

## Appendix B

# Government-Wide and DOD Definitions of R&D

Definition of R&D					
Government-Wide			DOD-Unique*		
OMB Circular No. A-11 (1998)			DOD Financial Management Regulation (Volume 2B, Chapter 5)		
Conduct of R&D**	Basic Research	Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.	S&T Activities***	Basic Research (6.1)	Systematic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and/or observable facts without specific applications toward processes or products in mind.
	Applied Research	Systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.		Applied Research (6.2)	Systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.
	Development	Systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.		Advanced Technology Development (6.3)	Includes all efforts that have moved into the development and integration of hardware for field experiments and tests.
				Demonstration and Validation (6.4)	Includes all efforts necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology.
				Engineering and Manufacturing Development (6.5)	Includes those projects in engineering and manufacturing development for Service use but which have not received approval for full rate production.
				RDT&E Management Support (6.6)	Includes R&D efforts directed toward support of installation or operations required for general R&D use. Included would be test ranges, military construction, maintenance support of laboratories, operations and maintenance of test aircraft and ships, and studies and analyses in support of R&D program.
				Operational System Development (6.7)	Includes those development projects in support of development acquisition programs or upgrades still in engineering and manufacturing development, but which have received Defense Acquisition Board (DAB) or other approval for production, or for which production funds have been included in the DoD budget submission for the budget or subsequent fiscal year.
				Developmental Test and Evaluation	Efforts associated with engineering or support activities to determine the acceptability of a system, subsystem, or component.
Operational Test and Evaluation	Efforts associated with engineering or support activities to determine the acceptability of a system, subsystem, or component.				
R&D Equipment	The acquisition of major equipment for R&D. Includes expendable or movable equipment (e.g., spectrometers, microscopes) and office furniture and equipment. Routine purchases of ordinary office equipment or furniture and fixtures are normally excluded.	No separate definition	Major equipment dollars are mixed with the dollars for the "Conduct of R&D" and carried in the RDT&E accounts (i.e., 6.1 through 6.7) listed above. In FY 1998, DOD requested a total of \$68M for major R&D equipment.		
R&D Facilities	The construction and rehabilitation of R&D facilities. Includes the acquisition, design, and construction of, or major repairs or alterations to, all physical facilities for use in R&D activities. Facilities include land, buildings, and fixed capital equipment, regardless of whether the facilities are to be used by the government or by a private organization, and regardless of where title to the property may rest. Includes such fixed facilities as reactors, wind tunnels, and particle reactors. Excludes movable R&D equipment.	No separate definition	In FY 1998, close to 90% of the \$67M requested by DOD for R&D Facilities was carried separately in Military Construction accounts. The rest were included in the costs of major development programs and are mixed with the dollars for the "Conduct of R&D" carried in the RDT&E accounts (i.e., 6.1 through 6.7) listed above.		

\* Does not pertain to the Corps of Engineers.

\*\* Includes administrative expenses. Excludes routine product testing, quality control, mapping, collection of general-purpose statistics, experimental production, routine monitoring and evaluation of an operational program, and the training of scientific and technical personnel.

\*\*\* Includes costs of laboratory personnel, either in-house or contractor operated.