# DoD Manual 4510.12

# DoD Transportation Engineering Program

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| **Originating Component:** | Office of the Under Secretary of Defense for Acquisition and Sustainment |
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| **Approved by:** | Christopher Lowman, Assistant Secretary of Defense for Sustainment |

**Purpose:** In accordance with the authority in DoD Directive (DoDD) 5135.02 and the guidance in DoDD 4510.11, this issuance:

- Implements policy, prescribes procedures, and assigns responsibilities for DoD Transportation Engineering and associated programs, including:
  - The Highways for National Defense (HND) Program.
  - The Defense Access Roads (DAR) Program.
  - The DoD Traffic Engineering Program.
  - The Railroads for National Defense (RND) Program.
  - The Ports for National Defense (PND) Program.
- Prescribes procedures and assigns responsibilities for infrastructure and deployability analyses and installation transportation engineering studies.

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# SECTION 1: GENERAL ISSUANCE INFORMATION

## 1.1. APPLICABILITY.

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

# SECTION 2: RESPONSIBILITIES

## 2.1. ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT.

Under the authority, direction, and control of the Under Secretary of Defense for Acquisition and Sustainment, the Assistant Secretary of Defense for Sustainment:

a. Establishes procedures for implementing DoD transportation engineering programs in accordance with DoDD 4510.11.

b. Reviews and approves exceptions and waivers to this issuance when necessary.

## 2.2. SECRETARIES OF THE MILITARY DEPARTMENTS AND THE DIRECTOR, DEFENSE LOGISTICS AGENCY.

The Secretaries of the Military Departments and, under the authority, direction, and control of the Under Secretary of Defense for Acquisition and Sustainment, the Director, Defense Logistics Agency:

a. Coordinate with the Director, Surface Deployment and Distribution Command (SDDC) Transportation Engineering Agency (TEA) as the Special Assistant for Transportation Engineering (SATE) regarding the common-user transportation, installation transportation engineering, and deployability engineering matters in accordance with DoDD 4510.11.

b. Incorporate effective, efficient, safe, and secure transportation engineering techniques and standards into their installation and activity transportation processes, equipment, and facilities.

c. Coordinate DoD Transportation Engineering Program requirements with the Director, SDDC TEA and each other:

(1) On DoD transportation engineering programming, planning, budgeting, and implementation.

(2) Before modifying or building any major common-user defense transportation system that may affect the movement capability or the mission of another DoD Component.

(3) On planning, programming, and budgeting for new or improved facilities, specifically related to DAR needs, to defense essential rail-road lines where service is threatened, to port facilities, to deployment-related needs, and other transportation engineering requirements when needed.

d. Solicit, review, validate, and forward requests for transportation engineering consultation services at installations and deployment-related activities (e.g., defense public highway needs and DAR needs, installation highway safety, traffic engineering, and deployment engineering analysis) to the Director, SDDC TEA.

e. Oversee compliance with Part III, Appendix F of Defense Transportation Regulation (DTR) 4500.9-R requirements for military movements on public roads and highways (e.g., emergency use of public highways and permits for oversize and overweight movements).

f. Program and budget for transportation engineering infrastructure analysis and needs in the military construction (MILCON) plan for those projects that fall within the DAR and traffic engineering programs.

g. Inform the SATE of future changes at or near installations, activities, and marine ports that may impact common-user transportation or deployability engineering capability or other travel and safety conditions.

h. Direct military installations during the development of the transportation component of their installations master plans in accordance with Section 2864 of Title 10, United States Code (U.S.C.) to:

(1) Participate in civil transportation agencies' transportation planning activities in the vicinity of their respective installations (e.g., metropolitan planning organization or regional transportation organizations in the area in which the military installation is located).

(2) Coordinate with regional or local transportation planners regarding major installation changes to the transportation component of their installation master plans.

## 2.3. CHAIRMAN OF THE JOINT CHIEFS OF STAFF.

The Chairman of the Joint Chiefs of Staff:

a. Coordinates with the Combatant Commanders to identify transportation engineering and deployability issues that affect the Combatant Commander's ability to move personnel and materiel to support contingency plans.

b. Coordinates with the SATE and Combatant Commanders to develop and to implement actions to resolve transportation engineering and deployability issues that affect the Combatant Commanders' ability to move personnel and materiel to support contingency plans.

## 2.4. COMMANDER, UNITED STATES TRANSPORTATION COMMAND.

The Commander, United States Transportation Command oversees the Commander, SDDC's execution of responsibilities and functions in accordance with DoDD 4510.11, DoD Instruction 5158.06, and the Unified Command Plan. Through the Commander, SDDC, the Commander, United States Transportation Command:

a. Certifies roads as eligible and important to meet national defense needs when appropriate for programming MILCON funds.

b. Designates strategic seaports to support deploying DoD vehicles, equipment, and materiel during contingencies as necessary.

c. Oversees the Director, SDDC TEA's execution of responsibilities and functions as the SATE, who:

(1) Manages the HND Program in accordance with Part 193 of Title 32, Code of Federal Regulations (CFR).

(2) Manages the DAR Program pursuant to Section 210 of Title 23, U.S.C.

(3) Manages the PND Program pursuant to Sections 4501 to 4568 of Title 50, U.S.C.

(4) Coordinates with the Military Departments and the Defense Agencies on transportation engineering matters and the publication of supporting procedures in the DTR 4500.9-R.

(5) Manages the traffic engineering, infrastructure analysis, and deployment analysis needs for DoD.

# SECTION 3: HND PROGRAM

## 3.1. HND PROGRAM GUIDANCE.

a. In accordance with DoDD 4510.11, SDDC TEA manages and administers the HND Program to maintain adequate, safe, and efficient highway access in order to integrate the highway needs of the national defense into the civil highway programs of the various State and Federal agencies and to work with those agencies on matters related to public highway use and plans for development and construction. The SDDC TEA:

(1) Addresses national defense highway needs through regular Federal, State, and local highway programs (e.g., the U.S. Department of Transportation (DOT) Federal Highway Administration (FHWA) Federal program to assist the States in highway construction and improvements).

(2) Coordinates with the Military Departments and the Defense Agencies to plan and identify defense needs for Federal and State DOT programs.

(3) Coordinates defense use of public highways that are not related to military installations with representatives of the U.S. DOT FHWA, the American Association of State Highway and Transportation Officials, and other Federal, State, civil, and local transportation agencies.

(4) Acts as the DoD focal point for integrating defense public highway needs into civil transportation agencies highway programs and Federal transportation legislation.

(5) Monitors Federal and State highway transportation legislation, as required, to identify the DoD’s highway transportation needs and provides input related to DoD's needs into such legislation.

(6) Promotes compliance with public highway operating requirements by ensuring that requirements for compliance are integrated into the design and development process for military vehicles and equipment.

(7) Advises military representatives on requirements to coordinate with and obtain authority from civil transportation agencies in accordance with Part III, Appendix F of DTR 4500.9-R to use public highways for moves that exceed legal limitations or subject highway users to unusual hazards.

(8) In cooperation with U.S. DOT FHWA:

(a) Coordinates with Federal and State transportation officials on designating routes and connector highways for the Strategic Highway Network (STRAHNET), the system of public highways that are a key part of the deployment of the U.S. Armed Forces and that provide defense access, continuity, and emergency capabilities for movement of defense personnel and equipment during peace time and war.

(b) Assesses public highways for safe and efficient movement of DoD vehicles.

(c) Reviews the design of military vehicles and equipment to assess the capability to move these items on public highways based on size, width, and weight.

(d) Coordinates DoD requirements on the STRAHNET and Interstate and Defense Highway System (IDHS) with the U.S. DOT FHWA, State, and the DoD representatives. SDDC TEA coordinates DoD mission requirements:

1. During emergency highway traffic operations.

2. For IDHS vertical clearances.

b. Military Departments direct installation commanders on implementing the HND Program. Installation commanders coordinate with SDDC TEA, State and local government, and State and local highway authorities to:

(1) Identify peacetime and contingency non-installation public highway needs (e.g., the IDHS vertical clearance requirements necessary to meet DoD mission requirements).

(2) Provide input to SDDC TEA on STRAHNET requirements and its connector highway routes:

(a) To identify and validate requirements and deficiencies for defense highway movements.

(b) To resolve issues with State and local highway officials that affect defense public highway movements needed in support of the military mission.

(3) Inform SDDC TEA of changes or deficiencies at installations' multiple access and egress routes to the STRAHNET that may adversely impact non-installation public highways needs.

(4) Obtain State permits for oversized and overweight vehicles or other special military movements over public highways in accordance with Appendix F of Part III, DTR 4500.9-R.

(5) Identify deficiencies in the quality of, or service provided by, a public highway and the associated civil transportations agencies that may adversely affect defense public highway needs.

(6) Coordinate with civil transportation agencies to correct deficiencies in public highways that are identified in accordance with Paragraph 3.1.b.(5).

(7) Include a description that is validated by the appropriate Military Departments offices that have transportation engineering responsibilities listed in Appendix F of Part III, DTR 4500.9-R, when requesting assistance in resolving public highway deficiencies.

## 3.2. MILITARY USE OF PUBLIC ROADS AND HIGHWAYS.

a. The Military Departments and the Defense Agencies:

(1) Use public roads and highways designed to serve the general public in order to meet the needs of national defense.

(2) Operate in peacetime within Federal and State highway legal limits and safety regulations to help ensure that the highways are safe and available when needed for defense movements in support of national emergency requirements.

(3) Move oversized and overweight vehicles and cargo by alternate modes of transportation (e.g., rail and barge) or commercial highway carriers when possible. Follow the procedures in Appendix F of Part III, DTR 4500.9-R to:

(a) Obtain permits from the State or local authorities that own the public highways to move oversized and overweight equipment on public roads and highways as required for other non-DoD highway users.

(b) Request permission as required, through the State adjutant general designated defense movement coordinator (DMC), to the State or local authorities that own public highways for convoy operations on public highways.

(c) Obtain appropriate Federal and State highway permits to maintain positive military and public relationships, avoid citations for violating laws, and prevent vehicle out of service orders.

(4) During emergencies, allow unit commanders to proceed with a defense movement on public roads and highways in accordance with the following requirements:

(a) If following State or local written public highway permit coordination and approval procedures would adversely delay and cause mission failure.

(b) After advising the appropriate civil agencies of the emergency and requesting movement at the earliest possible time.

(c) Only upon receipt of verbal approval of the movement request from the State adjutant general designated DMC and appropriate State and local officials.

(d) Upon the submission of a formal written request for a written permit completed as soon as the mission permits.

(5) Follow the movement and convoy procedures in Appendix F of Part III, DTR 4500.9-R for:

(a) Requesting special hauling permits for oversized and overweight equipment.

(b) Determining whether public highway movements are essential to national defense for both commercial and organic transporter moves.

(c) Certifying movements as essential to national defense.

(d) Convoy operations.

b. The SDDC TEA:

(1) Develops procedures and responsibilities for DoD use of public highways for United States Transportation Command to publish in Appendix F of Part III, DTR 4500.9-R.

(2) Assists the Military Departments, Defense Agencies, and civil transportation agencies with coordinating and using public highways for movements, when needed.

## 3.3. EMERGENCY HIGHWAY PREPAREDNESS.

The SDDC TEA:

a. Coordinates with the U.S. DOT FHWA designated representatives to integrate DoD operational requirements into the emergency transportation operations planning for disasters.

b. Coordinates with State authorities to identify DoD requirements in emergency preparedness plans based on U.S. DOT FHWA direction and guidance.

c. Identifies DoD requirements to State emergency operations centers directing emergency services.

# SECTION 4: DAR PROGRAM

## 4.1. DAR PROGRAM CRITERIA.

a. The DAR Program is authorized pursuant to Section 210, Title 23, U.S.C. to enable the Secretary of Transportation with funds appropriated for the DAR Program to construct roadways which DoD certifies are important to the national defense. The DAR Program is co-administered by U.S. DOT FHWA, who acts as DoD's consultant in public highway matters and the conduit for the expenditure of defense funds on public highways. Pursuant to Section 210 of Title 23, U.S.C. and in accordance with DoDD 4510.11, the SDDC TEA:

(1) Reviews and analyzes Military Department requirements for constructing and maintaining DARs Program requirements for permanent defense installations and activities (e.g., highway improvements and maintenance projects to support ongoing, long-term defense-generated traffic, normal traffic, sudden or unusual defense-generated traffic, and anticipated growth of defense traffic).

(2) Advises and assists Military Departments on programming the resources necessary for DAR Program requirements to serve permanent defense installations and activities in the same manner as for other non-defense traffic generators.

(3) Reviews Military Department requirements to determine if DAR Program eligibility criteria are met pursuant to Subpart E, Part 660, Title 23, CFR.

b. The Military Departments:

(1) Program and budget defense funds for DAR needs that meet the DAR Program eligibility criteria to:

(a) Provide a new connection between an installation and a non-installation public highway.

(b) Provide urgently needed relief to existing public highways where traffic has suddenly increased due to a new installation or expanded workforce.

(c) Avoid congestion or structural failure on a non-installation public highway caused by a projected temporary surge in installation-generated traffic while constructing a DoD facility.

(d) Accommodate a new requirement for regular and frequent movements of oversized, overweight vehicles or equipment that may cause severe damage to public highways.

(e) Replace a non-installation public highway closed by military necessity.

(f) Repair damage to, or improve, primary access roads that have experienced recurrent flooding impacting the military's mission for 5 consecutive days or more than five times in a 12-month period.

(2) Do not use defense funding to build or improve public highways serving commercially owned and operated defense industries.

(3) Coordinate with civil transportation agencies on requirements for adequate access to State-owned National Guard facilities.

## 4.2. DAR PROGRAM IMPLEMENTATION.

a. Installation commanders:

(1) Identify public highway deficiencies that need maintenance or improvement.

(2) Contact the responsible State or local highway departments to request that deficiencies on public highways that adversely affect access to defense installations and activities be addressed in State or local transportation improvement plans.

(3) Identify significant transportation impacts during the environmental planning process for new or expanded development of the installation.

(4) Coordinate with the State and local highway departments and the planning organization to:

(a) Identify and assess the impacts of potential transportation deficiencies on public highways on the DoD mission.

(b) Identify appropriate and timely relief.

(5) When the transportation deficiency identified on the public highway creates a mission impact, safety, or security situation for defense movements, prepare a DAR Program needs report:

(a) After consulting with SDDC TEA for guidance.

(b) With a detailed description of the current or projected deficiencies of the DAR and the defense-generated causes that contributed to the deficiencies.

(c) That identifies the proposed improvements to the public highway, command funding priority for the improvement project, and Military Department future funding capabilities of the improvement project.

(6) Forward the DAR Program needs report through command channels to validate the need for the improvement project, ensure the information provided is complete, and endorse requirements for the project.

b. Military Departments and Defense Agencies:

(1) Identify highway impacts to State and local traffic when planning installation development in cases in which DoD resources and defense movements are required to be

evaluated in order to identify significant transportation impacts that may occur off of the installation.

(2) Coordinate with the SDDC TEA to identify DoD funds for DAR Program projects:

(a) By a specific line item in annual Military Department MILCON programs.

(b) To program, budget, and finance for DAR Program projects for defense installations and activities.

(3) Review and validate the DAR Program needs report description of how the DAR Program project is important to national defense.

(4) Send the validated DAR Program needs reports to SDDC TEA.

c. The SDDC TEA:

(1) Reviews the DAR Program needs reports and evaluates the potential transportation deficiencies identified in the needs report based on the DAR Program eligibility criteria in Paragraph 4.1.b.

(2) Requests U.S. DOT FHWA assistance and an independent evaluation of the DAR Program needs report if the transportation deficiencies meet the eligibility criteria for DAR Program funding.

(3) Prepares a certification package and letter for the Commander, SDDC when a transportation improvement meets the DAR Program eligibility criteria in Paragraph 4.1.b.

(4) Monitors funding and tracks execution of funded DAR Program projects during design and construction.

(5) Reviews the DAR Program needs reports to determine if the requirement has the potential to qualify for defense funding.

(6) Sends a request for the U.S. DOT FHWA to conduct an engineering field evaluation of DAR Program needs that have the potential to qualify for defense funding.

(7) Coordinates with the U.S. DOT FHWA and appropriate State, local, and installation representatives:

(a) To identify the warranted improvements, approximate costs, and the State and local highway agencies' plans and fiscal abilities to correct the public highway deficiencies.

(b) On public highway matters that affect State and local traffic and are unrelated to defense installation and activities' movements.

(c) Regarding the expenditure of defense funds on public highways.

(d) On other installation matters, such as:

1. Establishing a new installation.

2. Expanding an installation's workforce or mission in a way that results in a quick, dramatic increase in off-installation traffic volumes that substantially degrade local public roadways in the area in which the installation is located.

3. Adding a new installation gate or access point that adversely impacts a public highway.

4. Assigning a new mission to the defense installation that results in repeatedly moving overweight and oversized vehicles or equipment over public roads and highways that are not designed and constructed to accommodate such movements.

5. Expanding installation boundaries such that an existing State or local public highway must be closed.

6. Improve or repair damage to primary access roads due to flooding.

7. Use and consider U.S. DOT FHWA information and other available information from State and local highway transportation agencies to determine if:

a. A proposed project meets the DAR Program criteria in Paragraph 4.1.b.

b. The fair share of a project should be funded by the DoD.

c. The final project scope of work and amount of the defense funding contribution is agreed upon by the appropriate civil transportation agencies.

(8) Coordinates with the Military Departments to identify defense funds that are available to fund DAR Program projects in accordance with the following criteria:

(a) By a specific line item in annual Military Department MILCON programs.

(b) By ensuring that the Military Departments and Defense Agencies program, budget, and finance DAR projects for their respective installations and activities.

(9) Submits the DAR Program needs report package to the Commander, SDDC with the information necessary to:

(a) Certify that the project is important to national defense.

(b) Validate MILCON funding requirements.

d. The Commander, SDDC:

(1) Reviews DAR Program needs report packages to determine if the proposed project meets the DAR Program criteria in Paragraph 4.1.b. and are important to national defense in accordance with Section 210 of Title 23, U.S.C.

(2) Certifies requirements:

(a) For projects that meet the DAR Program criteria in Paragraph 4.1.b. and are important to national defense in accordance with Section 210 of Title 23, U.S.C.

(b) To determine the eligibility of roads that are important to national defense and to validate requirements for programing MILCON funds.

## 4.3. OPERATIONAL ROAD MAINTENANCE REQUIREMENTS.

a. The SDDC TEA and the U.S. Air Force:

(1) Coordinate on road maintenance requirements for U.S. Air Force ballistic missile sites generally located in remote areas served by public roads or that are unpaved gravel roads, such as a gravel farm-to-market road.

(2) Maintain a list of roads that are used by oversized, overweight vehicles to transport missiles year-round.

(3) Validate the certification that the missile road network of both paved and gravel road is important to the national defense and qualifies for the expenditure of defense funds to maintain roads that are structurally adequate to carry the missile transporters year-round.

(4) Coordinate with State and local highway authorities to maintain the missile road network and all normal or public use of the roads.

(5) Administer the DoD Extraordinary Maintenance Program through the DAR Program to cover the extraordinary maintenance and the structural standards beyond those required by the normal or public use of the road with operations and maintenance funds in accordance with Part 660 of Title 23, CFR.

b. The SDDC TEA:

(1) Manages DoD requirements for public roads and highways designated as “maneuver area roads” during field maneuvers or exercises for moving large military units (e.g., division or equivalent).

(2) Coordinates with the military installation, State and local highway authorities, and the U.S. DOT FHWA for:

(a) Maneuver notification.

(b) Proper documentation of roadway conditions before and after DoD maneuvers or exercises take place on public roads and highways.

(c) Actions required for damage to public roads and highways before, during, and after DoD maneuvers or exercises.

(3) Coordinates with representatives from the military installation, State and local highway authorities, and the U.S. DOT FHWA before and after DoD maneuvers and exercises

take place on public roadways and highways to assess damages and develop cost estimates for repairs' inspections when necessary.

c. The Military Departments coordinate with SDDC TEA and the U.S. DOT FHWA:

(1) When a DoD field maneuver or exercise has been ordered that may adversely impact public roads and highways.

(2) On the time of the DoD maneuver or exercise, the types of vehicles and tracked systems to be involved in the maneuver or exercise, a map showing public roads and highways to be used by DoD, and the borders of the maneuver areas.

(3) On reimbursements for repairs for damage incurred during DoD maneuvers or exercises.

# SECTION 5: DOD TRAFFIC ENGINEERING PROGRAM

## 5.1. TRAFFIC ENGINEERING SERVICES.

When requested, the SDDC TEA:

a. Provides traffic engineering services, guidance, training, review installation traffic management plans, traffic engineering or feasibility studies, and alternatives for access control points to defense installations.

b. Provides traffic engineering services to installation commanders, including:

(1) Geometric designs of transportation facilities.

(2) An analysis of traffic operations and safety concerns.

(3) An analysis of crash and roadway fatalities on or near installations.

(4) An analysis and design of specific gate and entry control facilities to support installation force protection and anti-terrorism projects.

(5) Selection, placement, and operation of traffic control devices.

(6) Guidance to support the installation's master or comprehensive planning to solve traffic flow, safety, planning and parking problems in addition to efforts to conserve energy and reduce vehicle emissions.

(7) A review of the installation's master, development, or comprehensive plan, data collection efforts, review of accident and congestion problem locations, analysis of roadway enhancement alternatives, and development of recommended engineering improvements.

(8) Telephone advice and assistance to:

(a) Answer questions and to resolve problems of limited scope related to proper application of traffic control devices, design criteria, or similar topics.

(b) Review plans, concepts, and proposals to validate preliminary designs of new transportation or traffic-generating facilities before actual site selection or design approval.

(c) Conduct traffic engineering studies of limited or comprehensive scope.

(d) Outsource engineering studies from experienced engineering services firms at the installation's complete or partial expense when needed based on the availability of in-house SDDC TEA resources.

(e) Undertake special studies, including traffic management plans, sign maintenance plans, and road safety assessments to solve common installation traffic engineering problems.

## 5.2. REQUESTS FOR TRAFFIC ENGINEERING SERVICES.

Installation commanders:

a. Develop and maintain installation roadways to:

(1) Provide a safe driving environment for all drivers and passengers.

(2) Meet Federal and State standards.

b. Strongly consider forming a traffic safety coordination group that includes members from installation organizations who will bring diverse knowledge and maintain continuity to identify, document, and solve traffic-related problems.

c. Develop traffic safety programs in accordance with DoD Instruction 6055.04, including:

(1) Safety belt usage and driver education programs.

(2) Traffic enforcement.

(3) Accident and mishap investigations.

(4) Community partnership programs.

d. Substantially conform to the Manual on Uniform Traffic Control Devices, the DoD Supplement to the National Manual on Uniform Traffic Control Devices for Streets and Highways, and State DOT adopted versions of the Manual on Uniform Traffic Control Devices for all installation traffic signs, signals, markings, and other devices used to warn, regulate, or guide traffic.

e. Make every effort to conform to traffic laws and regulations of the host nation when the installation is located outside the United States.

f. Submit requests to the Director, SDDC TEA for variations in the design and application of installation traffic control devices.

g. Establish a sign maintenance program in accordance with the Manual on Uniform Traffic Control Devices.

h. Use the contact information on SDDC Website (https://www.sddc.army.mil/sites/tea/pages/default.aspx) to request assistance from SDDC TEA traffic engineers.

i. Submit requests for traffic engineering services to the Director, SDDC TEA.

# SECTION 6: RND PROGRAM

6.1. This section provides the policies and procedures pertaining to the RND Program and the DoD requirements for rail lines that are located and operated in the United States

6.2. The Military Department designated representatives:

a. Coordinate with SDDC representatives on DoD requirements for rail lines.

b. Submit documentation, descriptions, and justification for continental United States (CONUS) rail lines to meet DoD mission requirements.

c. Analyze alternative transportation solutions when an installation is faced with the potential loss of rail service.

d. Program and budget funds to assist in retaining a connector line when rail service is essential and no alternative solutions have been determined and documented as identified by SDDC TEA.

6.3. The SDDC TEA:

a. Reviews, analyzes, and identifies DoD requirements for:

(1) Rail lines on the Strategic Rail Corridor Network (STRACNET), which reflects the minimum interconnected system of main rail lines needed for swiftly moving defense equipment and materiel within CONUS in peacetime and wartime.

(2) Rail connectors from STRACNET to DoD installations, activities, and ports.

(3) Rail line design and maintenance criteria to support DoD oversized and overweight shipments.

b. In coordination with the U.S. DOT, updates and evaluates STRACNET and its connector lines and determines their readiness and safety condition.

c. In partnership with the civil transportation agencies, railroad industry, and government representatives, integrates DoD's rail requirements into plans, standards, programs, regulations, and rules, at the lowest cost to DoD and to the extent feasible.

d. Monitors and analyzes potential railroad line abandonments and railroad commercial company bankruptcies and mergers to determine their impact on national defense and advises the proponent Military Department on available options when such issues will impact an installation's mission.

e. Analyzes transportation engineering of DoD installation rail capabilities, including augmenting those capabilities with other modes of transportation.

f. Analyzes transportation engineering in matters pertaining to rail infrastructure vulnerability for defense-important rail lines.

g. Advises and assists the office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Department of Defense and Military Departments with information needed to prepare budgets and validate funds that are required for the retention of rail lines when:

(1) The rail line is essential for the installation to accomplish its mission.

(2) Rail line owners and operators request financial assistance to keep it operational.

(3) Surface Transportation Board abandonment proceedings or other analysis conclude that the railroad cannot be economically viable without financial assistance in accordance with Public Law 114-110, also known, and referred to in this issuance, as the "Surface Transportation Board Reauthorization Act of 2015."

(4) No combination of other shipper or civil transportation agency funding can adequately provide the assistance needed.

(5) The affected DoD Component submits documentation that the railroad is essential to national defense and that funds will be applied to the requested assistance package, subject to the congressional reporting requirements of Section 2864 of Title 10, U.S.C. of the transportation impacts to installations that are related to railway retention and in accordance with the Surface Transportation Board Reauthorization Act of 2015.

h. Every 5 years, documents the installations that have missions that require railroad service and the commercial railroads that are important to meeting national defense requirements. Using the documentation, coordinates with the Military Departments and civil transportation agencies to maintain the rail services necessary to meet DoD requirements.

i. When notified that an installation may lose rail service due to rail line abandonment or the rail carrier discontinuing service, implements an abandonment option, as described in Paragraph 6.2.d., to protect the service at the lowest cost to DoD.

j. Monitors rail line abandonment status by reviewing and analyzing proposed abandonments filed with the Surface Transportation Board by rail carriers.

k. Coordinates with the State rail planner on options to prevent rail line abandonment that impact installations.

l. Alerts affected installations when they may be required to monetarily maintain rail lines that support their missions in extreme cases of poor track condition and very low revenue at the State and local level.

m. Works with the affected Military Department and installation to protect rail services required to support installations' missions.

n. Accepts rail service abandonment as the last option to protect required rail service.

# SECTION 7: PND PROGRAM

## 7.1. DOD REQUIREMENTS FOR COMMON-USER SEAPORTS.

a. The PND program policy applies to defense transportation engineering analysis of common-user seaports in the United States. In support of the PND program, the SDDC TEA has the following responsibilities:

(1) Identifies seaports that are needed, or have potential use for DoD vehicle, equipment, and materiel shipments and are designated for defense use in contingencies during peacetime and wartime.

(2) Identifies DoD requirements based on infrastructure characteristics data and projected throughput capabilities of seaports needed to support defense force projection requirements.

(3) Conducts transportation engineering analysis of defense-important seaports to support contingency planning.

(4) Uses accurate, responsive seaport infrastructure characteristics, capability data, and projected workload analysis to assess the DoD's capability to meet defense peacetime and contingency movement needs.

(5) Recommends transportation engineering alternative solutions for seaport enhancements when the seaport is not capable of meeting defense peacetime or contingency movement needs.

(6) Works with seaport officials from civil transportation agencies to integrate defense transportation needs into civil sector plans, standards, and programs, at the lowest cost to the DoD.

b. The Commander, SDDC designates additional strategic seaports, as necessary, to support DoD vehicle, equipment, and materiel shipments during contingencies. For details on this process, the point of contact is the SDDC Plans, Programs, and Policy Directorate.

## 7.2. SEAPORT INFRASTRUCTURE CAPABILITY.

a. The SDDC TEA:

(1) Reviews the system of U.S. strategic seaports important for deployment and other national defense purposes.

(2) Provides the DoD Components with accurate and responsive information on seaport infrastructure characteristics, production capability, and projected workloads.

(3) Conducts transportation engineering analysis and recommends resolutions for potential shortfalls in seaport capabilities.

(4) Coordinates with civil transportation agencies to integrate defense transportation engineering needs into civil sector seaport plans, standards, and programs.

(5) Conducts port infrastructure capability analysis of seaport facilities when:

(a) Requested by DoD Components for engineering services to support contingency planning.

(b) Requested by DoD components to provide a quick-response study of seaport infrastructure facilities related to deployment planning, contingency execution, humanitarian efforts, exercises, and other mission requirements.

(c) Needed to maintain a current, accurate database of seaport infrastructure characteristics and production capabilities.

(6) Conducts seaport transportation engineering analysis to:

(a) Determine the adequacy of existing seaport infrastructure information.

(b) Collect additional data, when needed for transportation engineering analysis.

(c) Identify seaport terminals, staging areas, loading and unloading facilities, and supporting equipment within the vicinity of the study area that are best suited to support DoD needs.

(d) Determine the production capabilities for all seaport operations (e.g., receiving, staging, and loading) and establish the military usefulness of seaport facilities.

(e) Determine if the seaport and nearby facilities meet established deployment requirements, including time constraints.

(f) Recommend transportation engineering solutions that overcome identified shortfalls in seaport facilities to support DoD requirements.

(g) Update a master database of key seaport infrastructure characteristics and capabilities.

b. The Military Departments:

(1) Coordinate with the SDDC TEA on their transportation engineering requirements for seaports.

(2) Requests seaport information and analyses from the SDDC TEA.

# SECTION 8: INSTALLATION AND INTERMODAL INFRASTRUCTURE ANALYSIS

## 8.1. MILITARY DEPARTMENTS.

The Military Departments:

a. Coordinate with SDDC TEA on matters pertaining to transportation engineering requirements for installations and intermodal system facilities.

b. Request a transportation engineering analysis of installation and intermodal system facilities transportation capabilities from the Director, SDDC TEA as needed.

## 8.2. SDDC TEA.

The SDDC TEA:

a. Conducts a transportation engineering review of DoD Component installations and intermodal system facilities, when requested by DoD Components, to support contingency planning.

b. Provides DoD Components with accurate and responsive information regarding transportation infrastructure characteristics for appropriate installations and intermodal system facilities.

c. Recommends appropriate alternative solutions and infrastructure enhancements when current and planned infrastructure does not meet defense peacetime and contingency transportation needs.

d. Coordinates with the DoD Components, as necessary, to conduct transportation engineering analysis of installation and intermodal system facilities when requested by DoD Components for engineering services to:

(1) Support the contingency planning process.

(2) Provide quick-response studies of installation and intermodal system facility transportation capabilities related to deployment planning, contingency execution, stability and support operations, military exercises, and other mission requirements.

(3) Maintain a current, accurate database of installation and intermodal facility infrastructure characteristics to support other ongoing engineering analysis.

e. Analyzes installation and intermodal system facility transportation engineering to:

(1) Determine the adequacy of existing facility infrastructure for staging, loading, and off-loading, and movement of vehicles, equipment, materiel.

(2) Verify existing data and collect additional data, as needed, to conduct engineering analyses of the installation and intermodal facility infrastructure.

(3) Identify transportation facilities in the vicinity of the study area that are best suited to support DoD needs.

(4) Determine the capabilities of appropriate transportation intermodal systems and establish the military usefulness of each system component.

(5) Determine if the installation intermodal system facility and any nearby facilities will meet established deployment requirements, including time constraints.

(6) Recommend transportation engineering solutions that will overcome identified transportation capability shortfalls.

(7) Maintain a current master database of key infrastructure characteristics and capabilities.

# SECTION 9: DEPLOYABILITY ANALYSIS

## 9.1. PURPOSE OF DEPLOYABILITY ANALYSIS.

The Military Departments and Joint Chiefs of Staff conduct deployability analysis to:

a. Support developing transportation-feasible operation plans.

b. Identify potential changes in the Defense Transportation System.

c. Complement the contingency planning process with detailed deployability analyses to address potential transportation problems encountered by DoD forces moving from home stations to operational destinations.

d. Validate requirements for proposed changes to force structure, weapons systems, transportation assets, prepositioned equipment, supplies, sustainment stocks, and other equipment relative to their impact on overall transportation and deployability capabilities.

## 9.2. CONDUCTING DEPLOYABILITY ANALYSIS.

a. The SDDC TEA:

(1) Conducts deployability analysis to determine transportation requirements for deployments.

(2) Develops strategic mobility planning factors for all transportation modes.

(3) Provides deployability analyses for:

(a) Theater transportation plans that support the operational and contingency missions of unified commands, joint task forces, and the Military Services.

(b) Contingency planning, exercises, and other special studies.

(c) Major DoD programmatic efforts such as a mobility capabilities and requirements study.

(4) Identifies deployment-related modeling and simulation requirements and validating model processes using analytical experience and reviewing historical and operational data.

(5) Determines deployability impacts of weapon systems, new force designs, prepositioning concepts, and distribution schemes in terms of force closure, cost, and transportation resources.

(6) Provides recommendations on materiel design, force structure, prepositioning, and transportation system improvements to improve overall deployability.

(7) Analyzes the deployability of new equipment and force structure designs to support Joint Chiefs of Staff planning and analysis of alternatives.

(8) Develops appropriate computer models and other simulations to provide measures of deployability parameters such as transportation assets required and predicted time for origin-to-destination movements.

(9) Analyzes the impact of changes in weapon systems, new force designs, prepositioning concepts, and distribution schemes on force transportation and deployability parameters.

b. The Military Departments and Joint Chiefs of Staff:

(1) Request deployability analyses from SDDC TEA to supplement contingency planning for:

(a) Port reception, staging, and throughput capabilities.

(b) Analysis of the onward movement and integration to support military theater operations.

(c) Other Defense Transportation System capabilities needed for Joint Chiefs of Staff planning and analysis of alternatives.

(2) Validate deployability requirements based on changes in weapon systems, new force designs, prepositioning concepts, distribution plans, and other transportability and deployability parameters.

# GLOSSARY

## G.1. ACRONYMS.

| ACRONYM | MEANING |
|---|---|
| CFR | Code of Federal Regulations |
| CONUS | continental United States |
| DAR | defense access roads |
| DMC | defense movement coordinator |
| DoDD | DoD directive |
| DOT | Department of Transportation |
| DTR | Defense Transportation Regulation |
| FHWA | Federal Highway Administration |
| HND | highways for national defense |
| IDHS | Interstate and Defense Highways System |
| MILCON | military construction |
| PND | ports for national defense |
| RND | railroads for national defense |
| SATE | Special Assistant for Transportation Engineering |
| SDDC | Surface Deployment and Distribution Command |
| STRACNET | Strategic Rail Corridor Network |
| STRAHNET | Strategic Highway Network |
| TEA | Transportation Engineering Agency |
| U.S.C. | United States Code |

## G.2. DEFINITIONS.

Unless otherwise noted, these terms and their definitions are for the purpose of this issuance.

| TERM | DEFINITION |
|---|---|
| **abandonment** | As used in the railroad industry, an intention to cease operation on a line, or to terminate the line itself. Abandonment is official when the Surface Transportation Board issues an order authorizing abandonment of the line and the railroad has notified the Surface Transportation Board that it has executed the abandonment authorization. |
| **access road** | An existing or proposed public highway from a military installation, defense industry, or activity that leads to suitable transportation facilities. This may include public highways through military installations when they are dedicated to public use and, by fee simple or easement, are owned, operated, and maintained by civil authorities. |
| **American Association of State Highway and Transportation Officials** | A nonprofit, nonpartisan association representing highway and transportation departments in the 50 States, the District of Columbia, and Puerto Rico. It represents all transportation modes, including air, highways, public transportation, active transportation, rail, and water. Its primary goal is to foster the development, operation, and maintenance of an integrated national transportation system. More information is available at https://www.transportation.org/. |
| **civil transportation agencies** | A collective term for those organizations with 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 such as the U.S. DOT FHWA, the Federal Railroad Administration, the U.S. Maritime Administration, and State and local transportation departments. |
| **common user** | Services, material, or facilities provided by a DoD agency or a Military Department on a common basis for two or more DoD agencies, elements, or other organizations as directed. A transportation facility that regularly provides (for two or more Services) the transportation functions of receipt, transit storage or staging, processing, and loading or unloading of cargo or passengers. It may be a military installation, part of a military installation, or a commercial facility operated under contract or arrangement by a DoD Component. |

| TERM | DEFINITION |
|---|---|
| **contingency plan** | Defined in Joint Publication 5-0. |
| **DAR Program** | A mechanism for defense funding to be applied towards public highway improvements that are critical to national defense pursuant to Section 210 of Title 23, U.S.C. when a road is certified as important to national defense. The program's goal is to provide a process that ensure that the U.S. military pays its share of the cost of public highway improvements necessary to mitigate the unusual impact from the execution of a defense activity, such as a significant increase in personnel at a military installation, the relocation of an access gate at a military installation, or the deployment of an oversized or overweight military vehicle or transporter unit. |
| **Defense Transportation System** | That portion of the worldwide transportation infrastructure that supports DoD transportation needs in peace and war with military and commercial resources: aircraft, assets, services, and systems unique to, contracted for, or controlled by the DoD. |
| **DoD Transportation Engineering Organizations and Programs** | The formally established DoD transportation engineering organizations and their assigned responsibilities, including, but not limited to, the oversight, management, and execution of the DAR, HND, PND, and RND Programs. |
| **deployability analysis** | The assessment of the ability of the Joint Deployment and Distribution Enterprise to support the deployment and sustainment of Military Services from origin to destination, with special emphasis on identifying closure delays due to the impacts resulting from transportation assets or infrastructure. |
| **DMC** | A representative appointed by the appointed by the Adjutant General of each State and territory to receive and approve DoD convoy movements on public highways, schedule and deconflict requests for convoy movements, and ensure convoy movements conform to Federal, State, and local laws. |
| **emergency** | During a national emergency, movements deemed essential to the national defense, not under direct control of DoD agencies, certified as necessary by the emergency transportation authority, and not determined essential solely as a matter of convenience, cost, or training needs. |

| TERM | DEFINITION |
|---|---|
| **force closure** | The point in time when a supported commander determines that sufficient personnel and equipment resources are in the assigned operational area to carry out assigned tasks. |
| **force projection** | Projecting the military element of national power from the CONUS or another theater, in response to requirements for military operations. |
| **installations** | A base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a Military Department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a Military Department or the Secretary of Defense. |
| **intermodal system facilities** | Specialized transportation facilities, assets, and handling procedures designed to combine multimodal operations and facilities during the shipment of cargo. |
| **maneuver** | A planned and controlled tactical or strategic movement of troops and equipment. |
| **maneuver area road** | A public road that is usually outside military installation boundaries, is identified in official departmental orders as needed for field maneuvers or military exercises and is anticipated to be damaged beyond that of normal usage as a result of the exercise. |
| **mobility capabilities and requirements study** | A study, normally congressionally-directed, which assesses the sufficiency of all aspects of the mobility system to meet national defense requirements. |
| **operation plan** | Defined in Joint Publication 5-0. |
| **public roads and highways** | Roads and highways designed to serve the general motoring public, provide for intrastate and interstate freight movement, and meet the needs of national defense. |
| **STRACNET** | Those rail corridors within CONUS that are needed or have potential use in peacetime or wartime transportation of DoD vehicles, equipment, and materiel, and that are designated important to national defense. |

| TERM | DEFINITION |
|---|---|
| **STRAHNET** | Approximately 61,000 miles of national highways that are important to DoD that includes the Dwight D. Eisenhower IDHS and other strategically important public highway segments. It also includes an additional 2,000 miles of connector roads that ensure that key installations, activities, facilities, and ports are linked with the STRAHNET. These routes are selected based on stated installation public highway needs, freight records, and operational plans as provided by DoD Components. Together, the STRAHNET and its connectors represent the minimum public highway network that is needed to support the defense mission. |
| **Surface Transportation Board** | An independent Federal, bipartisan, independent adjudicatory agency that was established by the Surface Transportation Board Reauthorization Act of 2015 and is charged with the economic regulation of various modes of surface transportation, primarily freight rail. For more information, see https://www.stb.gov. The agency has jurisdiction over railroad rate, practice, and service issues and rail restructuring transactions, including mergers, line sales, line construction, and line abandonments. The Surface Transportation Board has jurisdiction over certain passenger rail matters, the intercity bus industry, non-energy pipelines, household goods carriers' tariffs, and rate regulation of non-contiguous domestic water transportation (marine freight shipping involving the mainland United States, Hawaii, Alaska, Puerto Rico, and other U.S. territories and possessions). |
| **traffic engineering** | The engineering specialty that deals with planning, geometric design, and traffic operations of roads, streets, and highways. It includes their networks, terminals, parking areas, abutting land uses, and relationships with other modes of transportation for safe, efficient, and convenient movement of persons and goods. |
| **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 and transportation processes. |

| TERM | DEFINITION |
| --- | --- |
| **U.S. DOT FHWA** | A Federal organization under the U.S. DOT that assists States in highway construction and improvements. At the direction of Federal emergency and transportation officials or a State governor, the U.S. DOT FHWA administers the highway portion of the emergency transportation operations for disasters, regulates traffic on public highways during national emergencies, controls movements through dangerous areas, clears priority traffic over routes with limited capacity, or evacuates areas in time of a natural disaster or national emergency. |
| **vertical clearance** | Unobstructed distance from the road surface to the height needed on the IDHS to accommodate the majority of DoD's oversized movements. |

# REFERENCES

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United States Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices," current edition[2]

United States Code, Title 10, Section 2864

United States Code, Title 23, Section 210

United States Code, Title 50

Unified Command Plan, current edition

[1] Found on https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Documents/MUTCD_DOD_Supplement_Revision_20150601.pdf

[2] Found on https://mutcd.fhwa.dot.gov/