

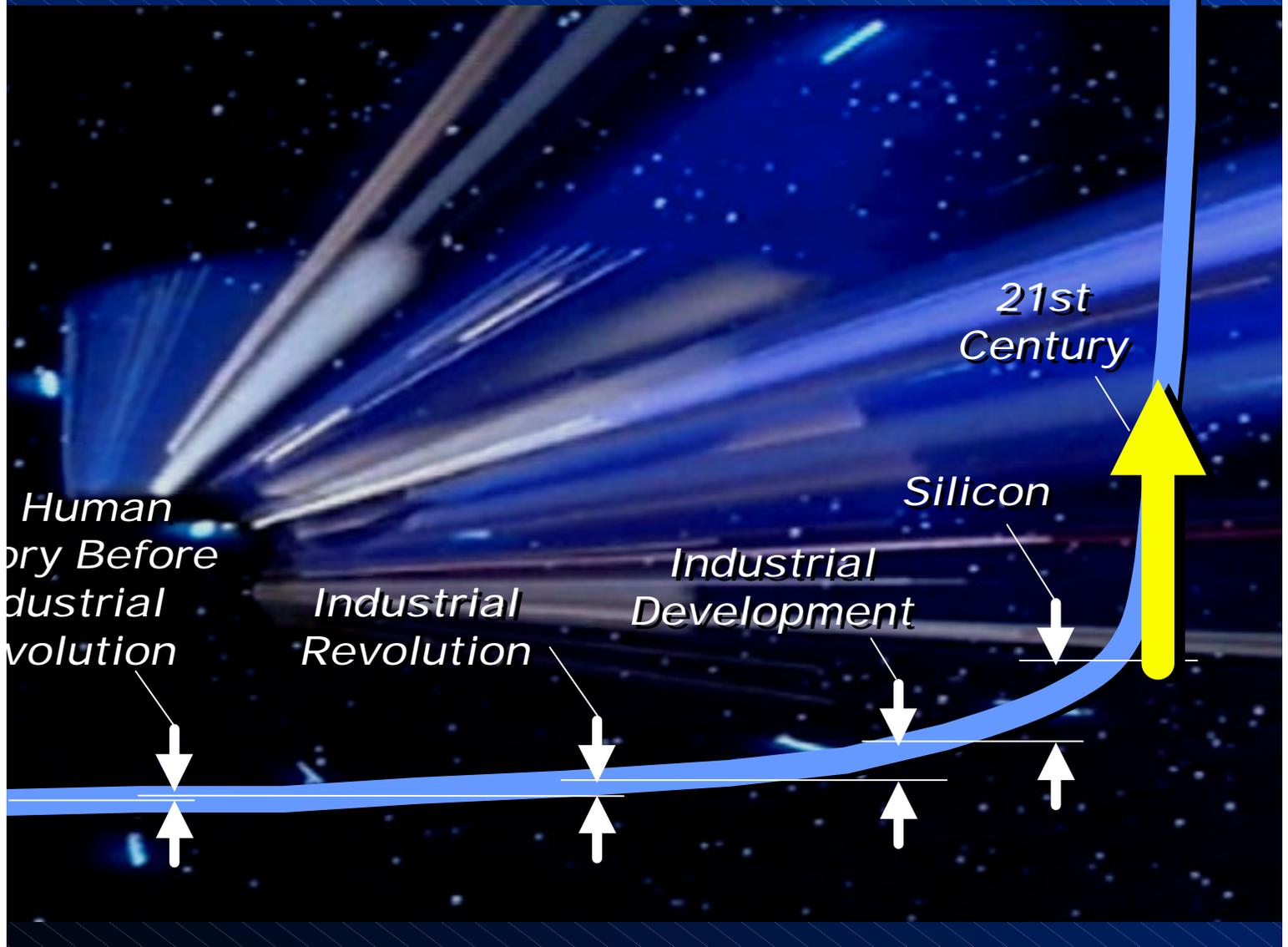
***Naval Aviation
the 21st Century ...***

Going Through the New Millennium

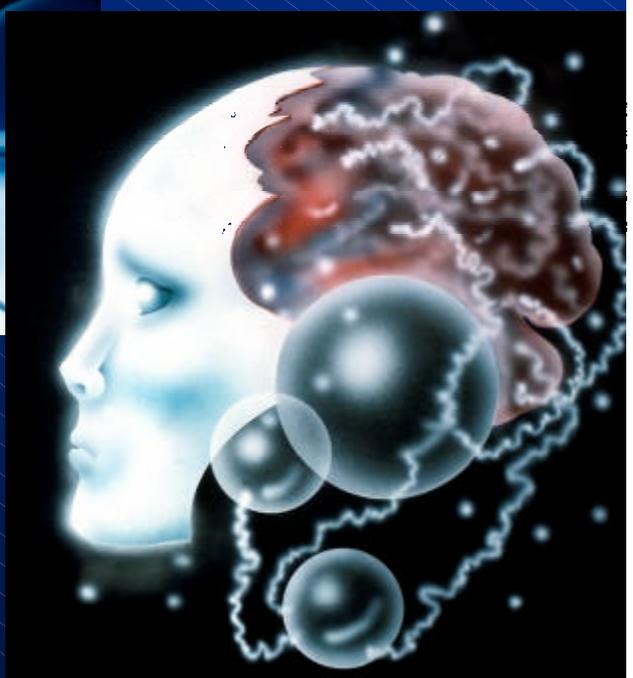
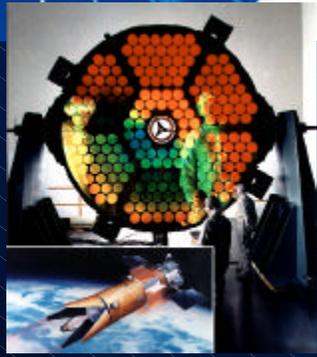
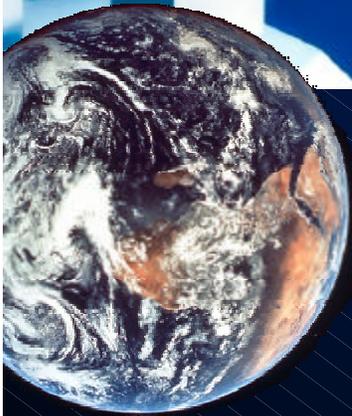
Tom Burbage

**Lockheed Martin
Aeronautics Company**

Rate of Technology Advancement



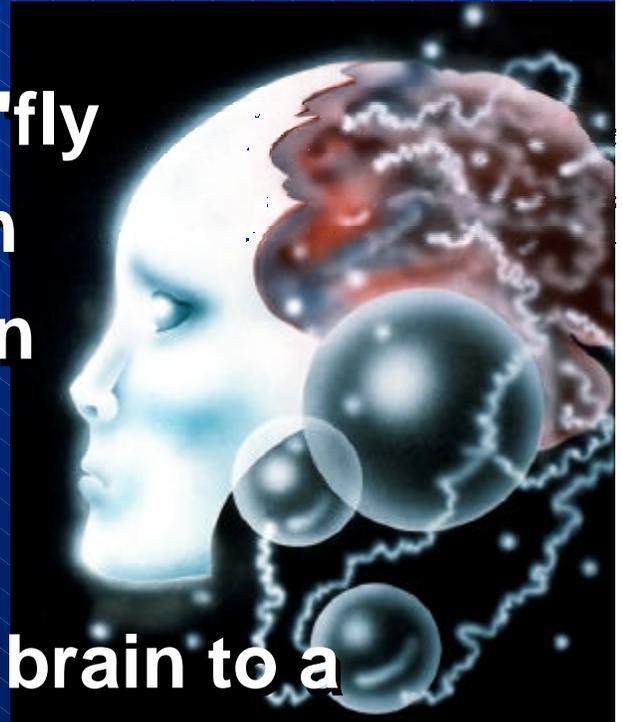
The Next 50 Years Are Unimaginable



Science Fiction?

**systems ... allow pilots to 'fly
thought.' It monitors brain
waves with sensors placed on
pilot's skull."**

**physically linking a living brain to a
computer... has broken down an
important barrier between the animate
and inanimate worlds."**



Science Fiction ... Reality



Technology Drivers - Near Term

Distinct Service identities

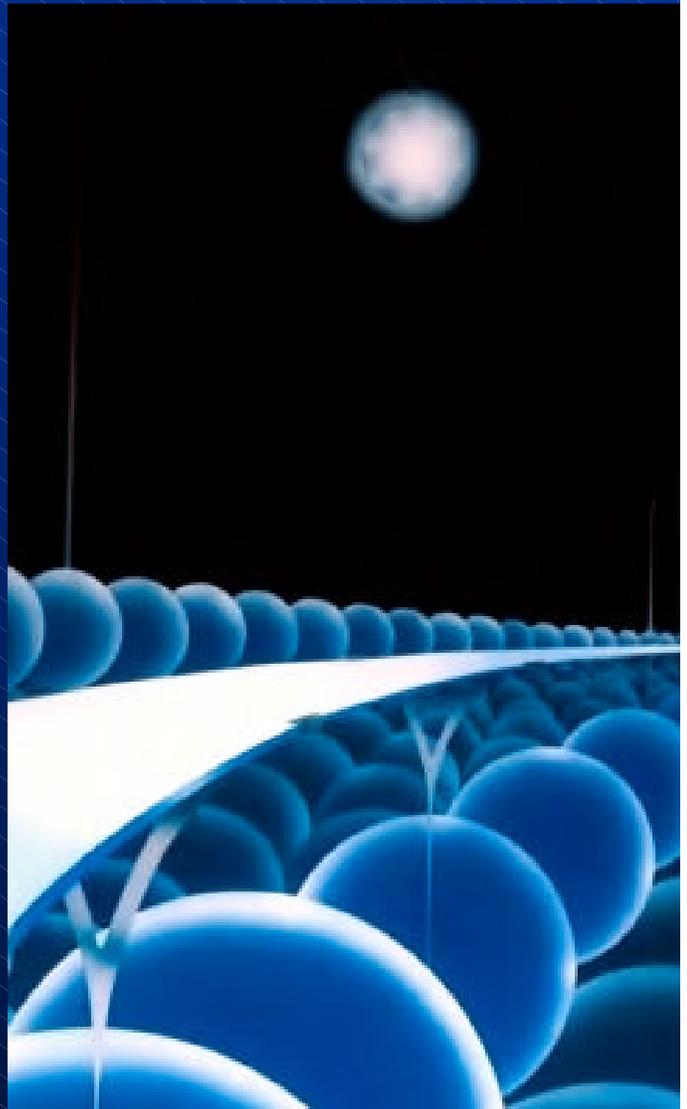
predictable threat

Power different platforms

Unprecedented new programs

Virtual simulation and gaming

**Increase in Government-
Industry Academia Teaming**



Technology Drivers - Mid Term

**Great is mobile, sophisticated,
predictable**

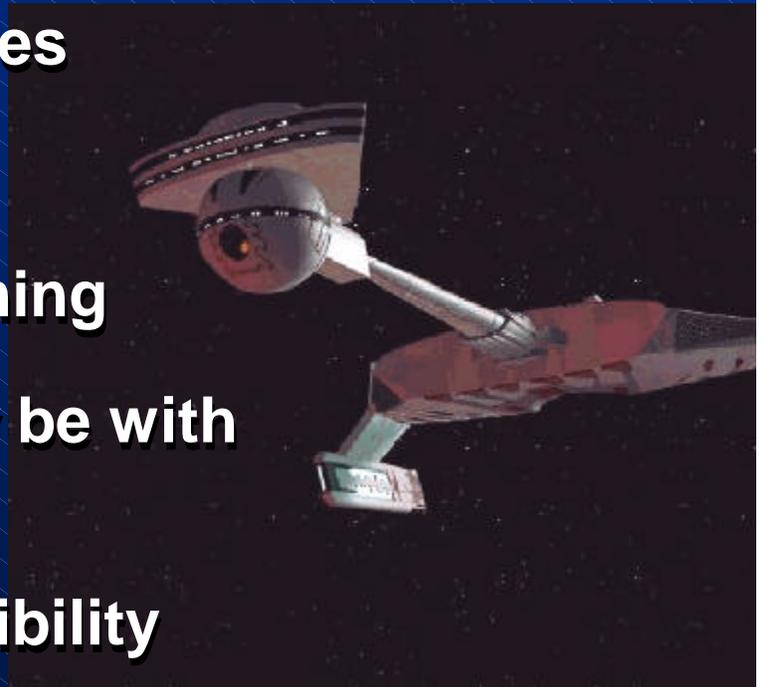
Popularity of bloodless battles

New design philosophies

War-life simulation and gaming

**Functional replacement may be with
very different resources**

Undetectability ... near invisibility



***Klingon Cloaking de
closer to reality ...***

Technology Drivers - Longer Term

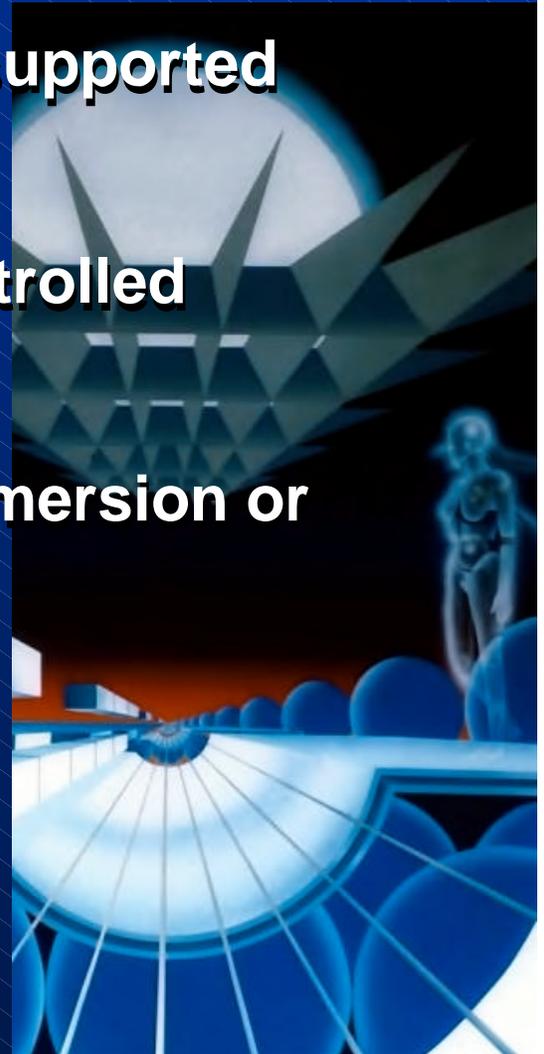
**or vehicles largely uninhabited - supported
by sophisticated main stations**

**flexible craft form, all actively controlled
aerodynamic surfaces**

**dimensionality provides total immersion or
remote projection**

real-time perfect information

reality creation



Automatic Changes, Improvements and Advancements in Naval Aviation

025 ...

- Lots of vintage aircraft with evolutionary upgrades
- Some new aircraft with new 2010 technology
- Some new-technology aircraft and UAVs

050 ...

- The airplanes we know now all will be gone
- Massive microtechnology, computing power, automatic human-machine optimization, survivability
- New technologies create new capabilities and mission

090 ...

- Unrecognizable by today's standards