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MILITARY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND, TRANSPORTATION ENGINEERING AGENCY (SDDCTEA)

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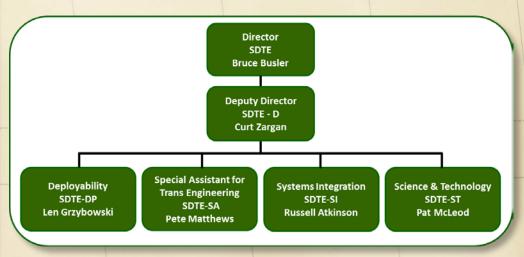
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# Overview

The Military Surface Deployment and Distribution Command (SDDC) is a unique Army command that delivers world-class, origin-to-destination distribution solutions. Whenever and wherever Soldiers, Sailors, Airmen, and Marines are deployed, SDDC is involved in planning and executing the surface delivery of their equipment and supplies.

SDDC is the Army Service Component Command of the U.S. Transportation Command (USTRANSCOM) and is a major subordinate command to Army Materiel Command (AMC). This relationship links USTRANSCOM's Joint Deployment and Distribution Enterprise and AMC's Materiel Enterprise. The command also partners with the commercial transportation industry as the coordinating link between Department of Defense (DoD) surface transportation requirements and the capability industry provides.

The Transportation Engineering Agency (TEA) is a subordinate organization within SDDC and operates as a fully integrated component of the USTRANSCOM Joint Distribution Process Analysis Center (JDPAC). There are four divisions within TEA: Deployability; Office of the Special Assistant for Transportation Engineering; Systems Integration; and Science and Technology. DoD Directive (DoDD) 4510.11, DoD Transportation Engineering, establishes policy and assigns responsibilities for DoD Transportation Engineering to SDDCTEA. The Multi-Service Army Regulation (AR) 55-80, OPNNAVINST 11210.2, AFMAN 32-1017, MCO 11210.2D and DLAR 4500.19, DoD Transportation Engineering Program, further defines authorities and responsibilities for Transportation Engineering.



## **Deployability Division**

The Deployability Division shapes the military by using sophisticated modeling, simulation, transportation engineering, operations research, and analytical expertise to improve the deployability of U.S. Armed Forces. The Division evaluates the transportability characteristics of military materiel to ensure equipment moves safely and efficiently by current or future transportation assets. The Division conducts transportation engineering analyses of multi-modal nodes and networks that support power projection. The Division assesses force deployability with complete, time-phased, origin-to-destination analysis of force closure that considers limitations and capabilities of the Defense Transportation System, transportability of individual equipment items and continental United States/outside continental United States (CONUS/ OCONUS) infrastructure. The Division conducts programmatic analyses to establish the requirements for strategic transportation capabilities and assets. There are two branches within this division: Deployability Analysis Branch (DPA), and the Transportability Engineering Branch (DPE).

#### **Deployability Analysis Branch**

Deployability is the capability of an entire force (personnel and cargo) to move from origin to destination in the deployed theater. DPA also assists deployment planners in the development and refinement of the Time Phased Force Deployment Data during deliberate planning, crisis action planning and exercises. DPA supports combatant commanders (CCDRs) by employing sophisticated modeling and simulation software to do an end to end assessment of the transportation plan to include detailed modeling of each segment; origin, CONUS movement, inter-theater strategic movement, and intra-theater tactical movement. DPA also assesses the effectiveness of nodes and routes; theater lift assets required; and potential bottlenecks, constraints and reception, staging, onward movement, and integration. DPA has dedicated personnel to support each of the major warfighting CCDRs. DPA provides the core analytic capability for USTRANSCOM to participate and lead major DoD mobility studies, the last being the Mobility Requirements and Capabilities Study (MRCS) / Mobility Capabilities Assessment (MCA) completed in 2013. In between major DOD level mobility studies, DPA maintains a current and coordinated assessment of enterprise-level mobility requirements.

#### Transportability Engineering Branch

At the very foundation of force deployability is equipment transportability. Transportability Engineers work closely with requirements writers and equipment developers, including defense contractors, program managers and other government organizations, throughout the acquisition life cycle, to influence the design of systems in favor of efficient transportability per DoD Instruction (DoDI) 4540.07, Operation of the DoD Engineering for Transportability and Deployability Program and Army Regulation (AR) 70-47, Engineering for Transportability Program.

The Transportability Engineering Branch evaluates every aspect of an item's transportability characteristics, including: weight, dimensions, lifting and tiedown provisions, interface with required transportation assets and infrastructure, and structural integrity. This mission is accomplished by employing advanced virtual simulations and through participation in live testing. Efforts ensure that equipment design facilitates rapid force deployment. Once the equipment successfully indicates it meets its transportability requirements, a transportability approval per AR 70-1, *Army Acquisition Policy* and materiel release per AR 700-142, *Type Classification, Materiel Release, Fielding and Transfer* is provided.

## Special Assistant for Transportation Engineering

The Special Assistant for Transportation Engineering (SATE) provides executive level oversight of the Programs for National Defense and advises the SDDC Commander on transportation engineering policy matters. The Office of the SATE executes the Programs for National Defense behalf of on DoD through USTRANSCOM. The National Defense programs include: Highways, Railroads, and Ports for National Defense which develop defense transportation engineering policy in concert with USTRANSCOM and Office of the Secretary of Defense (OSD). Additionally the Office of the SATE is responsible for related transportation programs and services including the Defense Access Road Program, Traffic Engineering Program, Infrastructure Analysis Branch, and the Transportation Geo-Spatial Information System (TGIS). DoD Directive 4510.11, DoD Transportation Engineering, establishes policy and assigns responsibilities for DoD Transportation

Engineering to SDDCTEA. The Multi-Service Regulation AR 55-80, OPNNAVINST 11210.2, AFMAN 32-1017, MCO 11210.2D and DLAR 4500.19, *DoD Transportation Engineering Program*, defines the authority for these programs. The programs include:

- ☑ Defense Access Roads (DAR) Program
- ☑ Highways for National Defense (HND)
- Railroads for National Defense (RND)
- ✓ Ports for National Defense (PND)
- ☑ Transportation Infrastructure Branch
- ✓ Transportation Geo-Spatial Information System (TGIS) – formerly Intelligent Road/Rail Information Server (IRRIS)
- ✓ Traffic Engineering (TE) Program

#### **Defense Access Roads**

The DAR Program provides the legal means for DoD to pay its fair share for public highway improvements that are made necessary by sudden or unusual defense-generated impacts. These impacts are such that DoD cannot reasonably expect State and local authorities to plan for in their normal highway improvement programs.

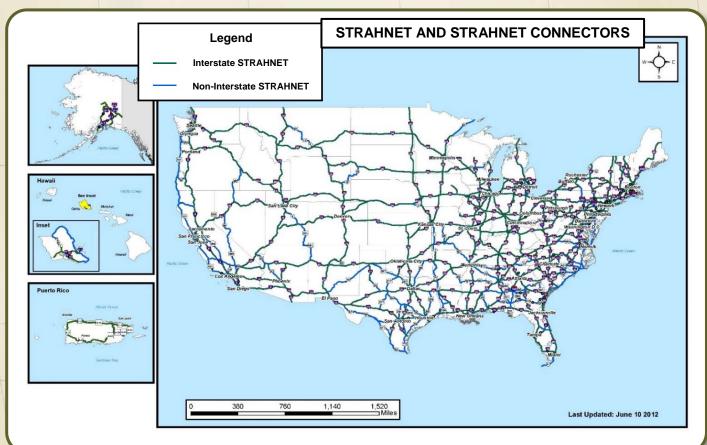
SDDC is responsible for determining what highway improvements are eligible for the DAR program. The Federal Highway Administration (FHWA) jointly administers the program with SDDC and connects DoD to the State and local authorities, who execute the projects. The DAR Program provides the conduit for military construction (MILCON) defense funding to be spent by the State on behalf of the DoD by certifying the public highway project as important to national defense. DoD is then authorized to transfer funds to the FHWA who with the DAR Program works with the State and/or county to execute the public highway project for DoD.

#### **Highways for National Defense**

In accordance with 32 C.F.R. § 193, it shall be the policy of the DoD to integrate the highway needs of the national defense into the civil highway programs of the various State and Federal agencies and cooperate with those agencies in matters pertaining to the use of public highways and in planning their development and construction.

In order to fulfill the mission of SDDCTEA, the two most important functions of highway systems are to:

☑ Identify the minimum public highway infrastructure that DoD needs to fulfill its mission; then integrate



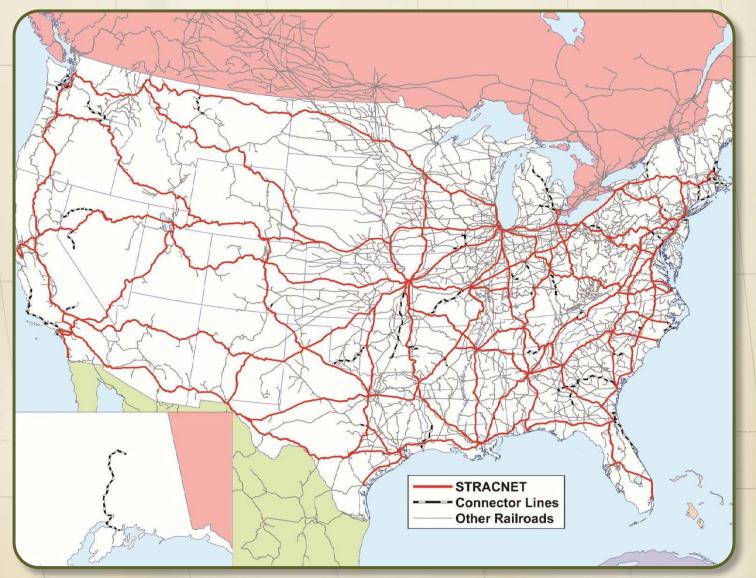
- these public highway needs into civil policies, plans, and programs.
- ☑ Ensure the defense readiness capability of public highway infrastructure and establish policy on how DoD uses the public highway system.

HND works with the Military Services, major commands, military installations, ports, U.S. Department of Transportation, FHWA, the American Association of State Highway and Transportation Officials (AASHTO), State transportation departments (DOTs), and Congress to accomplish these goals. HND collaborates with these external and internal partners to ensure the programmatic needs of DoD are integrated into transportation programs, to address the safe and prudent DoD use of public highways, and as necessary address specific issues between the two partner sets.

In addition, HND addresses policy inquiries and provides guidance on safe and efficient DoD use of the public highway system. As needed, HND assists the military in highway movement problems primarily related to convoy clearances and oversize/overweight permits, and works to ensure the military and the traveling public can interact in a safe and efficient manner.

HND has identified DoD's public highway needs in the Strategic Highway Corridor Network (STRAHNET). STRAHNET is a system of over 62,000 miles of highways, including the Interstate System. The system includes the "last mile" of STRAHNET Connectors that link important military installations and ports to major components of the STRAHNET. Together, STRAHNET and the connectors define the total minimum public highway network necessary to support Defense deployment needs.

#### **STRACNET**

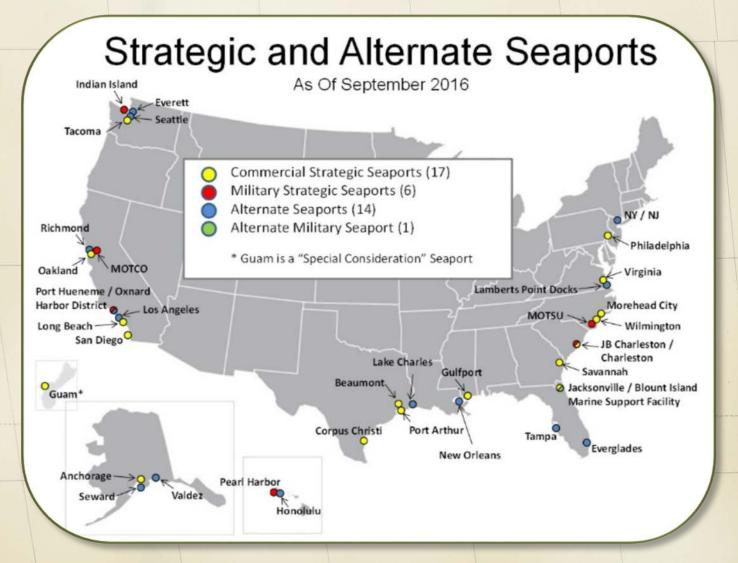


#### Railroads for National Defense

The RND Program ensures the readiness capability of the national railroad network to support defense deployment and peacetime needs. The Program integrates defense rail needs into civil sector planning affecting the Nation's railroad system. Rail transportation is extremely important to DoD since our heavy and tracked vehicles will deploy by rail to seaports of embarkation. The RND Program, in conjunction with the US Federal Railroad Administration (FRA), established the Strategic Rail Corridor Network (STRACNET) to ensure DoD's minimum rail needs are identified and coordinated with appropriate transportation authorities. STRACNET is an interconnected and continuous rail line network consisting of over 36,000 miles of track serving over 120 defense installations. RND works with State DOTs, the Association of American Railroads, the Surface Transportation Board, the American Railway Engineering and Maintenance of Way Association, the FRA, and individual railroad companies to protect this railroad infrastructure.

#### Ports for National Defense

The PND Program's primary mission is to identify and assess the adequacy and responsiveness of defenseimportant CONUS port infrastructure to support DoD deployment requirements. PND does this by maintaining comprehensive PND studies for each of the 23 designated Strategic Seaport and each of the 15 identified Alternate Seaports. These PND studies evaluate the sufficiency of port access (highway, rail, and water), port infrastructure (gate, roads, berths, material handling equipment, etc.) and cargo throughput capabilities to meet DoD's needs. Additionally, PND works with SDDC port commanders to identify alternatives to overcome infrastructure and/or equipment shortfalls and resolve any port-related issues. PND also provides timely engineering analysis of Strategic Seaports during exercises or deployment operations. PND provides SDDC with the engineering expertise necessary to validate operational strategies and advocate for proposed port infrastructure improvement plans. This expertise enables SDDC and USTRANSCOM



to better influence funding decisions in a fiscally constrained environment. PND worked very closely with the U.S. Maritime Agency (MARAD) and other partner agencies/organizations of the National Port Readiness Network to manage the Strategic Seaport Program.

#### **Transportation Infrastructure**

The SDDCTEA Transportation Infrastructure Branch performs transportation infrastructure capability assessments and engineering analysis worldwide primarily in support of the USTRANSCOM En Route Infrastructure Master Plan, Army Power Projection Program, and Combatant Command Theater Posture Plans. The Infrastructure Branch also performs distinctive customer-defined analysis/studies on an as needed basis. Guidance and tools in support of the SDDC Installation Outload Capability Collection are also a branch responsibility.

Types of studies performed by the Infrastructure Branch include:

- ▼ CONUS Installation Air and Surface Deployment Studies
- ☑ CONUS Depot Ammunition Deployment Studies
- OCONUS Airfield and Seaport Capability Assessments

Reports may be accessed or requested through the SDDCTEA website:

https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/Pages/TransportationInfrastructure.aspx

#### **Transportation Geo-Spatial Information System**

TGIS is a geospatial mapping tool that integrates transportation logistics and infrastructure data from military, government and commercial data sources that include:

- ✓ Department of Defense
- ✓ National Geospatial-Intelligence Agency
- ☑ Federal Railroad Administration

In addition to providing data about U.S. highways, bridges, military installations, and seaports, TGIS also provides near-real-time and relevant information about road conditions, construction, incidents and weather. By providing mapping and geospatial capabilities supporting mission management the system allows decision makers

to visualize and effectively manage the movement of cargo transported over land and sea throughout the world. The TGIS mapping engine is an industry standard GIS tool set that supports all Defense and Intelligence content description, cartographic, and data format standards and provides spatial analysis, data analysis and capability interoperability with other DoD systems.

Request access to TGIS via SDDCTEA <u>website:</u> https://www.irris.tea.army.mil/AccessRequest/AccessRequest.aspx)

Enterprise GIS Catalog is a directory service for anyone with a Common Access Card (CAC) to find and share upto-date GIS data. In addition to providing access to all TGIS layers, features include:

- ✓ Layer data service endpoints in ArcGIS Server REST, ArcGIS Server SOAP, WMS and WFS format to connect to data directly from other applications
- ☑ Exporting layers as a KML or SHP file
- ☑ Pointing to other shareable data via a hyperlink
- ☑ Searching key words and browsing by category, source, or tag

Enterprise Map Viewer is a configurable, compact, portable and flexible way to view organization-specific GIS data by anyone with a CAC. In addition to providing access to all catalog layers, features include:

- Adding layer data via service endpoints in ArcGIS, KML and GeoRSS formats
- ✓ Uploading a KML or SHP file
- Geo-fencing and event reporting
- Routing
- ☑ Searching key words and bookmarking locations

#### Traffic Engineering Program

SDDCTEA functions as the DoD proponent for overall DoD traffic engineering coordination, technical assistance, and development of installation traffic engineering studies [AR55-80]. The mission of the TE Program is to improve safety and efficiency on DoD installation road networks and entry control facilities (ECFs) or access control points.

This is accomplished through publishing guidance documents such as bulletins and pamphlets; providing training seminars; conducting traffic engineering studies; developing online engineering software; providing

technical assistance; and conducting research supporting safety and efficiency.

- ✓ Traffic Engineering and Highway Safety Bulletins: Bulletins focus on specific issues from a broad range of transportation and safety topics. Previous Bulletins are available online <a href="https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Pages/bulletins.aspx">https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Pages/bulletins.aspx</a>
- Pamphlets: SDDCTEA has developed three pamphlets for assisting installation personnel with various aspects of traffic engineering.
  - Pamphlet 55-8, Traffic Engineering Studies Reference.
  - Pamphlet 55-15, Traffic and Safety Engineering for Better Entry Control Facilities.
  - Pamphlet 55-17, Better Military Traffic Engineering.
- ✓ Traffic Engineering and Safety Seminars: SDDCTEA Traffic Engineering and Safety Seminars provide guidance on traffic engineering and safety considerations along roadways, intersections, and at entry control facilities. Information is also provided on planning, design, and operations of entry control facilities, considering security, safety, and traffic requirements.

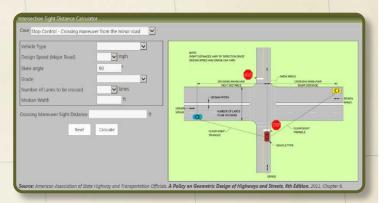
The TE program's engineering services include roadway planning, geometric design, engineering guidance, and contract assistance. There are three overall types of studies: In House, Comprehensive, and Quick Studies. In House studies are of limited scope where the installation advises of their most pressing problem locations. Recommendations are provided to correct deficiencies, and generally include low-cost improvements that are within installation funding capabilities. Comprehensive studies may address 10 or more intersections, as well as ECFs, access roadways, master planning issues, speed limits, pedestrian safety, and access management. Quick Studies are of limited scope or with a quick duration that are performed with an existing task order between SDDCTEA and their engineer. These typically cover intersections, ECFs, safety, or pedestrian issues.

## SDDCTEA's Traffic Engineering Online Resources

SDDCTEA's TE program provides resources for a number of different functions located on their website: https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Pages/bulletins.aspx

#### Better Military Traffic Engineering

Better Military Traffic Engineering (BMTE) training modules are a training tool for conveying traffic engineering fundamentals in an easily accessible format. BMTE's calculators are an easy reference for traffic engineering projects. Training modules and calculators



are available for several traffic engineering-related areas:

- ☑ Signs & Markings
- Signals
- ✓ ECFs
- ✓ Parking
- Roadside Safety
- Intersections

#### SMART Decision Evaluator

The purpose of the ACP/ECF SMART Decision Evaluator software is to help decide the optimal configuration for an ACP. Numerous scenarios are evaluated to help right-size the number of ID check lanes, with the optimal number of guards, in order to minimize construction and operating costs; minimize and environmental effects; obtain an acceptable maximum vehicle queue length; and obtain the greatest reasonable level of service in terms of overall delay to entering vehicles.

The ACP/ECF SMART Decision Evaluator software aims to assist ACP/ECF planners in assessing the impacts of their decisions by:

- ☑ Providing a comprehensive perspective of various ACP/ECF issues
- Providing the ramifications of different scenarios

The ACP/ECF SMART Decision Evaluator software uses common engineering, security and economic principals and compares various metrics for different processing methods and ID check lanes. The purpose of the user guide is to outline and describe the capabilities and requirements of the ACP/ECF SMART Decision Evaluator software as well as the background calculations used.

## Systems Integration

The Systems Integration Division is responsible for supporting TEA's Global Defense Transportation Engineering efforts by developing and managing deployment/distribution and transportation modeling, simulation and analysis tools; managing acquisition and distribution of authoritative transportation data; and managing/coordinating TEA's information technology (IT) infrastructure capabilities.

Functions include: Modeling and Simulation, Data Management, and Information Technology.

#### Modeling and Simulation

SDDCTEA develops and uses several modeling and simulation tools to support Deployability Engineering and Analysis. These state-of-the-art planning and analysis tools model in detail the interaction of the infrastructure and transport systems with the detailed transportability characteristics of the force (units and equipment). They include the following tools for analyzing military-related worldwide movement requirements:

- ☑ Transportability Analysis Report Generator (TARGET) is a TEA tool used for force deployment planning and analysis. TARGET is one of the primary applications within SDDC's Integrated Computerized Deployment System (ICODES), a suite of transportation planning and management web applications. **TARGET** combines detailed transportability characteristics of military equipment with military unit Tables of Organization and Equipment (TOEs) to calculate the transportation characteristics of units of interest, as well as the numbers of transportation assets required to deploy selected units by various modes of transportation.
- Analysis of Mobility Platform (AMP) is DoD's model of record for all major mobility programmatic

analyses since 1995. It includes a suite of models representing military-related deployment and distribution, from detailed airport and seaport nodal simulations to worldwide, end-to-end simulations and optimizations. AMP is also the model of record for CCMD theater Reception, Staging, Onward Movement, and Integration (RSO&I) analysis related to deliberate planning, is supporting end-to-end deliberate planning for various use cases, and is being used within USTRANSCOM's Fusion Center to prepare optimized notional strategic air mission schedules within the Command's Enterprise Executable Plans.

- AMP Port Analysis Tools (AMP-PAT) is a comprehensive suite of tools for port analysis. There are three tools for seaport analysis and three for airport analysis; these include both detailed, stochastic simulations as well as quick-look throughput analysis tools.
- ✓ Joint Mobility Closure Estimator (JMCE) is a USTRANSCOM-developed tool that estimates force closure over time and highlights potential mobility issues. From editable, user-specified inputs including deploying combat forces and available strategic mobility lift assets (air and sea), it quickly evaluates both the feasibility and risk associated with various force employment strategies. Movements are inter-regional and allow multiple origin regions to a single region.
- Rapid Course of Action (COA) Analysis Tool (RCAT) is part of the AMP suite and is a quick-look transportation COA tool which provides situational awareness and decision support to mission planners through advanced cognitive based visualization technology, providing benefits within three generalized areas:
  - Comprehension: For users without appreciable strategic transportation experience, enhances insights into the impact of controllable variables on transportation performance.
  - Communication: Enables depiction of transportation options through multiple trade-off scenarios in collaboration with transportation customers.
  - Course of Action (COA) Development and Exploration: Mission planners can very quickly explore and visualize a large number of potential COAs for decision makers to better inform them on potential solutions.

#### **Data Management**

Data Management includes Equipment Characteristics Data and Transportation Infrastructure Data.

The Division's Equipment Characteristics Data team manages and maintains the Joint Equipment Characteristics Database (JECD), to include the acquisition and validation of equipment characteristics data for use by US military services, unified and specified Commanders, and OSD to support deployment and distribution planning, analysis and execution. Data elements managed include weights, dimensions, airlift certifications by the Air Mobility Command and Civil Reserve Air Fleet, and item imagery (photograph, line drawing, or computer-assisted design images).

The JECD includes Army Table of Organization and Equipment (TOE) end-items, Navy Table of Allowance (TOA) equipment for the Naval Construction Force (NCF), most major end-items in the Supply Bulletin (SB) 700-20 (Army Adopted/Other Items Selected for Authorization/List of Reportable Items), and several Air Force items. Staff, command, and field organizations use the data for standard reference in developing and reporting movement requirements. The data supports Army and Joint strategic deployment planning, forming the basis for characteristics within the Army portion of the Joint Planning and Execution System (JOPES) Type Unit Characteristics (TUCHA) reference file. SDDCTEA publishes equipment data within Technical Bulletin (TB) 55-46-1 STANDARD CHARACTERISTICS (DIMENSIONS, WEIGHT, AND CUBE) FOR TRANSPORTABILITY OF MILITARY VEHICLES AND OTHER OUTSIZE/OVERWEIGHT EQUIPMENT (IN TOE LINE ITEM NUMBER SEQUENCE), and also provides online query capability through its JECD management system, accessed here. (https://www.sddc.army.mil/sites/TEA/Functions/Systems Integration/DataAndSysManagement/Pages/EquipChara cteristicsData.aspx)

The Division's Transportation Infrastructure Data team uses advanced geographic information system (GIS) and imagery exploitation tools to build, analyze, and maintain multimodal transportation network databases in support of the Agency's deployment and distribution engineering and analysis mission. Data sets include roads, rail, bridges, tunnels, airports, seaports, military installations, and waterways. Our infrastructure data team leverages National Geospatial-Intelligence Agency (NGA), COCOM, commercial, and other data sets in the preparation of transportation networks consumable by the Agency's modeling and simulation tools (e.g., AMP). The team also applies civil engineering principles to determine road and

The goal of FDDA is to provide senior leaders in the Joint Deployment and Distribution Enterprise (JDDE) with information and recommendations to shape the future JDDE.

bridge capacities in support of Agency analyses and COCOM requests for information.

#### Information Technology

SDDCTEA relies heavily on advanced engineering and analysis software applications to perform its mission, to include government and commercial modeling and simulation, GIS, and computer-aided engineering (CAE) tools. The Division's Technology Branch is responsible for ensuring Agency engineers and analysts have IT solutions necessary to support these compute-intensive special purpose applications, as well as its office applications. This branch determines and analyzes IT requirements, develops potential solutions, and acquires, inventories, installs, and maintains hardware and software solutions to support the Agency mission. The team also provides user support through consultation and training, to include software engineering analysis and support.

# Science and Technology

The Science and Technology (S&T) Division explores promising current and future technologies to support deployment and distribution (D2) operations while strengthening current core capabilities in surface transportation. In SDDC's role of providing required surface transportation D2 enhancements to DoD, the command requires an integrated S&T strategy addressing identified capability gaps. SDDC accomplishes this through a process which prioritizes those gaps for funding while continually attempting to leverage the government, commercial, and academic S&T communities. These efforts provide global surface mobility support, integrated surface transportation deployment/redeployment solutions, and connects USTRANSCOM Research, Development, Test & Evaluation efforts with the Army S&T Program; seeking transformational changes in force projection and sustainment concepts and capabilities across the full spectrum of operations. Highlights from

fiscal year 2015 on specific programs are contained below.

## Future Deployment and Distribution Assessment (FDDA)

FDDA is a perennial research and analysis effort to assess and catalog needed deployment and distribution (D2) capabilities and technologies of interest focusing on the extended planning period and beyond. FDDA is a means for the Joint Deployment and Distribution Enterprise to explore promising technologies that may support rapid projection, sustainment, and reconstitution of forces.

The objectives of FDDA objectives are:

- 1. Synthesize future capability gaps in the JDDE,
- 2. Identify solutions that fill gaps or offer leap-ahead improvements in D2 capabilities,
- Evaluate utility of solutions and technologies in support of transforming forces and operational concepts, and
- 4. Provide forum and process to shape efforts and enhance JDDE capability.

Results of each FDDA shape the next assessment. As future challenges arise, solutions emerge, technologies mature, and concepts change, the FDDA process is in place to continually focus efforts toward the JDDE Future. Four iterations of FDDA have been conducted and the fifth is currently in development. Each FDDA is summarized below.

- ✓ FDDA I, Mobility Lift Platforms (2011)
- FDDA II, Joint Operational Access Concept (2012)
- ✓ FDDA III, Future Sea Access (2013)
- ▼ FDDA IV, Synchronizing for Future Global Distribution (2014)
- ▼ FDDA V, Deployment and Distribution in a Contested Environment, is currently at the end of Phase 2 of four phases. Phase 1, was an antiaccess/area-denial "study of studies," and concluded in August 2015. Phase 2 is framing the effects of a contested environment in four use cases: prepositioning, port damage and repair, distributed basing, and capital assets. Phases 3 and 4 will identify and assess innovative solutions providing needed capabilities in the use cases. Estimated completion is December 2016.

#### Massachusetts Institute of Technology Lincoln Laboratory (MIT LL)

MIT LL began support to USTRANSCOM in August 2011 and assists in the development of enterprise-wide deployment and distribution optimization capabilities in support of a future living plan concept. The goal is to architect and prototype an analytic framework to support USTRANSCOM's evolving operational processes and applications. This analytic architecture will shape supporting IT layers that provide information services technology, data integration, and cyber security; and recently focused on data sciences.

## Planning, Scheduling, and Execution Optimization Storyboards (OSBs)

The S&T Division in collaboration with MIT LL continues development of a series of storyboards. The storyboards were designed to shape consensus and understanding of the long-term optimization vision and identify capability gaps and redundancies that will inform follow-on acquisition efforts.



Mr. Bruce A. Busler, SES Director, Transportation Engineering Agency

## **Contact Us**

# MILITARY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND,

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WEBSITE: http://www.sddc.army.mil/sites/tea for

pamphlets, bulletins and studies

## Reference List

- ▼ TEA Home: http://www.sddc.army.mil/sites/tea
- ✓ For Traffic Engineering publications:
  <a href="https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Pages/default.aspx">https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/Pages/default.aspx</a>
- ✓ For Deployability Analysis publications (CAC required): <a href="https://www.sddc.army.mil/sites/TEA/Functions/Deployability/DeployabilityAnalysis/Pages/def-ault.aspx">https://www.sddc.army.mil/sites/TEA/Functions/Deployability/DeployabilityAnalysis/Pages/def-ault.aspx</a>
- ✓ For Transportability publications: <a href="https://www.sddc.army.mil/sites/TEA/Functions/Deployability/TransportabilityEngineering/Pages/default.aspx">https://www.sddc.army.mil/sites/TEA/Functions/Deployability/TransportabilityEngineering/Pages/default.aspx</a>
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  <a href="https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B">https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B</a>
  <a href="https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B">https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B</a>
  <a href="https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B">https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/TrafficEngineeringBranch/B</a>
- ✓ For access to the Joint Equipment Characteristics Database: <a href="https://www.sddc.army.mil/sites/TEA/Functions/SystemsIntegration/DataAndSysManagement/Pages/EquipCharacteristicsData.aspx">https://www.sddc.army.mil/sites/TEA/Functions/SystemsIntegration/DataAndSysManagement/Pages/EquipCharacteristicsData.aspx</a>