



# Department of Defense DIRECTIVE

NUMBER 4510.11

April 12, 2004

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USD(AT&L)

SUBJECT: DoD Transportation Engineering

- References: (a) DoD Directive 4510.11, "DoD Transportation Engineering," October 2, 1995 (hereby canceled)
- (b) [DoD Instruction 5000.2](#), "Defense Acquisition Management Policies and Procedures," May 12, 2003
  - (c) Section 210 of title 23, United States Code
  - (d) [DoD Instruction 6055.4](#), "Department of Defense Traffic Safety Program," July 20, 1999

## 1. REISSUANCE AND PURPOSE

This Directive:

- 1.1. Reissues reference (a).
- 1.2. Establishes policy and assigns responsibilities for:
  - 1.2.1. Conducting DoD transportation engineering.
  - 1.2.2. Incorporating effective transportation engineering techniques and characteristics into DoD transportation processes, equipment, and facilities.
  - 1.2.3. Ensuring that DoD transportation engineering interests and infrastructure concerns are considered in civil transportation programs (Federal, State, and local governments, and applicable industry).

## 2. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities in the Department of Defense (hereafter referred to collectively as "the DoD Components").

## 3. DEFINITIONS

Terms used in this Directive are defined in enclosure 1.

## 4. POLICY

It is DoD policy to integrate peacetime and mobilization transportation engineering needs into civil and DoD programs to ensure that national defense interests are protected. Responsible Agencies under this Directive, shall:

4.1. Incorporate safe, efficient, and effective transportation engineering features in the design, construction, modification, and maintenance of DoD transportation processes, equipment, and facilities.

4.2. Ensure that national transportation policies include DoD transportation engineering interests within the resources of civil programs at Federal, State, and local governmental levels to accomplish the following:

4.2.1. Coordinate defense peacetime and mobilization interests on design, development, and maintenance of highway, rail, port, and intermodal facilities with civil transportation agencies.

4.2.2. Develop DoD transportation engineering criteria, procedures, and guidance for consideration in civil transportation engineering programs.

4.3. Ensure that the DoD Component-coordinated transportation engineering interests are included in common-user DoD transportation systems (cargo-carrying ships, barges, aircraft, railcar cars, materiel and container handling equipment, and highway transporters) construction and modification programs.

4.4. Evaluate the design and development of new or modified DoD equipment, as directed by DoD Instruction 5000.2 (reference (b)).

## 5. RESPONSIBILITIES

5.1. The Under Secretary of Defense for Acquisition, Technology, and Logistics shall establish DoD policies governing DoD transportation engineering programs.

5.2. The Heads of the DoD Components shall:

5.2.1. Establish a transportability engineering program consistent with reference (b) to integrate effective mobility features into the design and development of new or modified defense materiel and equipment.

5.2.2. Incorporate effective, efficient, and safe transportation engineering techniques and characteristics into DoD transportation processes, equipment, and facilities.

5.2.3. Support the policies and procedures of this Directive, to include budgeting responsibilities, for respective DoD Component installation and activity defense access road needs and protection of defense-essential civil rail lines.

5.2.4. Ensure multi-Service and U.S. Transportation Command (USTRANSCOM) coordination prior to construction or major modification of common-user defense transportation systems.

5.2.5. Coordinate with the Combatant Commander, USTRANSCOM, or designee, regarding the following common-user transportation engineering issues:

5.2.5.1. Unresolved or other serious conflicts with civil authorities on use of public highway facilities.

5.2.5.2. Designation of Strategic Highway Corridor Network (STRAHNET) and required connector highways.

5.2.5.3. Defense access road needs, reporting requirements, and appropriate programming to fund design and development.

5.2.5.4. Analysis that military construction estimates and bids exclude any allowances for repairing damage to highways used in construction of ballistic missile sites when 23 U.S.C. 210 (reference (c)) applies.

5.2.5.5. Installations and activities requiring civil railroad access.

5.2.5.6. Designation of Strategic Rail Corridor Network (STRACNET) and civil rail lines important to national defense.

5.2.5.7. Consideration of defense options to abandonment of connector rail lines to installations and activities.

5.2.6. Coordinate with the Secretary of the Army, or designee, for the following DoD Component installation transportation engineering matters:

5.2.6.1. DoD installation and activity transportation engineering issues and the need for transportation engineering consultation services.

5.2.6.2. Requirements for new and improved transportation engineering features in defense transportation processes, equipment, and facilities.

5.2.6.3. Planning, design, and development of major new defense installation and activity modal facilities and need for impact evaluation.

5.2.7. Incorporate efficient and effective use of intermodal transportation techniques and containerization in the design and construction of new or modified installation and activity transportation equipment and facilities.

5.3. The Combatant Commander, USTRANSCOM, shall:

5.3.1. Identify DoD transportation engineering interests in civil transportation programs and ensure coordination.

5.3.2. Represent the Department of Defense in negotiations and discussions with civil transportation agencies and industry concerning common-user transportation engineering matters.

5.3.3. Identify DoD Component-coordinated transportation engineering interests in common-user DoD transportation systems construction and modification programs.

5.3.4. Determine DoD common-user engineering and infrastructure criteria to:

5.3.4.1. Manage the DoD Highways for National Defense Program.

5.3.4.1.1. Identify STRAHNET and required connector highways and coordinate with Federal and State transportation authorities.

5.3.4.1.2. Establish and coordinate effective design standards and criteria for safe movement of DoD equipment on civil highways.

5.3.4.1.3. Review and analyze DoD access road needs and, when appropriate, those of other Federal Agencies, and certify to the Secretary of Transportation, on behalf of the Secretary of Defense, the civil highway needs of the Department of Defense in accordance with reference (c).

5.3.4.1.4. Ensure repair of damages to public roads serving DoD ballistic missile sites under conditions of DoD Instruction 6055.4 (reference (d)).

5.3.4.1.5. Advise and assist the DoD Components with their resource programming to meet defense access road needs.

5.3.4.2. Manage the Railroads for National Defense Program to identify, review, and analyze DoD interests in civil rail lines that include, but are not limited to:

5.3.4.2.1. The STRACNET and civil rail lines important to national defense.

5.3.4.2.2. The joint list of DoD installations and activities requiring civil rail lines to accomplish their assigned missions.

5.3.4.2.3. Rail criteria for oversize/overweight defense shipments.

5.3.4.2.4. Readiness criteria for maintenance of civil rail lines.

5.3.4.2.5. Impact assessments of railroad abandonments, bankruptcies, and mergers on national defense interests.

5.3.4.2.6. Assist and advise the DoD Components regarding their financial assistance to protect essential civil sector rail line(s).

5.3.4.2.7. Solicit civil sector support and consideration of DoD needs for civil rail lines and integration into policy, plans, standards, programs, and regulations of the railroad industry.

5.3.4.3. Manage and conduct transportation engineering programs for analyses of common-user defense-important seaports.

5.3.4.4. Monitor modal legislative processes to ensure that DoD transportation engineering interests are protected.

5.3.4.5. Ensure that the DoD Component-coordinated transportation engineering interests are considered in defense common-user transport construction and modification programs.

5.3.4.6. Publish multi-Service regulations for the Highways and Railroads for National Defense Programs.

5.4. The Secretary of the Army shall:

5.4.1. Ensure the use of effective and safe transportation engineering techniques into DoD installation transportation processes, equipment, and facilities by providing appropriate consultation.

5.4.2. Promote incorporation of appropriate Federal standards into the design and construction of DoD Component highway facilities, as directed by reference (d).


5.4.3. Promote efficient and effective use by the DoD Components of intermodal transportation techniques and containerization.

5.4.4. Promote a coordinated transportability engineering program between the DoD Components through publication of a multi-Service regulation.

5.4.5. Provide the DoD Components with transportation engineering services, to the maximum extent possible, for identification and evaluation of defense installation and activity transportation engineering needs.

6. EFFECTIVE DATE

This Directive is effective immediately.



Paul Wolfowitz  
Deputy Secretary of Defense

Enclosures - 1

E1. Definitions

## E1. ENCLOSURE 1

### DEFINITIONS

E1.1.1. Civil Transportation Agencies. A term used collectively for those organizations that have statutory responsibilities to incorporate DoD requirements into non-DoD, Federal, State, or local transportation programs and regulations involved with highways, railways, ports, and intermodal systems; e.g., the U.S. Department of Transportation, the Federal Highway Administration, the Federal Railroad Administration, the U.S. Maritime Administration, and State and local transportation departments.

E1.1.2. Defense Transportation System. That portion of the global transportation infrastructure that supports DoD common-user transportation needs across the range of military operations. It consists of those common-user military and commercial assets, services, and systems organic to, contracted for, or controlled by the Department of Defense. Also called the "DTS."

E1.1.3. DoD Transport System. Organic transportation assets (trucks, trailers, ships, aircraft, railcars, tugs, barges, and containers, etc.).

E1.1.4. DoD Transportation Engineering Programs. The formally established DoD transportation engineering organizations and their assigned responsibilities, to include, but not limited to, the highways, railroads, and ports for national defense programs.

E1.1.5. Financial Assistance. Monetary aid to civil transportation agencies or rail carriers considering transportation facility design, modification, construction, lease, or purchase that is determined to be important to the national defense. That assistance must meet eligibility criteria as jointly established by the transportation agencies and the Department of Defense.

E1.1.6. Intermodal Systems. Specialized transportation facilities, assets, and handling procedures designed to combine multimodal operations and facilities during the shipment of cargo (generally standardized intermodal containers).

E1.1.7. Railroad Industry. Civil sector organizations involved in rail transportation; e.g., private and Government rail carriers, and advocacy groups.



E1.1.8. Transportability Engineering. A transportation engineering technology required to identify and measure limiting criteria and characteristics of transport systems, and to apply this information to the engineering design of new materiel and equipment having a movement requirement.

E1.1.9. Transportation Engineering. The science of evaluating the requirements for, and planning the layout and functional aspects of, transportation equipment and facilities to develop the most efficient operating relationships pertaining to traffic movement patterns and transportation processes.