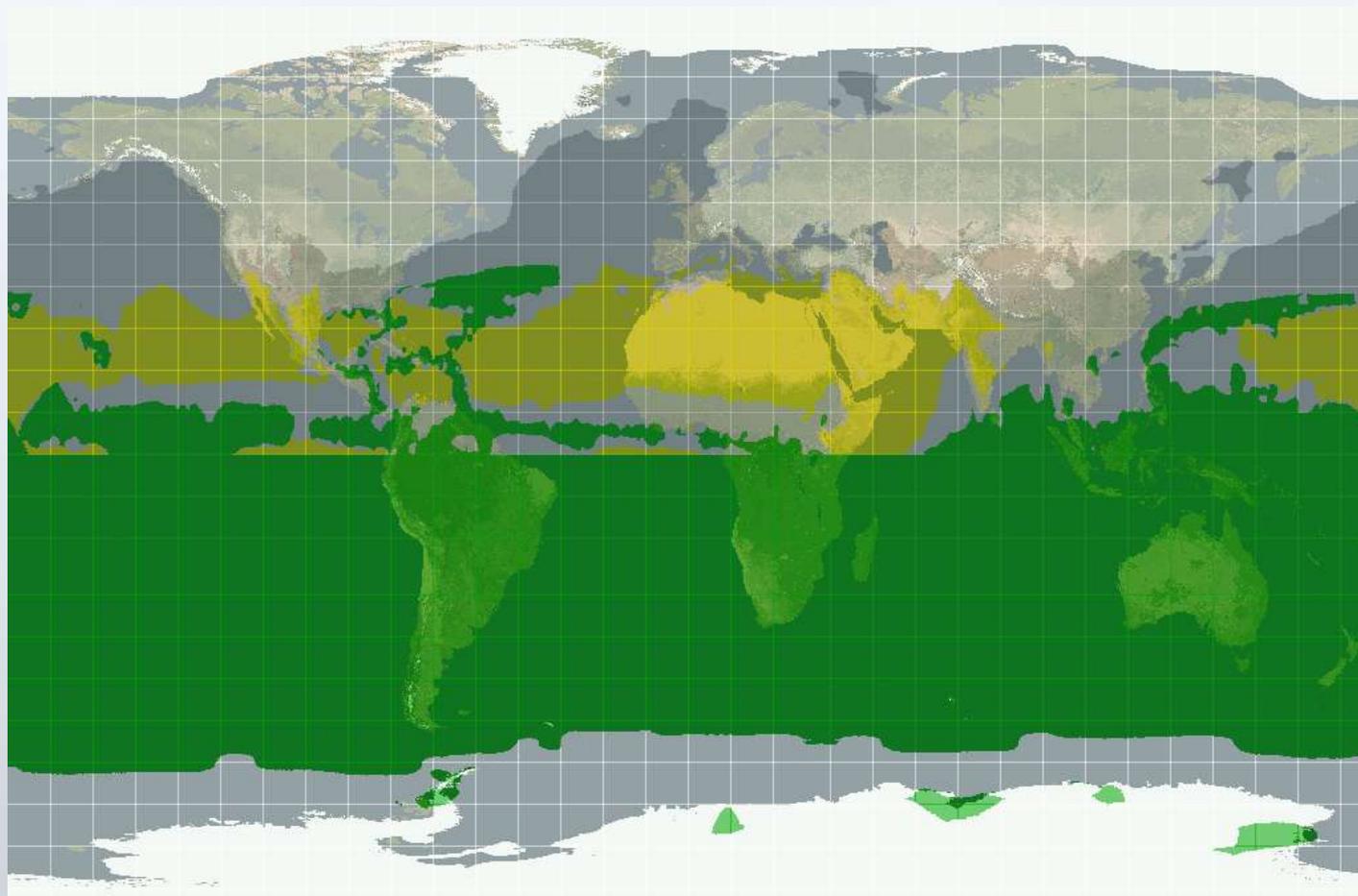


5 Million' View

WGS-84 Datum



12 Monthly Seasonal Variations



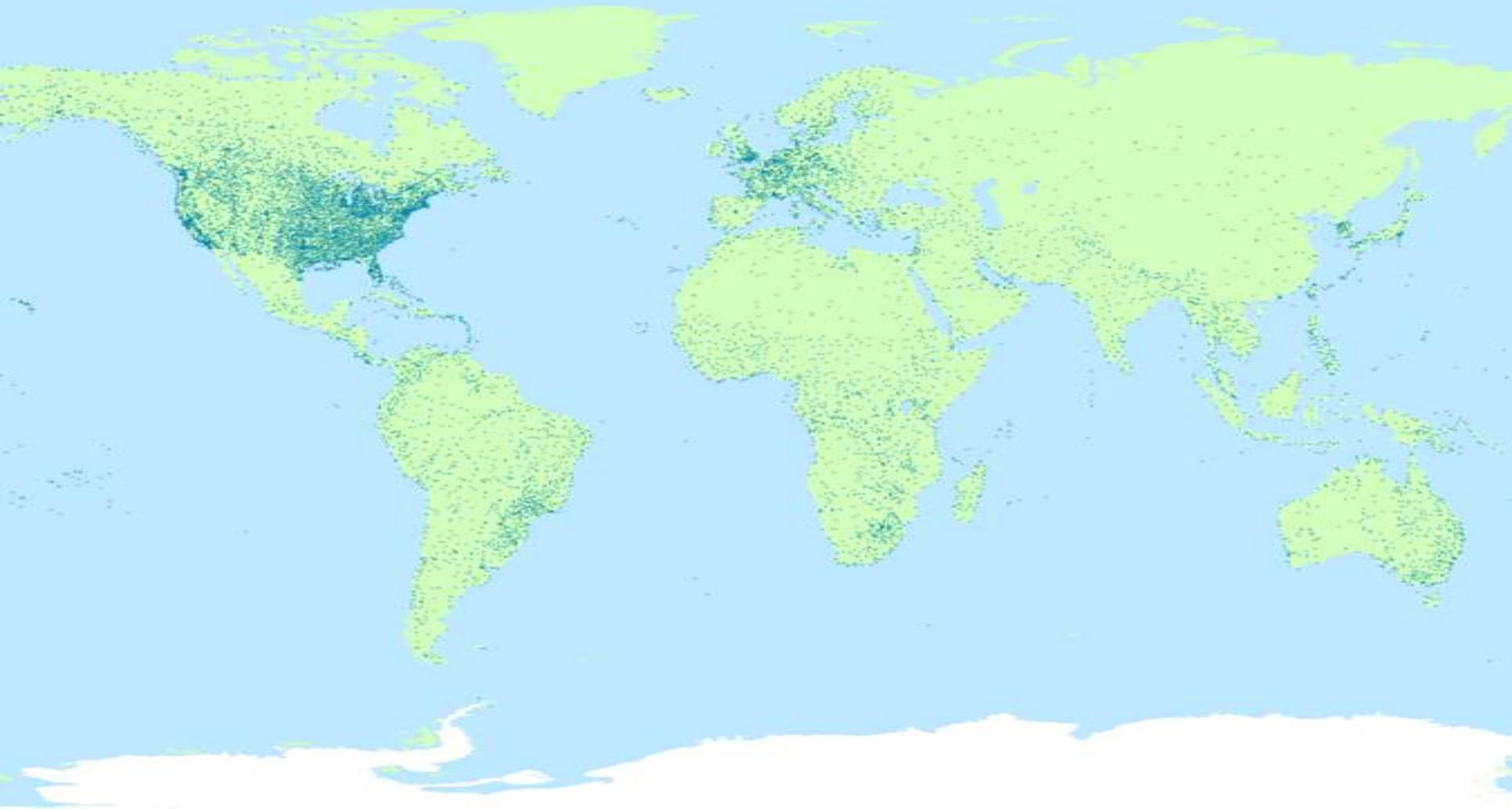
Night Textures



Ground-Level Detail



5,000 Weather Stations Worldwide



Fog over San Francisco Bay



AI-Driven Traffic Patterns



Detailed Cockpits

- ▶ Virtual 3D Cockpits
 - For accurate field of view and depth awareness
- ▶ Fully-interactive
 - Provides immersive training environment
- ▶ Open Architecture
 - Import your own models
- ▶ Programmable interface/SDK
 - Build via C/C++ or XML Script



Missions/Structured Experiences



Multi-Player



ESP chat



Session	Briefing Room Chat
Instructor	Instructor Are you ready to start the training session?
Student	Student I am ready

Potential Scenarios

Scenarios	Market	Potential Customers
Flight Training – Military/Commercial/Civil	Commercial	Military, Airlines and Aviation training schools & organizations
Incident Investigation and Research	All	Government, Airlines, Military
UAV Management and Training	Government Military	Defense contractors, Border Patrol, Public Safety agencies
Mission Preparedness - 3D Fly Through	Military	Militaries, Defense Contractors
Situational Awareness - Conventional bomb on Bridge – Logistics/ Business Resumption	Government	Anti-terrorist groups, First Responders
Vehicle Operation - Fleet Drivers, Train Operators, Heavy Equipment Operators	Commercial	Package delivery firms, fleet operators, Railroads, Transportation Safety & Regulatory agencies
Vehicle Research	Commercial	Vehicle Manufacturers, researchers
Disaster Response Training	Government	Local, State and Federal agencies
Teaching History, Physics, Geography, Environmental Studies, Agriculture	Academic	K-16 educators, curriculum designers, textbook publishers
Maritime Training	Government	Coast Guard, Navy

ESP Partnerships



SAIC



Acron 
Capability Engineering



ESP v1.0 Product Mix

- ▶ ESP v1.0 Client
 - Simulation Engine
 - Base content for the whole planet
 - Remember, it's a platform!
 - 3 DVDs, installable in quiet mode
 - No desktop icon created, nor entry in program files.
- ▶ ESP v1.0 Software Development Kit
 - Tools, utilities, samples
 - Documentation
- ▶ Availability
 - Microsoft Volume Licensing Programs
 - Available on January 1, 2008 Price List

Microsoft ESP Summary

- ▶ Rich visual simulation platform
- ▶ Dynamic, immersive environment
- ▶ Improved outcomes and ROI
 - Training, decision support and R&D modeling
- ▶ ESP Capabilities Roadmap
 - v1.0 – Aviation focus: Available NOW!
 - v2.0 – Adds land/air capabilities
 - v3.0 – Adds marine / indoors / avatars

Microsoft[®]

Your potential. Our passion.[™]

www.microsoft.com.esp