



DARPA 101

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How did DARPA Start?



Oct. 4, 1957

A Soviet intercontinental ballistic missile launches the world's first artificial satellite, the 183-pound Sputnik I.



December 1957

A Vanguard test rocket, intended to launch the first U.S. satellite, explodes on the launch pad.



Feb. 7, 1958

In response to Sputnik, President Eisenhower establishes the Advanced Research Projects Agency (ARPA), reporting directly to the Secretary of Defense.

The first ARPA Order (funding document) was for the Saturn V Rocket Engine

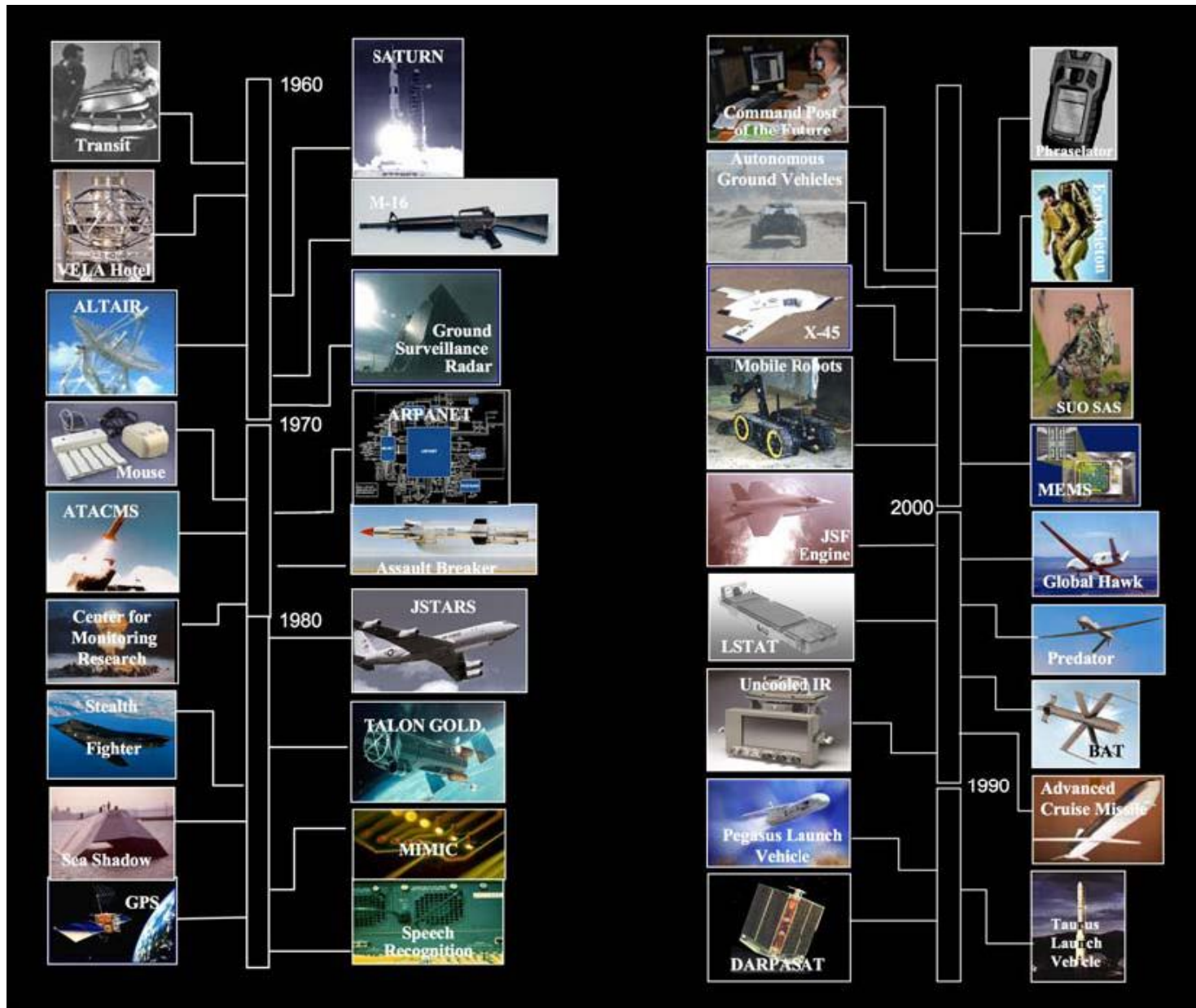


DARPA Mission

The Defense Advanced Research Projects Agency (DARPA) was established in 1958 to **prevent strategic surprise** from negatively affecting U.S. national security and **create strategic surprise** for U.S. adversaries by maintaining the technological superiority of the U.S. military.

To fulfill its mission, the Agency relies on **diverse performers** to apply multi-disciplinary approaches to both advance knowledge through basic research and **create innovative technologies** that address current practical problems through applied research.

As the DoD's **primary innovation engine**, DARPA undertakes projects that are finite in duration but that create **lasting revolutionary change**.



- Current Offices
 - Adaptive Execution Office
 - Defense Sciences Office
 - Biological Technologies Office
 - Information Innovation Office
 - Microsystems Technology Office
 - Strategic Technology Office
 - Tactical Technology Offices
- Previous Offices
 - Material Sciences Office
 - Advanced Technology Office
 - Information Awareness Office
 - Information Systems Office
 - Information Processing Technology Office
 - Information Exploitation Office
 - Transformative Convergence Technology Office
 - Undersea Warfare Office
 - Defense Manufacturing Office
 - Land Systems Office



DARPA Program Managers

- Mid-career Scientists and Engineers
- Multiple hiring paths
 - On loan from non-profits such as Universities
 - The Intergovernmental Personnel Act Mobility Program provides for the temporary assignment of personnel between the Federal Government and state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations.
 - Initial term is for 2 years, renewable for 2 more years without return to institution
 - Military Officers
 - Hired from Industry
 - Term GS (civil service)
 - Experimental hiring authority (Highly Qualified Expert)
- DARPA is a program manager centered organization
 - Organizational focus changes constantly
 - PMs are the ones to talk to about ideas
- **There are no permanent technical employees at DARPA**
 - Program managers, office directors, and agency directors all rotate on a 3 to 5 year timespan
 - Avoids the “not invented here” syndrome

- George Heilmeier a former DARPA director (1975-77) created these questions to help DARPA personnel evaluate proposed concepts
- Heilmeier Questions
 - What are you trying to do?
 - How does this get done at present? Who does it? What are the limitations of present approaches?
 - What is new about your approach? Why do you think you can be successful at this time?
 - If you succeed, what difference will it make?
 - How long will it take? How much will it cost? What are your mid-term and final exams?

- Program Broad Agency Announcement (BAA)
 - These are specific to a technical area
 - These have funding set aside
 - The minimum time they can be open under the Federal Acquisition Regulations (FAR) is 45 days
 - A program manager has successfully completed the new start process and gotten permission to release this type of BAA
- Office Wide BAA
 - These are designed to cover the interests of all the program managers in an office
 - They do not have funding specifically associated with them
 - It is essential to communicate with a PM before submitting an abstract
 - These vehicles are how new concepts get funded as seedlings

- DARPA program managers are covered by the procurement integrity act
 - It is illegal for them to disclose intellectual property received during official duties
 - Disclosing intellectual property to a DARPA program manager does not limit a researchers ability to file a patent
 - Jail time is one of the penalties possible if a PM breaks this law
- Program managers are not able to sign non-disclosure agreements
 - Can't sign for the government
 - Procurement Integrity Act is stricter than an NDA

- You have an idea you can't get funded any other way
- It is a place one person can absolutely make a difference
- It is a place where a scientist or engineer can really contribute to our warfighters