

DoD Future Personal Property Program August 2002

## **Executive Summary**

The Department of Defense's (DoD) personal property program spends more than \$1.7 billion annually for the movement and storage of household goods. This equates to more than 500,000 moves a year. The Military Traffic Management Command (MTMC) is responsible for the program's business processes that support program execution while the military departments, DoD agencies, and the U.S. Coast Guard are responsible for day-to-day operational matters. The current program is more than 30 years old and, as it is currently structured, does not provide military Service members with the quality service they deserve. Consequently, for more than eight years, DoD has been testing and evaluating various program improvements.

Recently, the U.S. Transportation Command (USTRANSCOM) sponsored a study to look at the three most recent pilot programs testing various initiatives for feasibility, cost, and service. The USTRANSCOM study results and other e-business initiatives form the basis for the reengineered personal property program.

The CINC USTRANSCOM in a letter dated 17 June 2002 to the Deputy Secretary of Defense tasked the Commander Military Traffic Management Command (MTMC) to establish a Program Oversight Office to work with the Services and industry to develop an implementation strategy, based on the framework contained in the report. MTMC initiated this effort and held a three-day meeting at the Logistics Management Institute the first week of July wherein over 50 representatives from the Services, industry and MTMC attended. Integrated Process Teams were formed and have held weekly meetings since then. MTMC representatives have had one-on-one briefings at the 06 level and with the three industry associations. These meetings have been very successful and although there is not total agreement with the recommendations that follow, there is large consensus with what is presented here.

The DoD Future Personal Property Program (DFPPP) intends to streamline the personal property business process and adopt best business practices. The result

will benefit the DoD, its Service members, and the moving industry. Following is a list of key features of the reengineered DFPPP:

Full-replacement value protection for lost or damaged property.

Best value distribution of DoD personal property business.

Direct claims settlement between Service members and the transportation provider.

E-commerce billing and payment using PowerTrack.

Direct communication between Service members and the transportation provider.

Customer satisfaction surveys.

These features complement already implemented MTMC initiatives that revise DoD financial and electronic data submission standards. These standards will provide DoD with quality movers and improved service. Close consultation with the moving industry including the American Moving & Storage Association, Household Goods Freight Forwarders of America, Inc., and the Military Mobility Coalition will result in material benefits of time, quality, and monetary savings for government and industry.

The scope of the DFPPP initiative expands personal property service levels beyond those in place today. Consequently, economies of scale, marketplace response, and other factors are in play to develop cost estimates to roll the program out DoD-wide. This cost analysis, based on historical data and assumptions where the data does not provide analytically supportable information, indicates that the DFPPP will be roughly 13 percent more than the current program costs. Total costs drop more as claims against the government decline. This recognizes that associated claims costs are funded through the Services' Operations and Maintenance accounts while transportation costs are funded through the military Services' personnel accounts. These cost projections reflect a marked reduction from the evaluation of the pilot programs conducted by USTRANSCOM. The major difference is that the size and complexion of the pilot programs did not match those of the DoD as a whole.

The DFPPP significantly improves processes throughout the Personal Property Program. Initiatives already in place include higher cargo liability insurance and performance bonds. These are commercial practice. Best-value distribution of DoD personal property moves will reward quality while also recognizing that costs must be reasonable. With the implementation of full replacement value protection and improved transportation provider financial strength, Service members, their families, and the government will no longer absorb claims losses, which have exceeded \$100 million annually.

The DFPPP will seek to increase direct delivery as well as expand the initiative to allow Service members to directly discuss all aspects of their move with the transportation provider. These initiatives will require DoD to improve move counseling. The DFPPP will build on the Navy's Smart WebMove web-based counseling as a complement to personal counseling. The DFPPP's web-based infrastructure will combine commercial off-the-shelf and government off-the-shelf applications and provide essential forms and information for service members and industry alike. This shift to a web-based infrastructure will reduce indirect costs associated with legacy personal property systems.

The use of PowerTrack as the billing and payment standard provides benefit to all parties. Business processes must be changed to rectify shortcomings experienced by industry and government in the pilot programs. The DFPPP will allow partial payment of invoices as well as audit of charges. This permits transportation providers to receive payment faster and the government receive timely insight into its expenditures. This is particularly useful for shipments that go into Storage in Transit (SIT). When a shipment enters SIT, it not only causes hardship for the service member, it also increases costs to DoD. The use of PowerTrack and webbased automation will allow DoD to better manage this controllable item.

The DFPPP will change all aspects of the personal property program from the solicitation of rates to the increased involvement of the service member in the evaluation program. The magnitude of change in this program mandates a phased implementation that will require the active participation of the military Services, military members, and industry to achieve the program's vision. PowerTrack will be on-line by 4QFY03 and the domestic/international programs in place by 1QFY05, providing Services take necessary steps to provide funding.

After years of testing, evaluating, and studying, the DFPPP provides a way ahead towards the reengineering of a 30 year old process. To be successful, change management must occur across a wide spectrum of players to include various elements within the DoD, military Services, and industry. While adjustments will certainly have to be made, the DFPPP provides the key features, implementation timelines, and cost projections for budgeting purposes that will enable DoD age ncies, the military departments and the U.S. Coast Guard, to program the DFPPP in their respective Program Objective Memorandums. The time for change is now.

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#### BACKGROUND

The Military Traffic Management Command (MTMC) manages the Department of Defense (DoD) \$1.7 billion Personal Property Program, and it is responsible for moving more than 500,000 Government Bill of Lading (GBL) shipments annually for the military Service departments, DoD agencies, and the U.S. Coast Guard. The DoD Future Personal Property Program (DFPPP) intends to streamline the process and bring the Personal Property Program into alignment with ongoing transportation reengineering and business improvement initiatives to include incorporating best-value procurements.

DoD uses more than 1,200 transportation providers to move and store the household goods of military Service personnel. Management of such a vast number of providers has resulted in complex processes to qualify carriers, solicit rates, distribute traffic, evaluate performance, pay bills, and settle claims. In addition, this complex process results in poor service from movers, excessive incidence of loss or damage to Service members' personal property, and high claims costs to the government. Frequently, the processes result in unsatisfactory service for Service members and their families, causing increased levels of stress, frustration, and dissatisfaction with military life.

Since 1994, DoD has been actively pursuing various initiatives to improve the shipment of household goods for Service members and their families. To accomplish the goal of improving the current program, DoD established a plan to simultaneously test and evaluate the results of three pilot programs and incorporate best government and industry practices into one reengineered process. These programs included the MTMC Pilot Program, the Sailor Arranged Move Program (SAM) and the Full Service Moving Project (FSMP) and the Hunter Pilot. The Office of the Secretary of Defense (OSD) asked the U.S. Transportation Command (USTRANSCOM) to evaluate all the personal property pilots and provide a recommendation for the future DoD Personal Property Program. The evaluation is complete, and its report was provided to OSD on 17 June 2002. Based on the USTRANSCOM evaluation, MTMC was tasked to establish a Program Oversight Office to work with the Services and industry to develop an implementation strategy based on the framework of the report. The DFPPP is the result of that tasking.

#### **PURPOSE**

This report establishes a framework for the DFPPP to capitalize on the successful aspects of the pilot programs and incorporate industry and government best practices, where practical. The report includes a plan of action with timelines (Appendix A)

accompanied by rough order of magnitude of cost projections for Service programs and budgeting (Appendix B). Based on the results of the USTRANSCOM analysis, fixing the program and limiting cost increases requires that DFPPP focus on three specific areas: (1) streamlining the claims/liability process; (2) improving transportation provider performance through performance based contracting; and (3) implementing an integrated movement management system.

The goal to use cutting-edge technology and best business practices to build a single, paperless Joint Service Personal Property Program that integrates and automates all processes that support a personal property move. The program will be customer focused, simple to use, and contain features to continually assess customer satisfaction and provide metrics.

In the DFPPP, the World Wide Web will serve as the Service member's "move manager." Issuance of PCS orders will automatically establish a move account for the Service member on a web-based system. By entry of an account number, the Service member will be able to access all information needed for planning a move, including provision of in-transit visibility of the shipment during the move, the ability to process a household goods (HHG) claim, and access to a virtual help line throughout the process. This capability will build on on-going automation initiatives in the government and commercial sectors and extend web-based initiatives recently instituted by MTMC.

## ACQUISITION PROCESS TO SUPPORT BEST VALUE

#### Solicitation

In the current program, lowest rates are the primary consideration for awarding traffic to transportation providers. Rates are solicited every six months for domestic and international traffic for defined traffic channels or origin and destination pairs. Currently, more than 1,200 transportation providers submit rates for over 11,000 channels, which results in more than two million rate filings a year. For the domestic market, the transportation providers compete by bidding a percentage of the MTMC domestic baseline rate solicitation, while single factor rates are bid for the international market. MTMC also sets the rates for accessorial services for both markets. To further suppress the rates, bidders are given an opportunity to submit "me-too" rates allowing them to match the lowest bidder.

After the final rates are established, Personal Property Shipping Offices (PPSOs) verify that potential transportation providers identify their local agents to service their traffic awards by channel through a "Letter of Intent" (LOI), and that the providers have a Total Quality Assurance Program (TQAP) score of 90 percent or above to be eligible for traffic award.

Proposed changes for the DFPPP are intended to streamline processes for industry and the government, embrace best business practices, and simplify rate manage-

ment and filing. It is recognized that the DoD Personal Property Program contains three distinctive markets: domestic household goods (dHHG), international household goods (iHHG), and international unaccompanied baggage (iUB). In addition, there are sub-programs that include Non Temp Storage, Direct Procurement Method, One-Time-Only, special solicitation, and volume moves which need to be phased in after the three major market programs. The program's vision for each market is outlined in this section by move categories.

#### **Domestic Household Goods**

The domestic program will adopt the contemporary commercial tariff in effect when the program is implemented. The 400N tariff has been reviewed to determine if certain items must be deleted or modified to meet the Department's needs. MTMC will reserve the right to readdress this issue closer to implementation to ensure the Department's concerns are addressed.

The tariff will be frozen for a period of 12 months. Before the May 1 effective date of each annual rate cycle, MTMC and industry will identify any needed changes in the base tariff and announce these changes prior to transportation providers' annual rate bid submission. Industry-proposed changes will require justification and approval by MTMC.

The DFPPP will solicit two discounts off the tariff. The first discount will apply to applicable tariff items except Storage In Transit (SIT) and SIT-related items; the second discount applies to SIT charges. The transportation provider will submit discounts only for the established channels where it intends to compete. A channel consists of a state to a destination region, except for California, Florida, and Texas, which will be divided for origin services. The CONUS destination regions are defined as the 13 regions established under the MTMC pilot program, Alaska, and intrastate. The basis for traffic award will be discounts to the tariff and the transportation provider's quality scoring of its previous DoD moves.

#### **International Household Goods**

The DFPPP will build on the current program to structure a more streamlined process for the future international program. Currently, there are eight codes of service for iHHG and iUB shipments. Each code of service identifies a different shipment method, which may not be necessary. Combining codes of service and identifying shipments as iHHG or iUB moving by either air or surface may simplify the booking process for the PPSO. The specifics of the iHHG and iUB market segments follow.

The movement of iHHG is characterized by multiple codes of service (3, 4, 5, 6, and T) that refer to different methods of movement, levels of responsibility, and time standards. These codes of service and the rates associated with the codes complicate iHHG management for industry and government. The intent will be to identify the current use of commercial airlift or sealift where available and mili-

tary airlift and sealift where required. In military airlift and sealift, there will be defined, shared industry/government responsibility. The current use of Single Factor Rates (SFR), but with fewer codes of service, will continue in the DFPPP. Transportation providers will submit rates annually to include rates for peak and non-peak seasons. The effective date of the rate cycle will coincide with the peak season rate cycle identified in the domestic program, which is effective 1 May each year. DoD will attempt to consolidate regions, in cooperation with the industry, where practical. The result will be rates that are solicited from each state except Alaska, California, Florida, and Texas (which will be divided) to a destination country or region. Accessorial charges also will be consolidated for simplification. In the current program some accessorials are payable according to individual area of responsibilities based on the counties or rate areas where service is performed. In addition, in the current program some accessorial charges differ from the international and domestic solicitations, even when service is performed in the same CONUS location. At a minimum, DFPPP envisions that charges for the same services provided in CONUS for international shipments mirror those in the domestic program.

#### International Unaccompanied Baggage

International unaccompanied baggage provides Service members with minimum essential items pending delivery of the iHHG shipment. This makes its delivery a critical element of a Service member's move. The current iUB program includes the use of the SFR, which will continue in the DFPP. Transportation providers will submit rates annually to include rates for peak and non-peak seasons. The effective date of the rate cycle will coincide with the peak season rate cycle identified in the domestic program, which is effective 1 May each year. These rates will be solicited from a state to a country or region. The intent is to reduce as much as possible the current multiple codes of service for iUB (codes J, 7, and 8). This, too, will entail the use of commercial airlift or sealift where available and government airlift and sealift when required. As with iHHG movement, iUB will require defined guidelines when use of the Defense Transportation System (DTS) is required. These guidelines will specify performance, liability, and quality standards applicable to the shipments moving in the DTS. Finally, accessorial simplification also will be applied to iUB in a manner consistent with iHHG.

### Other Move Categories

There are aspects of current business practices concerning Direct Procurement Method (DPM), non-temporary storage (NTS), mobile home and boat movement, volume move, One-Time-Only (OTO) and personally procured move (PPM) that will continue with modification. The specialized nature of these practices, small numbers of shipments annually, or shipment size <sup>1</sup> require that the PPSO have an optional method of moving shipments. This also provides maximum flexibility for

<sup>&</sup>lt;sup>1</sup> DPM shipments are usually small shipments 500 pounds or less which the transportation office may not be able to pick up any other way.

the PPSO during peak shipping season. There are also issues associated with DPM that include the lack of a single responsible party for the shipment, liability questions, and performance monitoring; however, these special categories will be accommodated in the new automation process.

#### DIRECT PROCUREMENT METHOD

The nature of DPM shipments, small shipments of 500 pounds or less, and the shipment destination (e.g., Diego Garcia or Guantanamo Bay) make continued use of DPM advisable in the short-term and perhaps the long-term. The DFPPP, with industry input, will resolve shipment issues such as responsibility, liability, performance monitoring, and alternate means to move shipments to unique locations. While DPM has not been reviewed for inclusion in this report, it will be reviewed for the DFPPP.

#### SPECIAL SOLICITATION

Currently, there are nine special solicitation areas. Some of these areas have enough traffic to constitute a rate area (e.g., Kuwait, Canada, Bahrain, Thailand, and Singapore). With new business processes in place and web-based automation, the DFPPP will accommodate the new rate areas without additional workload. The expectation is that some special solicitations, such as the channel between Quantico, Virginia to American embassies, or to and from South America, would continue as a special solicitation because of low traffic volumes and the unique requirement. While the special solicitations category has not been reviewed for this report, it will be reviewed for the DFPPP.

#### ONE-TIME-ONLY

OTO shipments are required when moving to an overseas rate area where there are no rates in either the International Through Government Bill of Lading Program (ITGBL) or the special solicitation program. These shipments require a different procedure because some of these areas receive or ship fewer than 10 shipments a year. The current program requires that a transportation provider submit a separate approval request for this program. In addition, these shipments are not scored in TQAP. Thus, there is no way to protect the best interest of the Service member or the Department against transportation providers when service does not meet standards. The DFPPP will allow transportation providers to service these shipments without additional approval processing. Their performance will be measured as part of their total international quality measure. While OTO has not been reviewed for inclusion in this report, it will be reviewed for the DFPPP.

#### VOLUME MOVES

Volume moves are used when a confirmed group of individuals is moving from the same origin to the same destination within a prescribed timeframe. Currently, MTMC solicits a one-time request to obtain a better rate for the entire group or volume. The DFPPP will conduct a complete review of this area to identify where process modification or simplification is possible. While the category of volume moves has not been reviewed for inclusion in this report, it will be reviewed for the DFPPP.

#### INTRA-THEATER

MTMC offers intra-theater rates under the current rate solicitation. MTMC-Europe also offers rates at the local level. Because this is a duplicate effort, the DFPPP will embrace use of intra-theater rates offered by MTMC-Europe. Consequently, HQ MTMC will solicit rates only where MTMC-Europe and MTMC-Pacific do not have established rates.

#### Non-Temporary Storage

DoD's NTS Program currently provides long-term storage using an acquisition process that awards based on low cost. Currently, four Regional Storage Management Offices (RSMOs) manage all NTS. RSMO responsibility consists of oversight for 6,456 warehouses and 1,185 DoD Basic Ordering Agreements (BOAs). The shipping offices order NTS using these BOA's. The future NTS program will be reengineered to incorporate a simplified/streamlined best value acquisition process that results in fewer contracts, improves the use of warehouse capacity, and reduces administrative costs. The contractor will be responsible for some aspect of traffic management in addition to physically maintaining the shipment in storage.

This will result in the government leveraging its buying power, reducing the administrative cost associated with the current NTS process and incorporating best value in the contracting process. The future payment process will require the contractor to invoice payments using PowerTrack. This same NTS concept of operation will be applied later to reengineer the DPM program.

#### Personally Procured Move

Each military Service controls, issues guidance, and handles the reimbursement of personally procured HHG/mobile home/boat moves. MTMC presently publishes the rate solicitations, which local bases use to estimate costs for Service members' advance or reimbursement. The future program will use either the rate solicitation (international) or tariff (domestic) to do the base-level comparisons for OCONUS and CONUS locations.

## QUALITY ASSURANCE AND BEST VALUE

## Qualification of Transportation Providers

The foundation of a successful DFPPP is a comprehensive, fair, timely, and effective quality assurance effort. Quality assurance is the basis for transportation provider qualification and traffic distribution. Transportation provider qualification will ensure that the DoD is serviced by companies that are strong financially, bonded, insured, licensed as appropriate by the Surface Transportation Board, and have the necessary experience to satisfy DoD requirements. Participation will be open to all companies that meet qualification criteria. The intent is to provide a level playing field for all participants.

The DFPPP will build on recent changes to DoD transportation procurement processes that strengthen qualification requirements (financial stability, insurance, experience, and performance bonds). Transportation providers will also be required to provide notification when change of ownership occurs or when key personnel enter or leave the company.

#### Performance Metrics

The current Total Quality Assurance Program is labor intensive and requires significant manual documentation from industry and government (transportation providers and PPSOs). Quality currently is measured by on-time pickup, on-time delivery, and estimated loss and damage. These metrics do not incorporate customer satisfaction nor do they provide precise, consistent results. This process is labor intensive and requires extensive paperwork when loss and damage occur. DFPPP performance metrics will replace this antiquated process.

Because traffic distribution in the DFPPP is based on best value (BV) (70 percent performance and 30 percent price), customer satisfaction surveys are critical to program success. These surveys will be based on questions established by the Task Force Fix initiative. A third party (either internal or external) will administer the surveys using a sampling methodology with timely response windows and defined minimum response participation standards. MTMC also plans to pursue completion of surveys by the Service member on the web. Performance metrics will be developed for the three distinct market segments (dHHG, iHHG, iUB) and include performance factors such as claims, responsiveness, and level of service.

#### Traffic Distribution

The primary means to ensure that the Service members experience grade-A moving services is to shift from the current low-cost transportation provider selection criteria to one that embraces best value. Best value combines performance with costs to provide the desired level of service. This means that the DFPPP may cost more than the current program; however, the offsets gained by improved service

and customer satisfaction will minimize the actual dollar amount expended. This outcome is in stark contrast to the current traffic distribution methodology that results in poor quality service that leads to higher-than-normal levels of loss and damage. The current use of low rates to select the transportation provider results in DoD shipments receiving a low priority by transportation providers during the peak-shipping season when most DoD Service members move. This too affects customer satisfaction. DFPPP will build on the methodology used during the pilot programs, which is a combination of performance and price, as the basis for shipment distribution to transportation providers. Following are elements of the performance-price methodology:

Shipments will be distributed to transportation providers that are top ranked based on BV, determined by combining two weighted factors: 70 percent for performance survey scores and 30 percent for rates. The concept is to provide traffic to high quality carriers.

A list of BV transportation providers will be created on the following basis:

- ➤ A BV score will be calculated for each transportation provider for each market (dHHG, iHHG, iUB).
- ➤ Transportation providers will be ranked based on the BV scores.
- ➤ MTMC will establish a BV score that represents "quality" transportation providers.
- ➤ Shipments will be distributed among transportation providers that meet or exceed the "quality" BV score. A winner take all distribution process will not be used.

The performance surveys will be scored monthly. If a transportation provider falls below "quality" score, status is reevaluated.

The initial domestic and international transportation provider rankings will be based on the collection of performance data before the initial program rollout, and current cycle rates.

Customer satisfaction surveys will be conducted by a third party or completed by the Service member on the web.

Transportation providers that fail to meet quality standards will not be awarded traffic and will not be allowed to use other venues to participate in the program.

#### Other Quality Features

#### DIRECT CUSTOMER/TRANSPORTATION PROVIDER COMMUNICATION

The current program does not promote communication between the transportation provider and Service member. In the current program, the Service member makes all moving arrangements with the PPSO at origin. If there are any changes throughout the course of the move, the Service member contacts either the origin or destination PPSO as appropriate, who in turn contacts the transportation provider's agent. In addition, there is a requirement in today's program to clear inbound shipments before delivery or placement into SIT with the PPSOs, which limits the transportation provider's ability to perform direct deliveries, especially during peak moving season. If the PPSO cannot contact the Service member within the prescribed timeframe, the shipment normally enters SIT. This can place undue hardship on the Service member and family because during peak moving season, shipment deliveries from SIT can take several days, weeks, or even months. Finally, the current process has created a mindset where the PPSO will not assist Service members with checking on the status of a shipment until the required delivery date has passed. This prevents the member from learning early on that there may be a problem with the shipment, and/or effect a direct delivery request. This is particularly important in international moves. The DFPPP will overcome these shortcomings by promoting and instituting early and continuous contact between the Service member and the transportation provider.

The pilot programs permitted the Service member and PPSO to have direct contact with the transportation provider to determine shipment status. This direct contact proved to be a great asset. It allowed the Service member to speak directly with the transportation provider to make adjustments to the pick up or delivery date, provide or change addresses, and change member contact information. The transportation provider worked directly with the member to affect direct delivery of the household goods shipment, when appropriate. This direct contact also allows the transportation provider to offer alternative delivery dates at the member's option. Further, during the transportation provider's pre-move survey process, the contractor has the opportunity to brief the Service member on the movement process and establish Service member expectations.

The DFPPP builds upon the positive aspects of the pilot programs. It will require transportation providers to establish a dedicated toll-free number for customer inquiries and problem resolution during any phase of the move. Industry participants will have web-based tracking systems in the future. Transportation providers will provide a web site for Service members to obtain shipment status. For some in industry this is a new concept; close coordination with non-automated elements of the household goods industry will be necessary. Where toll free capability is not available, the transportation provider will accept collect calls, provide calling cards, or provide other means to communicate with the Service member. The intent is to provide knowledgeable response to customer concerns within 24 hours from the initial inquiry, except on weekends or holidays.

#### PICKUP/DELIVERY AGREEMENT

The DFPPP will incorporate use of spread dates (when members agree to allow transportation providers to pickup or deliver a shipment within a window of days rather than on a specific day). Commercial business practice uses spread dates for pickup, delivery, or both. It gives the transportation provider flexibility in shipment routing, thus potentially reducing SIT and associated costs. In addition, use of spread dates will provide benefits to the Service member by avoiding possible multiple handling of their shipment, thereby reducing the chance for loss or damage and the use of SIT. Use of the spread dates concept is new to the DoD and will require a culture change to effect. Also, it will be necessary to have precise date options as the situation warrants.

#### DIRECT DELIVERY

Expanding use of direct delivery (door-to-door move) is an important initiative that will require a change in the way DoD currently does business. Both the military Services and the Service members see SIT as an entitlement and portray it as good thing. Today Service members are not made aware of the problems associated with shipments going into SIT. They are not counseled that placing shipments in SIT can result in loss or damage to their property and in many cases can result in delayed delivery to residence during peak moving periods. In addition, it is sometimes difficult to facilitate a direct delivery because Service members are not allowed to apply for base housing until they arrive at destination. Currently DoD spends approximately \$200 million annually for SIT. While some SIT will always be needed, ways to drive down these costs by promoting more direct deliveries, using of spread dates, and educating the Service members through improved counseling must be identified. Service policies that inhibit the use of direct delivery need to be changed. These include restrictive housing processes, personnel PCS policies, etc. In order to take advantage of direct deliveries, coordination between the Service member and the transportation provider is essential. Both parties must keep the other informed of any change that could affect the ability to either deliver or accept the household goods as agreed. Direct communication between the Service member and the transportation provider are part of the program. This initiative will reduce the occurrence of SIT, reduce damage claims, and provide DoD Service members with high quality moves.

### LIABILITY/CLAIMS PROCESS

Another major objective of the DFPPP is to reduce loss and damage experienced by the Service member. This costs Service members, their families, and the government more than \$100 million annually. When loss or damage occurs, the Service member will use an automated, streamlined, consistent claims process based on direct communication between the transportation provider and the Service member. Throughout the process, the Service member retains the ability to file a loss or damage claim with the government.

#### Full Replacement Value Protection

The DFPPP embraces the concept of providing full replacement value protection (FRVP) for loss, damage, or destruction of personal property for carrier settlements. This was tested in the pilot programs, and Service member survey responses indicated that this was a "hot button" quality-of-life issue for Service members. The baseline survey indicated that the top five Service member "pain points" were associated with the condition of the Service member's property and fair compensation for lost or damaged items. In the current program, the Service member receives depreciated coverage that, in many cases, does not fairly compensate for the loss and damage. Based on the success of FRVP coverage in the pilot programs, the DFPPP will provide for FRVP based on \$4 per pound times the net weight of the shipment up to a maximum of \$50,000. If the loss is greater than \$50,000, the government makes up the difference.

#### Claims Filing

In the current program, the process of filing a claim and receiving compensation from the service provider for monies due to the government can be time intensive for both the Service member and the claims services. Pilot results have shown that filing the claim directly with the transportation provider reduces the time to complete the entire process because it eliminates or reduces the need for recovering monies due the government. In addition, the Service member will have an incentive to file with the transportation provider because the recovery value to repair or replace lost, damaged, or destroyed property will be higher if handled by the transportation provider rather than by the government.

In addition, the current process requires the Service member to use duty time to obtain repair estimates and replacement costs. In the DFPPP, the transportation provider will be responsible for arranging timely cost estimates to repair or replace lost, damaged, or destroyed personal property. The Service member retains the right to appeal the transportation provider arranged estimate. Therefore, the DFPPP expects Service members to resolve most claims directly with the transportation provider. The Service member retains the right to file a claim with a military claims office under the Personnel Claims Act, but the Service member must file first with the transportation provider within nine months of delivery to preserve the right to receive FRVP.

### **Quick Claims Settlement**

There is no provision for a quick claims settlement in the current program. As an enhancement to the claims process, the DFPPP will allow the transportation provider to institute a quick claims settlement process if desired. This is a feature industry uses to further customer satisfaction through expedited claims settlement. When a Service member uses a quick claims settlement, it will not count as a claim against the transportation provider.

#### **Shared Claims Responsibility**

The nature of DoD distribution channels makes it certain that the DTS will be used to move some iHHG and iUB to OCONUS locations because other non-military transportation options may not exist. In these cases, questions about the split of liability between the transportation provider and the government for settling claims arise. The DFPPP supports the current memorandum of understanding in effect concerning the 50/50 split in liability in those cases when the property moves through the DTS and the party responsible for the loss or damage cannot be identified. To allow for FRVP of the member's property, the current memorandum of understanding must be amended to reflect the increased protection.

#### INFORMATION SYSTEMS TECHNOLOGY

Another essential element of the DFPPP is the requirement to implement information systems technology improvements. The time has come to leverage technology and modernize management of personal property movement and storage within the DoD. Information technology (IT) for the future Defense Personal Property System (DPS) must ensure effective integration of plans, programs, projects, automated systems, and system operations using a wide range of information management disciplines and transportation functional component and subsystems. The future DPS will provide a centrally managed umbrella architecture where implementation capability will be performed in a network, information-centric web-based environment.

These improvements are based on three underlying premises. The future process will be web-based, eliminate use of paper as a goal, and use U.S. Bank Power-Track as the payment system. A web-based information system permits world-wide implementation with minimal expense. It also permits easy access to small businesses that might not otherwise have the means to compete. The system must provide the means to pay for all segments of the DoD personal property program to include NTS, DPM, and OTO. The elimination of paper realizes that current and emerging business processes are embracing this concept as a best business practice that will simplify processes for both industry and government. The short-comings identified during the pilot programs will be corrected in the DFPPP, resulting in a significantly improved business process for industry and government.

### End-to-End Systems Development

The key to successful systems development is to provide government and industry with a system that will be simple to use and economical to operate. A web-based system allows for distributed use without imposing barriers on use or setting up restrictive entry criteria. The objective system will be modular, using best-of-breed commercial-off-the-shelf (COTS) or government-off-the-shelf (GOTS) software applications. The end-to-end system must accommodate all aspects of

personal property to include SIT and NTS, customer survey entry and feedback, claims preparation, entitlements counseling, loss and damage metrics, a direct feed to PowerTrack, and the ability to interface with industry systems.

Considering these objectives, a DFPPP working group consisting of MTMC, Service components, and industry members has determined that redesign of the current Pilot-Transportation Operational Personal Property Standard System (PTOPS) should serve as the end-to-end baseline system. The expectation is that PTOPS will bear a significant return on investment and provide a more responsive, user friendly, web-based, real-time solution to the management of personal property movement and storage requirements. COTS and GOTS software will be integrated with the PTOPS software to form the DPS.

#### **DFPPP** Enterprise Architecture

An early look at the DFPPP enterprise architecture set the stage for the integration of cross-functional, cross-Service information requirements as they relate to personal property shipment and storage. The DFPPP enterprise architecture supports the premise that functional and architectural requirements will drive system migration of development implementations. The architecture provides the context where operational analysis and systems engineering can be integrated to provide logical connectivity from strategic objectives to supporting processes and systems. The DFPPP will be executed through phased implementations driven by the DFPPP enterprise architecture operational view.

The DFPPP enterprise architecture will provide a flexible framework that enhances usability, reliability, scalability, security, and accessibility for personal property customers and customer service providers worldwide. This architecture will support the requirement to provide the infrastructure for the future webbased, real-time, on-line transaction processing (OLTP) applications.

The initial iteration of the DFPPP enterprise architecture has been established independent of emerging personal property business rules, yet it is flexible enough to be tailored and scaled as required when changes occur in the Personal Property Program.

The DFPPP end state will provide one common interoperable picture on any box (platform independent) plugged into a single World Wide Web-based environment (Internet). The DFPPP enterprise architecture is designed to satisfy the enterprise-wide informational needs of its customers. It provides a centrally managed umbrella architecture where implementation of capability will be performed in a network/information-centric environment (web-based).

## **Electronic Billing and Payment**

PowerTrack has been designated as the DoD transportation payment system. Although the transportation provider industry and Services have identified issues

about using PowerTrack, major issues such as workload and the use of a single-approved rating engine have been answered to satisfaction. Business rule changes will fully address all concerns from industry and the Services before systems development, integration, and ultimately activation. The DFPPP has capitalized on the lessons learned from using PowerTrack under freight and Full Service Moving Project (FSMP) to ensure success as we move forward with implementing PowerTrack.

To reach a consensus, the e-Billing/Payment Team worked with industry, the Services, Defense Finance and Accounting Center, General Services Administration (GSA), and U.S. Bank to evaluate model options for future business payment systems and processes. The team evaluated several options, and at the request of industry, the team created process flows and shipment examples for a reengineered matching model and a reengineered shipper-invoicing model. The team reviewed both models with industry, the Services, GSA, and U.S. Bank. After close evaluation, all stakeholders agreed to move forward with the reengineered matching model with the understanding that open issues and process changes would be addressed, documented, and effectively resolved.

#### Reengineered Matching Model

The reengineered matching model allows transportation providers to submit multiple invoices against a single shipper transaction. The expectation is that in the DFPPP, this model will differ significantly from the process used by PowerTrack in the FSMP pilot. While it is not possible to predict the percentage of bills that will be approved automatically for payment using the matching model, the expectation is that DFPPP automatic approvals will be significantly higher than the approximately 50 percent of transactions approved in the FSMP pilot. This will be possible because all transportation provider line haul and accessorial costs will be approved and costed in the DPS before submission to PowerTrack. In addition, the maximum threshold allowed between shipper and transportation provider to affect automatic approval will increase.

Implementation of the reengineered matching model will require a collaborative effort with DPS development. It will also require that industry, the Services, U.S. Bank, and MTMC continue to identify and resolve business process issues. An element of this solution is a pricing system that will incorporate the business processes and rules associated with the program and provide accurate timely cost data. An integral element of the government pricing system is that it will identify potential and actual excess charges that the Service member is responsible for paying. With time, the expectation is that less than 5 percent of DFPPP-related transactions presented for payment will require adjudication.

#### Concept of Operation

An impact analysis is being performed to show the level of effort and timelines associated with each major system capability (module) of a particular business process. The costs and timelines must consider interface/integration with other existing DoD systems (e.g., claims, personnel), as well as costs/timeline comparisons to use a COTS or GOTS product. All systems solution analysis will consider the integration of the product into the current developed web-based systems.

#### Phasing the Program

While it is recognized that the Household Goods Program contains many segments, all share common attributes. By phasing, DoD is able to digest a series of very complex tasks. The Military Services have indicated it is their desire that the three major segments of the market; domestic households goods, international household goods and international unaccompanied baggage, be implemented collectively. There are several sub-programs that include Non Temp Storage, Direct Procurement Method, One-Time-Only, Special Solicitation, and Volume Moves that will be in a follow-on phase. The use of PowerTrack as the billing and payment system will also be part of the phased process. PowerTrack will be implemented in the current program, before phasing of the future program. This will simplify implementation of the DFPPP at the ITO/TMO level.

#### Cost of the Program

The future program increases the quality of service provided to the Service member. Quality has a cost, and the DFPPP is expected to cost more than the current program. Military Services pay the bills associated with moving personal property and need a program that provides quality service at an affordable cost. A cost analysis was conducted focusing on dHHG, iHHG, and iUB. The details behind this analysis, including the assumptions and methodology used, and the resulting cost estimates are provided in Appendix B. Based upon the analysis the program will cost 13 percent more than the current program. This buys a Best Value program geared to satisfy the Service member and their families. The increase is realistic and should be affordable.

#### **SUMMARY**

The DoD Future Personal Property Program described in this document changes many of the traditional processes used by the DoD to manage and execute personal property moves. The final form of DFPPP will result from combined government and industry work products that detail processes and procedures associated with the program. The intent is to implement the DFPPP in phases starting with PowerTrack in 4QFY03, the major programs beginning in 1QFY05, and the remaining programs in 1QFY06. The domestic program is expected to use the contemporary commercial tariff and transportation provider discounts on the

channels they serve. Traffic award will use a non-FAR, best value methodology where performance accounts for 70 percent and rates the remaining 30 percent. The program will be based on a fair and responsive customer satisfaction measurement regime. The DFPPP recognizes that claims and liability issues are closely linked with quality assurance. Thus, go vernment and industry working groups will closely review appropriate issues for mutually satisfactory resolution.

## Appendix A

## Plan of Action and Milestones

The Plan of Action and Milestones (POAM) is a tool to assist in the change management of the process. The attached transition plan identifies a list of essential activities needed to carry out the responsibilities required to build a DoD Future Personal Property Program (DFPPP). The POAM provides the roadmap for the Business Process Working Group (BPWG) and other interested leaders to follow in meeting the program objectives. It also provides a way to monitor progress and identify problems and delays. The POAM is a living document that can be modified and updated frequently to reflect changes in direction, resources, or priorities.

The POAM identifies specific tasks the BPWG needs to accomplish to implement the DFPPP. When completed, these tasks will lead to the timely completion of key milestones. Tasks are largely grouped by the five DFPPP panels as the office of primary responsibility, as shown in the following list:

Acquisition/Solicitation Process

Quality Assurance

Liability/Claims Process

Information Systems Technology

Electronic Billing and Payment.

The left side of the POAM identifies tasks to be completed. The POAM provides each task, information on task duration, start and finish dates, predecessor tasks, and status. A solid blue line on the right side of the POAM shows the start, finish, and duration in a graph. Black diamonds represent milestones.

#### BUILDING THE PLAN

Interviews with functional representatives determined actions required to support the DFPPP standup. Interviews revealed detailed steps, expected time for completion of each task, and information and documentation to provide each organization for their responsibility in completing the task. Based on the interviews, the plan identifies start and end dates for each task and the interrelationship of tasks. For this POAM, we assumed the plan start date is calendar year 2004.

During the interviews, we determined that certain tasks cannot start until others are completed. The predecessor column shows which tasks must be completed before a follow-on task can be started or completed. If completion of a

predecessor task is delayed, the delay of all related subsequent tasks would be reflected in revised timelines.

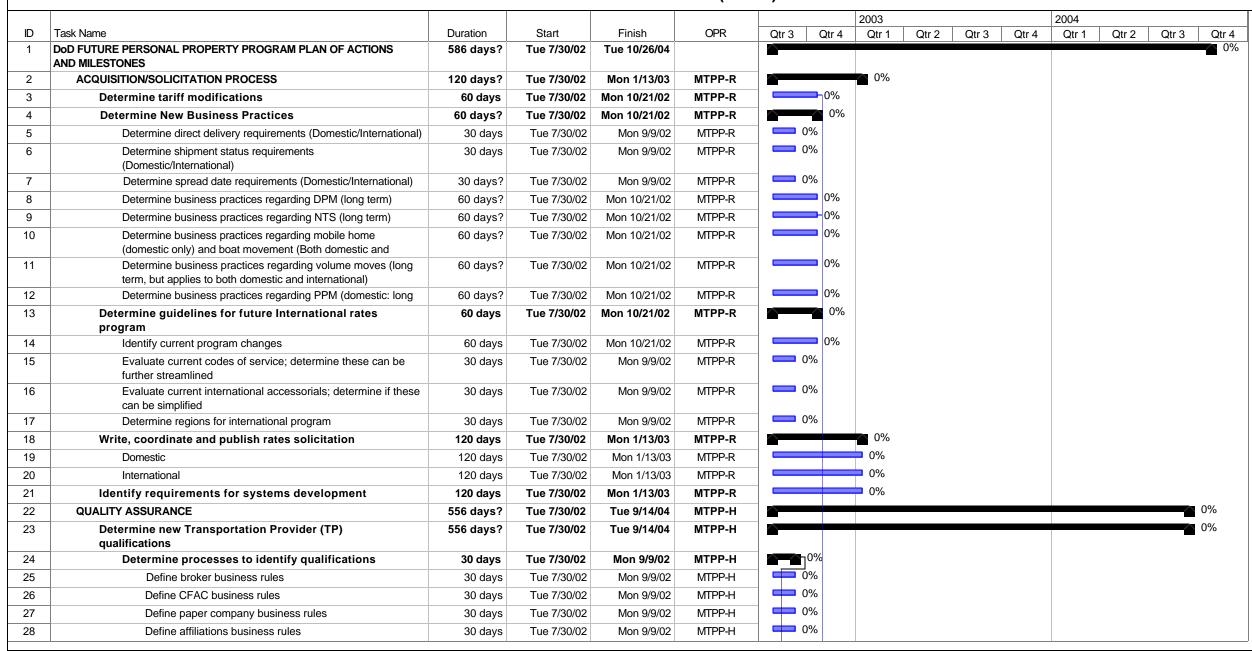
#### CRITICAL PATH

The POAM also identifies the critical path to completion of the DFPPP. The timelines for critical path tasks are in red. The critical path will change as task completion dates are modified.

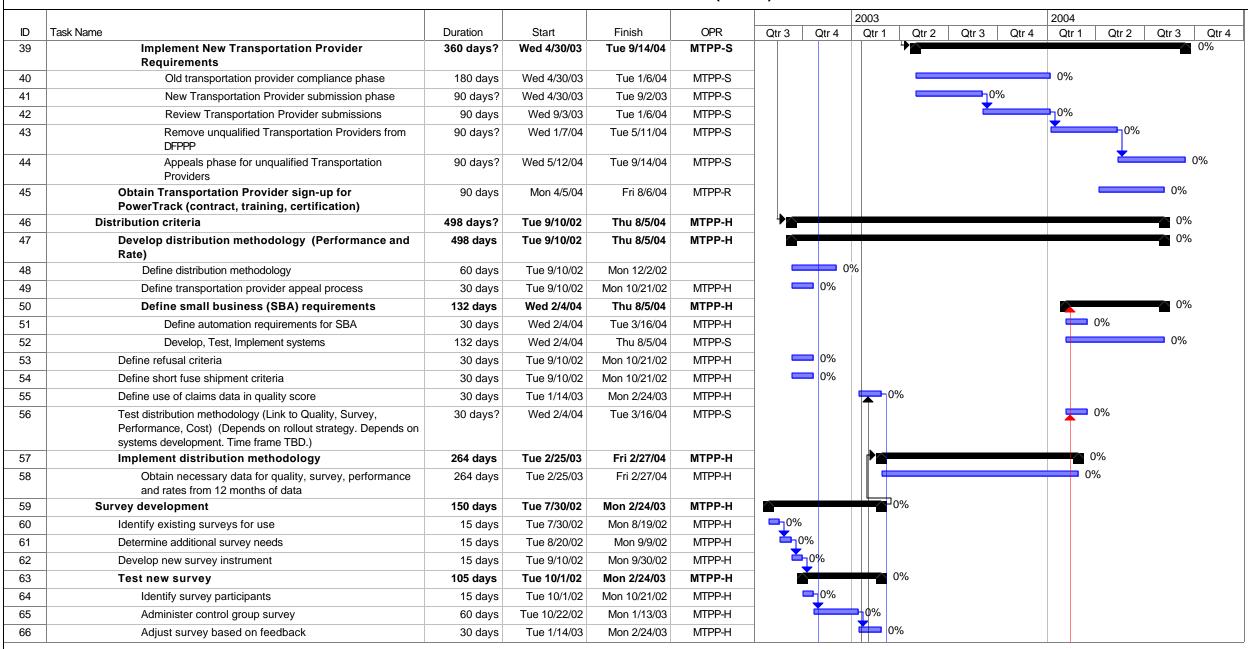
### MONITORING PROGRESS

A status column allows the BPWG to monitor the progress of each task. The status column can show when the task is complete, identify the reason a task is behind schedule, or identify corrective action being taken. By revising task completion dates, the program automatically will update the start and stop dates of any dependent tasks. This way, managers can determine the effect of delays on critical milestones. If a milestone delay is unacceptable, the transition team can recommend corrective action such as adding more resources to speed the task completion time. If the date of a given milestone is not known, the program will mark it as 1 day. This will roll to the top of the program and show a "?" in the duration column for any task that has an undefined duration.

BPWG representatives should meet weekly with internal and external organizations to review transition progress. The BPWG representatives should validate task schedules and milestone dates and explore alternatives for overcoming problems and delays. Revisions to schedules and updates of status can be added to the POAM.



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									2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr
29	Incorporate use of certificate of independent pricing (COIP)	30 days	Tue 7/30/02	Mon 9/9/02	MTPP-H		0%									
30	Transportation Provider Qualification automation requirements (system development)	46 days?	Tue 9/10/02	Tue 11/12/02	MTPP-H			<del>- 0%</del>								
31	Identify automation requirements	45 days	Tue 9/10/02	Mon 11/11/02	MTPP-H	_		0%								
32	Pass requirements to systems team	1 day?	Tue 11/12/02	Tue 11/12/02	MTPP-H			0%								
33	Receive qualification system final product (tied to systems development and rollout)	1 day?	Tue 9/10/02	Tue 9/10/02	MTPP-S	'	0%									
34	Qualify Transportation Providers	480 days?	Wed 11/13/02	Tue 9/14/04	MTPP-H			$\wedge$							$\sim$	0%
35	Announce requirements	120 days	Wed 11/13/02	Tue 4/29/03	MTPP-H			$\wedge$		0%						
36	Federal Register Notice #1	60 days	Wed 11/13/02	Tue 2/4/03	MTPP-H	1			10%							
37	Evaluate responses	30 days	Wed 2/5/03	Tue 3/18/03	MTPP-H	1				0%						
38	Federal Register final announcement	30 days	Wed 3/19/03	Tue 4/29/03	MTPP-H					0%						



							2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3 Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
67	LIABILITY/CLAIMS PROCESS	120 days?	Tue 10/22/02	Mon 4/7/03	MTPP-R			0%						
68	Determine tariff modifications affecting claims/liability	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		)%							
69	Integrate claims data into feedback loop	120 days	Tue 10/22/02	Mon 4/7/03	MTPP-R			0%						
70	Develop business rules for military claims services feedback on claims data	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		)%							
71	Develop business rules for transportation provider feedback on claims data	15 days	Tue 10/22/02	Mon 11/11/02	MTPP-R	0%								
72	Develop business rules for claims data feedback into quality score	30 days	Tue 2/25/03	Mon 4/7/03	MTPP-R			<b>0</b> %						
73	Determine business rules	60 days	Tue 10/22/02	Mon 1/13/03	MTPP-R		0%							
74	NTS - shared liability	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		%							
75	AMC/MSC (International only) - shared liability for FVRP	60 days	Tue 10/22/02	Mon 1/13/03	MTPP-R		0%							
76	Use of high value inventory	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	<b>0</b> %								
77	Claims filing, claims form, claims data reporting	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		%							
78	Inconvenience claims	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	<b>0</b> %								
79	Unearned freight	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	■ 0%								

								2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	
80	Identify requirements for system development	120 days?	Tue 10/22/02	Mon 4/7/03	MTPP-R			<b>—</b>	0%						
81	INFORMATION SYSTEMS TECHNOLOGY	454 days?	Thu 1/30/03	Tue 10/26/04	MTPP-S										
82	Evaluate and recommend COTS/GOTS software and rating engine for adoption	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-S			<b>—</b> 09							
83	Develop RFQ for DFPPP & Award contract for DFPPP automation	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-S				0	%					
84	Requirements analysis workshops and documentation	20 days?	Thu 1/30/03	Wed 2/26/03	MTPP-S			<b>—</b> 09	6						
85	Impact analysis of DFPPP requirements	15 days	Thu 1/30/03	Wed 2/19/03	MTPP-S			<b>0</b> %	)						
86	Design, development, developer testing (Phase 1: initial rollout)	264 days	Thu 1/30/03	Tue 2/3/04	MTPP-S							<del></del>			
87	Design, development, developer testing (Phase 2: Full rollout)	150 days?	Wed 2/4/04	Tue 8/31/04	MTPP-S							#			%
88	Independent verification and validation testing (both phases)	170 days?	Wed 2/4/04	Tue 9/28/04	MTPP-S									1	
89	Phase 1 IVV	20 days?	Wed 2/4/04	Tue 3/2/04	MTPP-S							109	6		
90	Phase 2 IVV	20 days?	Wed 9/1/04	Tue 9/28/04	MTPP-S							∐		Ť	0
91	Training (both phases)	190 days?	Wed 2/4/04	Tue 10/26/04	MTPP-S										-
92	Phase 1 Training	40 days?	Wed 2/4/04	Tue 3/30/04	MTPP-S								0%		
93	Phase 2 Training	40 days?	Wed 9/1/04	Tue 10/26/04	MTPP-S									_	
94	Phased deployment of system	160 days	Wed 3/3/04	Tue 10/12/04	MTPP-S										
95	Phase 1 Deployment	10 days	Wed 3/3/04	Tue 3/16/04	MTPP-S							<b>1</b> (	)%		$\perp$
96	Phase 2 Deployment	10 days	Wed 9/29/04	Tue 10/12/04	MTPP-S										ĭ
97	Electronic Billing	150 days?	Thu 1/30/03	Wed 8/27/03	MTPP-R			$\wedge$		0	1%				
98	Develop CONOPS/Business Rules	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R			$\wedge$	0%						
99	Document the current program processes (in progress)	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<b>—</b> 09	6						
100	Develop Draft end-to-end "to-be" processes and business rules	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
101	Confirm approved monetary threshold/tolerance	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				)%						
102	Coordinate with DPS on requirements	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
103	Coordinate back-end financial processes with DFAS/Coast Guard/Payment Centers	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
104	Domestic HHG	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
105	International HHG	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
106	International UB	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
107	NTS	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				φ%						
108	DPM	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R	1			φ%						
109	Document requirements for PowerTrack and DPS based on business rules developed in first task	15 days?	Thu 4/3/03	Wed 4/23/03	MTPP-R				<b>→</b> 0%						

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ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
110	Develop PowerTrack enhancements	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
111	Determine business practices regarding DPM, NTS, mobile home, boat, OTO, volume, and PPM (long term)	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
112	Accommodate multiple invoices against the same BOL	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
113	Handle two units of measure against the same accessorial	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
114	Possible modifications for short term implementation	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
115	Provide standard reports (excess cost reports) and ad hoc reports for Personal Property in PowerTrack (future	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
116	Provide payment data feed from PowerTrack to the TOPS history database	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
117	Expand product pay rating engine (include HHG accessorials and tracking discounts from different	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
118	Accept rate data feed from TOPS history database into PowerTrack's rating engine files	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						

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ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	2003 Qtr 1	Qtr 2	Qtr 3	Qtr 4	2004 Qtr 1	Qtr 2	Qtr 3	Qtr 4
119	Test PowerTrack enhancements	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R	Quio	Qu +	Qui		Quo	Quit	Qui	QuZ	Quio	Qu T
120	Test individual PowerTrack Enhancements	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<u> </u>	%						
121	Test interfaces with DPS and Carriers	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<b>—</b> 09	%						
122	Develop Phased PowerTrack Implementation/Roll-Out Plan (coordinate with TRANSCOM, Services and Industry)	150 days?	Thu 1/30/03	Wed 8/27/03	MTPP-R					09	%				
123	Facilitate Carrier Sign-up (Federal Registry notice required, coordinate with new Carrier qaulification requirements)	45 days?	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
124	Identify, Train and Appoint Certification Officials	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-R				0	%					
125	Develop Training Program	60 days	Thu 1/30/03	Wed 4/23/03	MTPP-R				0%						
126	Develop training plan	10 days	Thu 1/30/03	Wed 2/12/03	MTPP-R			□0%							
127	Develop training materials	40 days	Thu 2/13/03	Wed 4/9/03	MTPP-R				10%						
128	Identify trainees and schedule training	10 days	Thu 4/10/03	Wed 4/23/03	MTPP-R				<b>i</b> 0%						
129	Train Users (rolling basis, depending on implementation schedule)	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-R				0	%					
130	Confirm Installation and User Readiness (must be completed 30 days prior to implementation)	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
131	Confirm quality of Internet connection	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				)%						
132	Resolve system security concerns	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				)%						
133	Prepare site hardware/software	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
134	Set-up PowerTrack accounts	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
135	Confirm User readiness	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
136	Begin Phased Implementation (dependent on rollout strategy of entire DFPPP (especially DPS)	30 days?	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						

## Appendix B

## Cost Assumptions and Data

## BACKGROUND

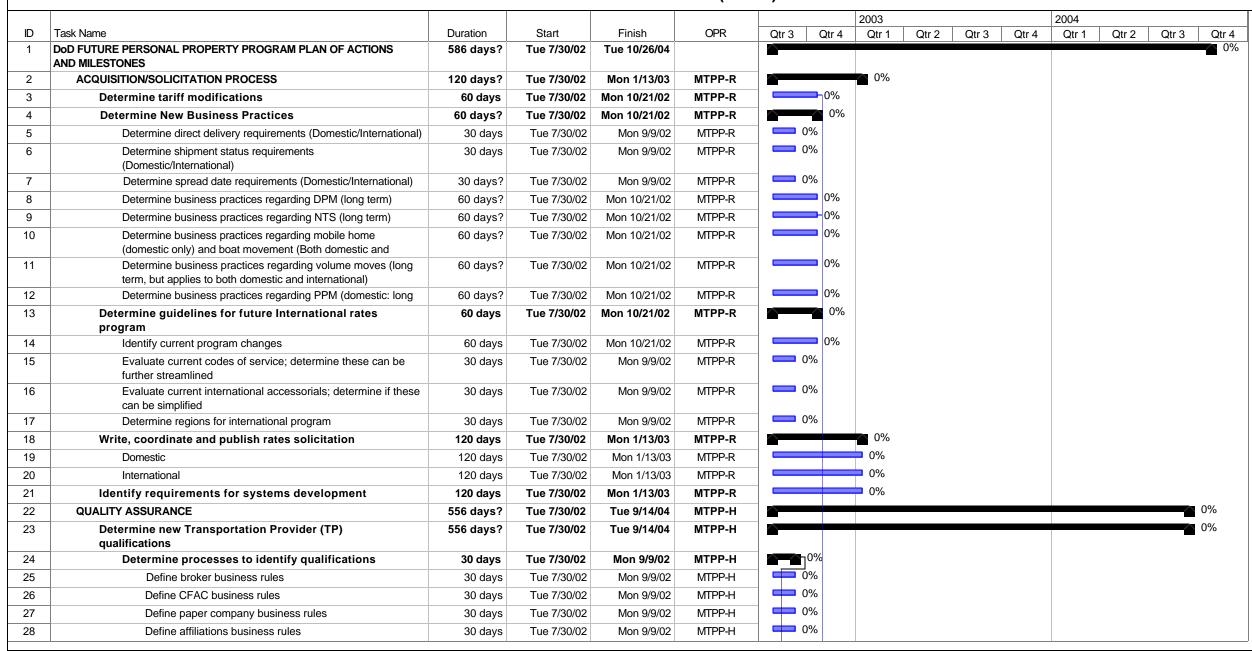
This cost analysis focuses on the three major service categories of the DFPPP, domestic Household Goods (dHHG), international Household Goods (iHHG), and international Unaccompanied Baggage (iUB). The cost analysis builds on analytical work presented in the U.S. Transportation Command (TRANSCOM) evaluation of the Military Traffic Management Command (MTMC) and Full Service Moving Project (FSMP) pilot programs.

In addition, the methodology reviewed the costs associated with the DoD Personal Property Program for FY00 and FY01 as well as a comparison of costs in the current MTMC tariff and the existing 400N commercial tariff. Costs for the DFPPP were developed by extrapolation from the MTMC and FSMP pilot experiences, adjusting for pilot shipment weights, full competition and economies of scale, and application of rate discounts achieved by the General Services Administration (GSA) in its personal property program.

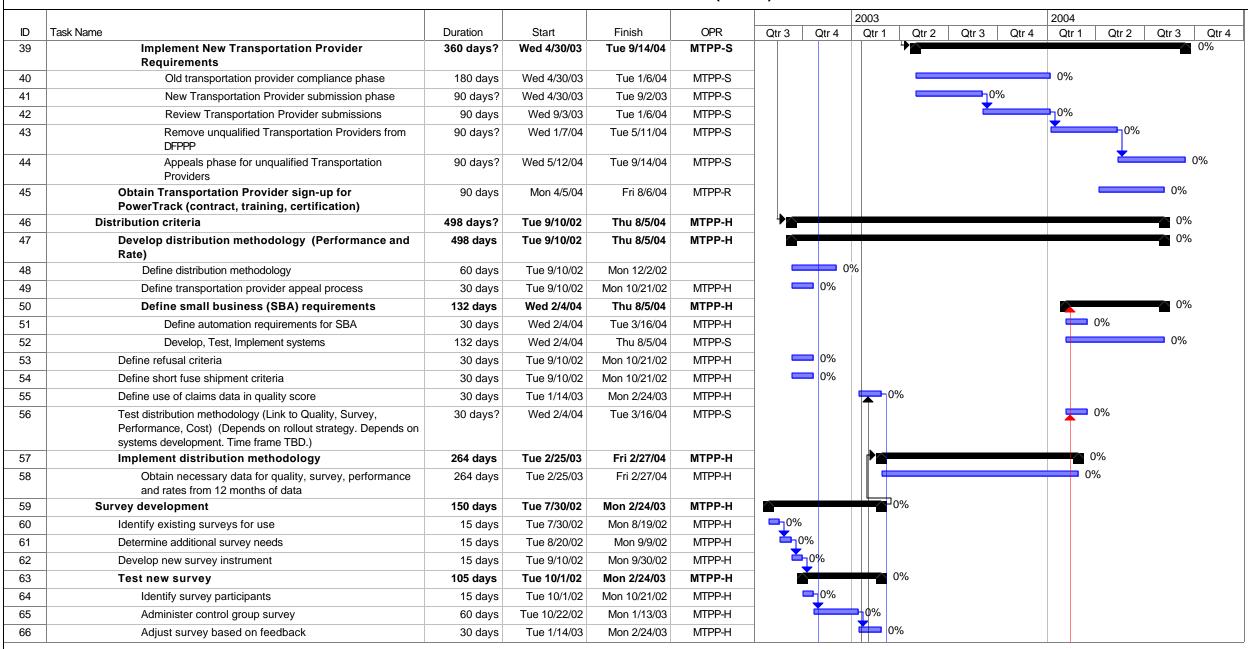
Considering the insights gained from review of previous efforts, the methodology estimates the cost to rollout the DFPPP to apply to all DoD HHG and iUB shipments. In addition, it also estimates the costs the military Services can expect to pay for the DFPPP compared to their current expenditures.

This analysis focuses only on direct shipment costs and not on infrastructure related costs. Direct costs account for about 93 percent of the total cost to move these HHG service categories. The relatively small number of pilot shipments (less than 5,000 shipments in each pilot from a total volume of more than 600,000 shipments annually) does not reflect the general weight and percentage mix of shipment types in the total DoD program. The cost estimation methodology adjusts for these differences in extrapolating the average pilot shipment costs to reflect full rollout.

Due to the short time frame, the number of data sources explored and analyzed was limited. For current program estimates, the analysis relied primarily on FY01 and FY00 Transportation Operational Personal Property Standard System (TOPS) data. This provided estimates of shipment volumes, average costs and weights per shipment by Service and shipment types, and on Service finance center data collected by the PwC Current Program Evaluation Report for total DoD shipments, percentage of shipments by Service, and AMC charge per iUB shipment. For pilot, and DFPPP full rollout estimates, the USTRANSCOM PPP Pilot Programs



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									2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3		Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr
29	Incorporate use of certificate of independent pricing (COIP)	30 days	Tue 7/30/02	Mon 9/9/02	MTPP-H		0%									
30	Transportation Provider Qualification automation requirements (system development)	46 days?	Tue 9/10/02	Tue 11/12/02	MTPP-H			<del>- 0%</del>								
31	Identify automation requirements	45 days	Tue 9/10/02	Mon 11/11/02	MTPP-H	-		0%								
32	Pass requirements to systems team	1 day?	Tue 11/12/02	Tue 11/12/02	MTPP-H			0%								
33	Receive qualification system final product (tied to systems development and rollout)	1 day?	Tue 9/10/02	Tue 9/10/02	MTPP-S	'	0%									
34	Qualify Transportation Providers	480 days?	Wed 11/13/02	Tue 9/14/04	MTPP-H			$\wedge$							$\wedge$	0%
35	Announce requirements	120 days	Wed 11/13/02	Tue 4/29/03	MTPP-H	1		$\wedge$		0%						
36	Federal Register Notice #1	60 days	Wed 11/13/02	Tue 2/4/03	MTPP-H	1			10%							
37	Evaluate responses	30 days	Wed 2/5/03	Tue 3/18/03	MTPP-H	1				0%						
38	Federal Register final announcement	30 days	Wed 3/19/03	Tue 4/29/03	MTPP-H					0%						



							2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3 Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
67	LIABILITY/CLAIMS PROCESS	120 days?	Tue 10/22/02	Mon 4/7/03	MTPP-R			<b>0</b> %						
68	Determine tariff modifications affecting claims/liability	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		)%							
69	Integrate claims data into feedback loop	120 days	Tue 10/22/02	Mon 4/7/03	MTPP-R			0%						
70	Develop business rules for military claims services feedback on claims data	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		)%							
71	Develop business rules for transportation provider feedback on claims data	15 days	Tue 10/22/02	Mon 11/11/02	MTPP-R	0%								
72	Develop business rules for claims data feedback into quality score	30 days	Tue 2/25/03	Mon 4/7/03	MTPP-R			<b>0</b> %						
73	Determine business rules	60 days	Tue 10/22/02	Mon 1/13/03	MTPP-R		0%							
74	NTS - shared liability	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		%							
75	AMC/MSC (International only) - shared liability for FVRP	60 days	Tue 10/22/02	Mon 1/13/03	MTPP-R		0%							
76	Use of high value inventory	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	<b>0</b> %								
77	Claims filing, claims form, claims data reporting	30 days	Tue 10/22/02	Mon 12/2/02	MTPP-R		%							
78	Inconvenience claims	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	<b>0</b> %								
79	Unearned freight	10 days	Tue 10/22/02	Mon 11/4/02	MTPP-R	<b>0</b> %								

								2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	
80	Identify requirements for system development	120 days?	Tue 10/22/02	Mon 4/7/03	MTPP-R			<b>—</b>	0%						
81	INFORMATION SYSTEMS TECHNOLOGY	454 days?	Thu 1/30/03	Tue 10/26/04	MTPP-S										
82	Evaluate and recommend COTS/GOTS software and rating engine for adoption	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-S			<b>—</b> 09							
83	Develop RFQ for DFPPP & Award contract for DFPPP automation	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-S				0	1%					
84	Requirements analysis workshops and documentation	20 days?	Thu 1/30/03	Wed 2/26/03	MTPP-S			<b>—</b> 09	%						
85	Impact analysis of DFPPP requirements	15 days	Thu 1/30/03	Wed 2/19/03	MTPP-S			<b>0</b> %	b						
86	Design, development, developer testing (Phase 1: initial rollout)	264 days	Thu 1/30/03	Tue 2/3/04	MTPP-S							<del></del>			
87	Design, development, developer testing (Phase 2: Full rollout)	150 days?	Wed 2/4/04	Tue 8/31/04	MTPP-S									<del></del> 70	%
88	Independent verification and validation testing (both phases)	170 days?	Wed 2/4/04	Tue 9/28/04	MTPP-S									1	C
89	Phase 1 IVV	20 days?	Wed 2/4/04	Tue 3/2/04	MTPP-S							10%	, o	$\perp$	
90	Phase 2 IVV	20 days?	Wed 9/1/04	Tue 9/28/04	MTPP-S							]		Ť	09
91	Training (both phases)	190 days?	Wed 2/4/04	Tue 10/26/04	MTPP-S										1
92	Phase 1 Training	40 days?	Wed 2/4/04	Tue 3/30/04	MTPP-S								0%	$\perp$	
93	Phase 2 Training	40 days?	Wed 9/1/04	Tue 10/26/04	MTPP-S							<u>                                   </u>		_	
94	Phased deployment of system	160 days	Wed 3/3/04	Tue 10/12/04	MTPP-S										
95	Phase 1 Deployment	10 days	Wed 3/3/04	Tue 3/16/04	MTPP-S							<b>1</b> 0	%		
96	Phase 2 Deployment	10 days	Wed 9/29/04	Tue 10/12/04	MTPP-S										ĭ
97	Electronic Billing	150 days?	Thu 1/30/03	Wed 8/27/03	MTPP-R			$\wedge$			)%				
98	Develop CONOPS/Business Rules	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R			$\wedge$	0%						
99	Document the current program processes (in progress)	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<b>—</b> 09	%						
100	Develop Draft end-to-end "to-be" processes and business rules	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
101	Confirm approved monetary threshold/tolerance	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
102	Coordinate with DPS on requirements	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
103	Coordinate back-end financial processes with DFAS/Coast Guard/Payment Centers	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
104	Domestic HHG	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
105	International HHG	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
106	International UB	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
107	NTS	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				Φ%						
108	DPM	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R	1			Φ%						
109	Document requirements for PowerTrack and DPS based on business rules developed in first task	15 days?	Thu 4/3/03	Wed 4/23/03	MTPP-R				→ 0%						

								2003				2004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
110	Develop PowerTrack enhancements	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
111	Determine business practices regarding DPM, NTS, mobile home, boat, OTO, volume, and PPM (long term)	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
112	Accommodate multiple invoices against the same BOL	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
113	Handle two units of measure against the same accessorial	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
114	Possible modifications for short term implementation	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
115	Provide standard reports (excess cost reports) and ad hoc reports for Personal Property in PowerTrack (future	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
116	Provide payment data feed from PowerTrack to the TOPS history database	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
117	Expand product pay rating engine (include HHG accessorials and tracking discounts from different	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
118	Accept rate data feed from TOPS history database into PowerTrack's rating engine files	45 days	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						

		I	I	I		1		0000				0004			
ID	Task Name	Duration	Start	Finish	OPR	Qtr 3	Qtr 4	2003 Qtr 1	Qtr 2	Qtr 3	Qtr 4	2004 Qtr 1	Qtr 2	Qtr 3	Qtr 4
119	Test PowerTrack enhancements	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R	Quio	Qu +	Qui		Quo	Quit	Qui	QuZ	Quio	Qu T
120	Test individual PowerTrack Enhancements	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<u> </u>	%						
121	Test interfaces with DPS and Carriers	20 days	Thu 1/30/03	Wed 2/26/03	MTPP-R			<b>—</b> 09	%						
122	Develop Phased PowerTrack Implementation/Roll-Out Plan (coordinate with TRANSCOM, Services and Industry)	150 days?	Thu 1/30/03	Wed 8/27/03	MTPP-R					0%	%				
123	Facilitate Carrier Sign-up (Federal Registry notice required, coordinate with new Carrier qaulification requirements)	45 days?	Thu 1/30/03	Wed 4/2/03	MTPP-R				0%						
124	Identify, Train and Appoint Certification Officials	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-R				0	%					
125	Develop Training Program	60 days	Thu 1/30/03	Wed 4/23/03	MTPP-R				0%						
126	Develop training plan	10 days	Thu 1/30/03	Wed 2/12/03	MTPP-R			□0%							
127	Develop training materials	40 days	Thu 2/13/03	Wed 4/9/03	MTPP-R				10%						
128	Identify trainees and schedule training	10 days	Thu 4/10/03	Wed 4/23/03	MTPP-R				<b>i</b> 0%						
129	Train Users (rolling basis, depending on implementation schedule)	90 days	Thu 1/30/03	Wed 6/4/03	MTPP-R				0	%					
130	Confirm Installation and User Readiness (must be completed 30 days prior to implementation)	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
131	Confirm quality of Internet connection	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
132	Resolve system security concerns	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
133	Prepare site hardware/software	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
134	Set-up PowerTrack accounts	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
135	Confirm User readiness	30 days	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						
136	Begin Phased Implementation (dependent on rollout strategy of entire DFPPP (especially DPS)	30 days?	Thu 1/30/03	Wed 3/12/03	MTPP-R				0%						

Evaluation Report was the basis for average cost and weights per shipment by shipment type.

The costing methodology minimizes assumptions, capitalizes on larger samples of historical data wherever possible, and adjusts estimates in a mathematically accurate manner to reflect obvious biases in the smaller samples. The methodology tested estimation assumptions against multiple sources of data wherever possible. In addition, the methodology to isolated and identified the largest cost differences by Service and shipment types (dHHG, iHHG, or iUB); cost categorization allows the program experts and cost analysts to focus their analysis on the largest Service and shipment-type cost differences causing the majority of the total program difference. For example, the cost estimates show that the iHHG shipments comprise only about 26 percent of DoD shipments, but cause 78 percent of the total cost estimate difference between the current program and DFPPP. Much of this higher DFPPP iHHG estimate is due to the large accessorial costs encountered in the small MTMC pilot sample of 286 iHHG shipments.

As designed, the cost methodology allows accurate comparison of program costs despite any possible inaccuracies in certain key variable estimates that may have occurred. For example, the estimated shipment-level of 612,616 DoD shipments annually uses shipment data gathered from Service finance centers in a previous study. This shipment level estimate will directly affect the total program costs of any of our program estimates. However, the cost estimation methodology was constructed to ensure the program cost comparisons, i.e., the percentage cost difference between program estimates would still be accurate even if this total shipmentlevel estimate is too high or low. The percentage mix of shipments by Services and shipment-types, and the corresponding ACPS are the factors that actually determine the program cost. The remaining sections of Appendix B describe the assumptions, methodology, and variables considered in our cost estimates. All of the cost estimate tables and figures provided in this appendix refer to FY01, the first year of our estimates, except for Table B-13 and Table B-14 which provide results for FY01 though FY10. Costs for fiscal years FY02-FY10 were estimated by directly applying the OMB inflation factors described in Table B-1.

Table B-1. Assumption Descriptions

	1	
Number	Applicable program estimates	Description of assumption
1	All	Total annual shipment volume is relatively stable from year to year and the percentage mix of those shipments by Service is also stable. Estimates of the total shipment volume and percentage-mix by Service were derived from Service finance center data from the FSMP Offsets Report, Dec 18, 2001, pg 40. We used the volume and the percentages shown later in Table B-5. The analysis excludes DITY moves from consideration for all programs.
2	All	The percentage of shipments by Service is as reported in the FSMP Off-sets Report, p. 40. Within each Service, the percentage mix of shipments by shipment type (dHHG, iHHG, iUB, and DPM) is relatively stable from year to year. Estimates of these percentages comes from the type data on all FY01 shipments in TOPS (446,464 shipments). The analysis used the estimated percentages shown in Table B-2. Using these percentages, and the estimated percentage of shipments by Service, the methodology computed the total percentage mix by shipment type and compared the results to FY01 and FY01 TOPS data. The results are shown in Table B-3, and indicate the resulting total shipment percentage mix by type are consistent with FY00 and FY00 TOPS shipment data.
3	DFPPP	Target government-wide goal for small business participation set as 23% according to the Small Business Act (Public Law 85-536).
4	All	Average cost per shipment by Service and shipment type is relatively stable from year to year except for inflation increases. The inflation indexes are per OMB Circular. OMB Circular A-76 (Revised) Transmittal Memorandum No. 24, February 27, 2002:  FY01 2.3%; FY02 2.2%; FY03 1.8%; FY04 1.7%; FY05 1.8%; FY06 1.9%; FY07–12 1.9%.
5	All	OMB Circular A-94 (A-94) discount rate of seven percent.
6	All	Costing only uses direct costs. MTMC Pilot and FSMP per shipment costs exclude indirect costs to conform to TOPS-provided shipment costing that reflects only direct costs. NTS costs are not considered.
7	Pilots and DFPPP	Average distance moved by shipments in the dHHG, iHHG, and iUB for the MTMC Pilot, FSMP, and the current program are equivalent within shipment category.
8	All	Government-provided costs from TOPS reflect full direct costs by shipment type.
9	Current	The shipment data from FY01 TOPS actually containing cost-data (334,761 of 446,464 shipments) provide a representative sample for estimating the current-program average cost per shipment for dHHG, iHHG, and iUB shipment types. Table B-4 provides the number of FY01 shipments by Service. As shown in this table, the number of Navy and Coast Guard costed shipments is extremely small. Rather than make an additional assumption that the Navy and Coast Guard current average cost per shipments were similar to the Army and Air Force, the methodology uses the FY01 TOPS data for those Services.

Table B-1. Assumption Descriptions (Continued)

Number	Applicable program estimates	Description of assum ption
10	MTMC & FSMP con- structed, DFPPP	The analysis assumess that the 334,791 FY01 shipments with cost data in TOPS provided a representative sample from which to determine the average weight per shipment (AWPS) by Service and shipment type for the current program. It compared the average weight by shipment type to the average shipment weights reported in the AMS pilot evaluations. As shown later in Table B-11, the AWPS of the MTMC and FSMP pilots was significantly heavier than the AWPS of the current program. To reflect the actual AWPS that would be encountered in the current program, the analysis assumed that the costs per shipment in the MTMC and FSMP constructed full rollout and the DFPPP were directly proportional to the weight of the shipment, e.g., if a shipment with identical origin and destination weighed 20% more, the shipment cost would be 20% more. Based on this assumption, the average-cost-per-shipment of the pilot constructed-cost full rollout, and DFPPP average-cost-per-shipment were scaled by ratio of AWPS of the current program to the AWPS of the MTMC and FSMP pilots. These ratios, titled as "weight scaling factors," appear by Service and shipment type in the later cost model tables.
11	Current with claims only	Claims information based on percentages contained in FSMP Offsets Report pending FY01 actual data from the Services.
12	All	DPM average cost per shipment is the same under all programs.
13	Pilots, DFPPP	Due to the small sample size of the pilots, less than 5,000 shipments, an assumption was that the pilot ACPS and AWPS for dHHG, iHHG, and iUB were the same for each Service in the corresponding shipment type. The ACPS were adjusted for differences in shipment weight when projecting these ACPS for full rollout in the pilot constructed cost estimates and the DFPPP estimate.

Table B-2. Percentage of Shipments by Type Within Each Service (FY01)

Service	Perce	Percentage of shipments by type									
		dHHG	iHHG	iUB	DPM						
Army	100.0%	30.3%	27.5%	31.8%	10.5%	196,008					
Air Force	100.0%	37.0%	25.6%	25.7%	11.6%	131,285					
Navy	100.0%	46.1%	25.9%	14.8%	13.2%	77,432					
Marines	100.0%	33.7%	17.4%	36.5%	12.3%	33,362					
Coast Guard	100.0%	69.7%	12.3%	4.9%	13.2%	8,377					
All	100.0%	36.0%	25.6%	26.9%	11.5%	446,464					

Table B-3. Percentage of DoD Shipments by Type

Source	Pe	Percentage of shipments by type								
	All	dHHG	iHHG	iUB	DPM					
Cost Model	100.0	36.2	25.7	26.6	11.5	612,616				
FY01 TOPS	100.0	36.0	25.6	26.9	11.5	446,464				
FY00 TOPS	100.0	37.5	25.8	26.2	10.5	457,805				

Table B-4. FY01 TOPS Shipments with Cost Data by Service

Service		Shipme	nt type		Number of shipments					
Cervice	dHHG	iHHG	iUB	DPM	w/costs	All				
Army	56,193	51,053	58,837	18,650	184,733	196,008				
Air Force	46,613	31,881	32,280	13,740	124,514	131,285				
Navy	128	198	122	33	481	77,432				
Marines	8,651	4,260	10,672	1,440	25,023	33,362				
Coast Guard	25	10	3	2	40	8,377				
All	111,610	87,402	101,914	33,865	334,791	446,464				

## ASSUMPTIONS

Cost modeling by its nature, involves the application of numerous judgments and assumptions. The methodology attempts to minimize the necessary assumptions, and test those assumptions by comparing the key variable estimates to historical data from multiple fiscal years and from multiple data sources. For example, a key set of estimates in our costing methodology is the percentage mix by Service of annual DoD shipments, and corresponding assumption that these percentages are relatively stable from year to year. Table B-5 provides a comparison of the percentage estimates used in our costing, the source of the Service finance center data from which that estimate was derived, and the corresponding percentages from the FY01 and FY00 TOPS shipment data. As indicated in the table, these Service percentages have been remarkably stable over the last several years, and the extremely large TOPS shipment samples confirm the percentage estimates used. Table B-1 provides a description of the assumptions used and the applicable program cost estimates to which the assumption applies.

Table B-5. Percentage of DoD Shipments (dHHG, iHHG, iUB, & DPM) by Service

Source	Pe	Percentage of shipments by service										
	All	А	F	N	М	Р						
Cost Model	100.0	42.7	30.7	18.6	6.2	1.7	612,616					
PwC FY98 Study	100.0	42.7	30.7	18.6	6.2	1.7	612,616					
FY01 TOPS	100.0	43.9	29.4	17.3	7.5	1.9	446,464					
FY00 TOPS	100.0	44.1	29.6	16.6	7.8	2.0	457,805					

## **METHODOLOGY**

The methodology used to determine the cost to fully roll out the DFPPP relies on simplifying assumptions included in Table B-1 as well as analytic techniques that will bring disparate cost data and estimates together to provide an analytically rigorous, supportable baseline. This task is difficult because of the inability of current logistics and financial automation systems to account for all costs. In addition, the available pilot program information as well as current program information does not fully describe the context where costs occur. Consequently, because of the short time available to generate cost estimates, the methodology uses assumptions, and applies mathematical techniques to validate data. The product reflects "best estimate" costs that have basis in historical data. The expectation is that as detailed planning progresses, these costs will be further refined.

Management of the Personal Property Program is a challenge for many of the Services because of the inability of financial management systems to provide detailed cost data on a real-time or near real-time basis. Consequently, the military Services were contacted to determine how they budget for HHG movements. For example, the Army uses the number of annual moves times \$2,000 per move to support its budget submission. This equates to about \$544 million for FY02, assuming the average number of moves during the period from FY98 through FY01. Table B-6 contains Army FY01 Defense Finance and Accounting Service (DFAS) reported costs for moves with and without dependents. The per-shipment costs illustrate the variability of the costing data available for this costing analysis.

Table B-6. FY01 DFAS Reported Army Average Cost per Move

Category	Without dependents	With dependents
Enlisted	\$3,774.75	\$7,436.00
Officer	\$9,004.02	\$8,560.46
Weighted average cost <sup>a</sup>	\$4,454.56	\$7,582.18

<sup>&</sup>lt;sup>a</sup>Weighted average uses the average enlisted/officer ratio between FY98 and FY01 of 87 percent/13 percent.

In addition, Service budget material for Budget Activity 5, Permanent Change of Station for FY02 and FY03 budget submissions was reviewed.

The situation described above made it imperative that the costing methodology recalculate the constructed costs of the pilot programs to incorporate the true end-to-end cost of the pilots as well as the current Personal Property Program that serve as the baseline for comparison. The methodology converts historical cost data so that it reflects current FY02 dollar values. The re-calculated current program cost uses claims information from the current program and that associated with the pilot to develop a true measure of comparison for the end-to-end cost of the DFPPP. This allows comparison upon full rollout where features of the DFPPP will be generally equivalent to those of the pilot programs.

## Steps in Costing

#### STEP 1—BASIC APPROACH AND SHIPMENT LEVELS

To produce consistent cost estimates of different programs by Service and shipment type, the costing methodology builds upon the following basic mathematical equality:

## [Total Annual Program Cost] = [Number of Annual Shipments] x [Average Cost Per Shipment]

First, an estimate of the annual number of shipments by Service and shipment type (dHHG, iHHG, iUB, and DPM) in the current DoD personal property program is made and this same set of shipment levels is applied to all programs to be costed. Second, the average cost per shipment (ACPS) by Service and shipment type is estimated based on FY01 TOPS shipment data with costs, and pilot ACPS and constructed ACPS was obtained from the USTRANSCOM PPP Pilot Programs Evaluation Report. To obtain the final cost estimates, adjustments where applicable, were made to the program ACPS for differences in shipment weight, estimated reductions due to competition, economies of scale, or expected rate discounts that would be expected in a full rollout from about 5,000 shipments to more than 600,000 annually. Table B-7 contains estimates of the shipment levels by Service and shipment type. These shipment quantities are used to cost all programs, and are based on the assumptions and estimates discussed in the Assumptions section of this report.

Table B-7. Estimated PPP Shipment Levels by Service and Type

	Num	ber of A	nnual Sh	ipments	
Service	Service total		By shipn	nent type	
	totai	dHHG	iHHG	iUB	DPM
Army	261,745	79,265	71,905	83,123	27,451
Air Force	188,306	69,740	48,193	48,480	21,892
Navy	114,127	52,637	29,513	16,898	15,078
Marines	37,887	12,767	6,605	13,840	4,675
Coast Guard	10,551	7,351	1,295	513	1,393
Total	612,616	221,760	157,511	162,855	70,490

#### STEP 2—CURRENT PROGRAM IN CONTEXT

The next step uses the historical average costs per shipment and develops the cost per service and by category based on these costs. The two upper frames in Figure B-1 reflect costs for the current program and the lower frames reflect costs with the 400N tariff applied (assumes 15 percent domestic HHG and five percent international HHG change). The upper right frame of Figure B-1 contains the average shipment cost from the current program. These costs by service and shipment category are multiplied times the respective cell in Table B-7 to arrive at the total cost and shipment category costs reflected in the left segment. The factors above the lower right frame segment of Figure B-1 are multiplied times the average costs in the current program to arrive at the average shipment cost with the 400N tariff applied. The lower left frame in Figure B-1 uses the same methodology as described for the current program.

Figure B-1. Step 2 Process (FY01)

Current Progra	m
----------------	---

Ouric													
	Total Cost (\$millions)												
Svc	by Svc	by S	Shipmer	nt catego	ory								
		dHHG	iHHG	iUB	DPM								
Α	\$717	\$306	\$281	\$122	\$7								
F	\$590	\$304	\$208	\$72	\$6								
N	\$416	\$174	\$177	\$32	\$32								
M	\$89	\$39	\$28	\$20	\$2								
Р	\$34	\$25	\$8	\$1	\$1								
Total	\$1,846	\$849	\$702	\$248	\$47								

Current Program

	Avera	ge Cost	(\$s) pe	er ship	ment
Svc	by Svc	by S	hipmer	nt categ	gory
		dHHG	iHHG	iUB	DPM
Α	\$2,738	\$3,867	\$3,909	\$1,467	\$261
F	\$3,136	\$4,356	\$4,323	\$1,491	\$276
N	\$3,644	\$3,313	\$6,009	\$1,911	\$2,115
M	\$2,337	\$3,062	\$4,166	\$1,470	\$344
Р	\$3,257	\$3,441	\$5,902	\$1,229	\$578
Total	\$3,013	\$3,829	\$4,456	\$1,520	\$674

tariff factor adjustment

**1.15 0.95** 1.00 1.00

**Current Program with 400N tariff** 

	iit i rogi	uiii iiii		w									
	Total Cost (\$millions)												
Svc	h. C. h. Chiamant at an an												
0.0	by Svc by Shipment category												
		dHHG	iHHG	iUB	DPM								
Α	\$749	\$352	\$267	\$122	\$7								
F	\$626	\$349	\$198	\$72	\$6								
N	\$433	\$201	\$168	\$32	\$32								
M	\$93	\$45	\$26	\$20	\$2								
Р	\$38	\$29	\$7	\$1	\$1								
Total	\$1,938	\$976	\$667	\$248	\$47								

Current Program with 400N tariff

	Avera	ge Cost	(\$s) pe	er shipi	ment
Svc	by Svc	by S	hipmer	nt categ	gory
		dHHG	iHHG	iUB	DPM
Α	\$2,860	\$4,447	\$3,714	\$1,467	\$261
F	\$3,322	\$5,009	\$4,107	\$1,491	\$276
N	\$3,796	\$3,810	\$5,708	\$1,911	\$2,115
M	\$2,456	\$3,521	\$3,958	\$1,470	\$344
Р	\$3,581	\$3,957	\$5,607	\$1,229	\$578
Total	\$3,164	\$4,403	\$4,234	\$1,520	\$674

STEP 3—ESTIMATING PILOT FULL ROLLOUT COSTS

Figure B-2 contains the calculations that determine the MTMC Pilot and FSMP Pilot Full-Rollout costs. Both use the average cost per shipment as reported by the USTRANSCOM Pilot Program Evaluation. These frames are arrayed from right to left with the right frame being the input, the frame to the left is a weight scaling factor that takes adjusts for the fact that the shipment weights in the pilots was different from the historical shipment weights by shipment category and by Service. The next frame to the left reflects the new average shipment cost with the factors applied. Finally, the frame on the left contains the resultant cost by service and shipment category. In order to provide direct benchmark to the pilot ACPS estimates from the USTRANSCOM PPP Pilot Programs Evaluation Report, we did not apply any adjustments to the pilot ACPS to account for weight, competition, or economies of scale. As shown in Figure B-2, the weight-scaling factors in the cost model are set to 1.0 to reflect no adjustments for average shipment weight.

Figure B-2. Pilot Full Rollout (FY01)

мтмо	C Pilot F	ull-rollo	ut			MTMC	Pilot F	ull-rollo	ut			MTMC	Pilot Full-	rollout				MTMC	Pilot Fu	ıll-rollo	ut	
		Total C	ost (\$mi	llions)			Scal	ed Aver sh	age Co ipmen	. ,	per		Weigh	t Scale	Fact	or		Orig	inal Ave	erage C hipmer	• •	) per
Svc	by Svc	by S	Shipmen	t categ	ory	Svc	by Svc	by S	hipmeı	nt cate	gory	Svc	by Sh	nipmen	t cate	gory	Svc	by Svc	by S	hipmei	nt categ	gory
		dHHG	iHHG	iUB	DPM			dHHG	iHHG	iUB	DPM		dHHG	iHHG	iUB	DPM			dHHG	iHHG	iUB	DPM
Α	\$1,122	\$404	\$581	\$131	\$7	А	\$4,287	\$5,093	\$8,074	\$1,571	\$261	Α	1.000	1.000	1.000	1.000	Α	\$4,287	\$5,093	\$8,074	\$1,571	\$261
F	\$827	\$355	\$389	\$76	\$6	F	\$4,389	\$5,093	\$8,074	\$1,571	\$276	F	1.000	1.000	1.000	1.000	F	\$4,389	\$5,093	\$8,074	\$1,571	\$276
N	\$565		\$238	\$27	\$32	N	\$4,949	\$5,093	, .		\$2,115	N	1.000	1.000	1.000	1.000	N	\$4,949	\$5,093	\$8,074	\$1,571	\$2,115
M	\$142	*	\$53	\$22	\$2	M	\$3,740	\$5,093	, .	\$1,571	\$344	M	1.000	1.000	1.000	1.000	M	\$3,740	\$5,093	\$8,074	\$1,571	\$344
Р	\$49	\$37	\$10	\$1	\$1		\$4,691	\$5,093	\$8,074	\$1,571	\$578		1.000	1.000	1.000	1.000	P	\$4,691	\$5,093	\$8,074	\$1,571	\$578
Total	\$2,705	\$1,129	\$1,272	\$256	\$47	Total	\$4,415	\$5,093	\$8,074	\$1,571	\$674	Total					Total	\$4,415	\$5,093	\$8,074	\$1,571	\$674
				\$256	\$47			· ·		\$1,571	\$674						Total		F	Read fro	om right	
	\$2,705	ull-rollo	ut		\$47		Pilot Fu	ill-rollou	ıt				Pilot Full-				Total	FSMP	Filot Fu	Read fro	om right	to left
		ull-rollo			\$47		Pilot Fu	· ·	ıt					rollout t Scale	Fact	or	Total	FSMP Orig	F	Read fro	om right	
		ull-rollo Total C	ut	llions)	ory		Pilot Fu	ill-rollou ed Aver by S	ıt age Co	ost (\$s)	per		Weigh by Sh	t Scale	t cate		Total	FSMP	Pilot Fu inal Ave	Read fro	om right	to left ) per
FSMF	P Pilot F	ull-rollo Total C	ut ost (\$mi	llions)		FSMP	Pilot Fu Scal	ıll-rolloı ed Aver	ıt age Co	ost (\$s)	per	FSMP	Weigh by Sh	t Scale	t cate			FSMP Orig	Pilot Fu inal Ave	Read fro	om right ut ost (\$s	to left
FSMF	P Pilot F	ull-rollo Total C by S dHHG	ut ost (\$mi	llions)	ory	FSMP	Pilot Fu Scal	ill-rollou ed Aver by S dHHG	ıt age Co	ost (\$s)	per gory DPM	FSMP	Weigh by Sh	t Scale	t cate iUB	gory DPM		FSMP Orig	Pilot Fu inal Ave	Read fro II-rollo erage C	om right ut ost (\$s nt cated	to left ) per
FSMF Svc	P Pilot F	ull-rollo Total C by S dHHG	ut ost (\$mi Shipmen	Ilions)  It categorius  \$179 \$105	ory DPM \$7 \$6	FSMP Svc A F	Pilot Fu Scal	ill-rollou ed Aver by S dHHG	age Co hipmer iHHG \$7,551 \$7,551	est (\$s) nt cate iUB	per gory DPM	FSMP Svc	by St	t Scale nipmen iHHG	t cate iUB	gory DPM	Svc A F	FSMP Orig by Svc	Pilot Fu inal Ave by S dHHG	Read fro II-rollo erage C hipmer iHHG	om right ut ost (\$s nt cated	o) per gory DPM
FSMF Svc A F N	Pilot F by Svc \$1,176 \$868 \$588	ull-rollo Total C by \$ dHHG \$447 \$393 \$297	ut ost (\$mi Shipmen iHHG \$543 \$364 \$223	Illions)  It categorius  \$179 \$105 \$36	ory DPM \$7 \$6 \$32	FSMP Svc A F	Pilot Fu Scal by Svc \$4,494 \$4,608 \$5,151	by S dHHG \$5,635 \$5,635 \$5,635	age Cc hipmer iHHG \$7,551 \$7,551 \$7,551	ost (\$s)  nt cate  iUB  \$2,159 \$2,159 \$2,159 \$2,159	gory DPM \$261 \$276 \$2,115	FSMP Svc A F N	by Sh dHHG 1.000 1.000 1.000	ipmen iHHG 1.000 1.000 1.000	t cate iUB 1.000 1.000 1.000	gory DPM 1.000 1.000 1.000	Svc A F N	FSMP Orig by Svc \$4,494 \$4,608 \$5,151	Pilot Fu inal Ave by S dHHG \$5,635 \$5,635 \$5,635	Read fro	om right  ut  cost (\$s  nt catec  iUB  \$2,159 \$2,159 \$2,159 \$2,159	30ry DPM \$261 \$276 \$2,115
FSMF Svc A F N	Pilot F by Svc \$1,176 \$868 \$588 \$153	ull-rollo Total C by \$ dHHG \$447 \$393 \$297 \$72	ut ost (\$mi Shipmen iHHG \$543 \$364 \$223 \$50	Ilions)  It category  IUB  \$179  \$105  \$36  \$30	ory DPM \$77 \$66 \$32 \$2	FSMP Svc A F N	Pilot Fu Scal by Svc \$4,494 \$4,608 \$5,151 \$4,047	by S dHHG \$5,635 \$5,635 \$5,635 \$5,635	it age Co hipmer iHHG \$7,551 \$7,551 \$7,551 \$7,551	est (\$s)  nt cate iUB  \$2,159 \$2,159 \$2,159 \$2,159 \$2,159	gory DPM \$261 \$276 \$2,115 \$344	FSMP Svc A F N	by St dHHG 1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	1.000 1.000 1.000 1.000	gory DPM 1.000 1.000 1.000 1.000	Svc A F N M	FSMP Orig by Svc \$4,494 \$4,608 \$5,151 \$4,047	Pilot Fuinal Ave by S dHHG \$5,635 \$5,635 \$5,635 \$5,635	Read from the state of the stat	ut cost (\$s nt catec iUB \$2,159 \$2,159 \$2,159 \$2,159 \$2,159 \$2,159	(a) per (b) per (c) pe
FSMF Svc A F N	Pilot F by Svc \$1,176 \$868 \$588	ull-rollo Total C by \$ dHHG \$447 \$393 \$297	ut ost (\$mi Shipmen iHHG \$543 \$364 \$223	Illions)  It categorius  \$179 \$105 \$36	ory DPM \$7 \$6 \$32	FSMP Svc A F	Pilot Fu Scal by Svc \$4,494 \$4,608 \$5,151	by S dHHG \$5,635 \$5,635 \$5,635	nt age Co hipmer iHHG \$7,551 \$7,551 \$7,551 \$7,551	ost (\$s)  nt cate  iUB  \$2,159 \$2,159 \$2,159 \$2,159	gory DPM \$261 \$276 \$2,115 \$344	FSMP Svc A F N	by Sh dHHG 1.000 1.000 1.000	ipmen iHHG 1.000 1.000 1.000	t cate iUB 1.000 1.000 1.000	gory DPM 1.000 1.000 1.000	Svc A F N	FSMP Orig by Svc \$4,494 \$4,608 \$5,151	Pilot Fu inal Ave by S dHHG \$5,635 \$5,635 \$5,635	Read fro	om right  ut  cost (\$s  nt catec  iUB  \$2,159 \$2,159 \$2,159 \$2,159	to left ) per gory DPM

#### STEP 4—ESTIMATING FULL ROLLOUT WITH PILOT CONSTRUCTED COSTS

This step shown in Figure B-3 uses the same methodology as that in Step 3 except that the calculations use the USTRANSCOM Pilot Program Evaluation derived constructed costs. The constructed cost estimates from the pilots provide additional estimates of the current program costs. The constructed ACPS are adjusted to reflect the significantly different shipment weights encountered in the pilots from that of the current program. No other adjustments to ACPS are applied.

Figure B-3. Pilot Constructed Cost (FY01)

итм	Filot C		ost (\$mi	llions)			Scale	ed Aver	age Co	st (\$s)	per		Weigh	t Scale	Facto	or		Orig	inal Ave	rage C	ost (\$s	) per
Svc	by Svc		Shipmen		ory	Svc	by Svc		hipme	,,,,,		Svc		nipmen			Svc	by Svc		hipmer		
		dHHG	iHHG	iUB	DPM			dHHG	iHHG	iUB	DPM		dHHG	iHHG	iUB	DPM			dHHG	iHHG	iUB	DPM
Α	\$674	\$226	\$312	\$128	\$7	A	\$2,573	\$2.855	\$4 345	\$1,536	\$261	A	0.784	0.737	0.713	1 000	A	\$3,433	\$3.639	\$5,896	\$2,153	\$2
F	\$541	\$225	\$221	\$88	\$6	F	\$2,873	\$3,233	. ,	\$1,820		F	0.888	0.779			F	\$3,443	\$3,639	,		\$2
N	\$362	\$157	\$147	\$26	\$32	N	\$3,170	\$2,991		\$1,525		N	0.822	0.843	0.708	1.000	N	\$3,801	\$3,639			\$2,1
M	\$84	\$34	\$27	\$22	\$2	M	\$2,223	\$2,648	\$4,088	\$1,575	\$344	M	0.728	0.693	0.732	1.000	М	\$3,083	\$3,639	\$5,896	\$2,153	\$3
Р	\$36	\$28	\$6	\$0	\$1	Р	\$3,376	\$3,838	\$4,745	\$903	\$578	P	1.055	0.805	0.419	1.000	P	\$3,440	\$3,639	\$5,896	\$2,153	\$5
						Total	\$2,769	<b>#2.027</b>	¢4 E20	\$1,621	\$674	Total					Total	\$3,483	\$3 639	\$5,896	\$2 153	\$
otal	\$1,696	\$671	\$714	\$264	\$47	Total	\$2,769	\$3,027	φ4,550	\$1,021	\$674	Total	-				<u>  10ta.</u>	φο, του		Read fro		
	\$1,696				\$47		Pilot co	,.			\$674		Pilot cons	structed	l cost	<u> </u>	10.0.			Read fro	om right	t to l
SMF		onstruct		3	\$47		Pilot co	,.	ed cos	ts				structed			Total	FSMP	F	Read fro	om right	t to le
	Pilot co	onstruct Total C	ed costs	s Ilions)			Pilot co Scale	nstruct ed Aver	ed cos	ts est (\$s)	per		Weigh	t Scale	Facto	or	Svc	FSMP Orig	Pilot coi	Read fronstructerage C	om right ed cos ost (\$s	t to le
SMF		onstruct Total C	ed costs	s Ilions)		FSMP	Pilot co	nstruct ed Aver	ed cos age Co	ts est (\$s)	per	FSMP	Weigh by SI		Facto	or		FSMP Orig	Pilot cor inal Ave	Read fronstructerage C	om right ed cos ost (\$s	t to le
SMF	Pilot co	onstruct Total C by S dHHG	ed costs ost (\$mi Shipmen iHHG	s Ilions) t catego	Dry DPM	FSMP	Pilot co Scale	enstruct ed Aver by S dHHG	ed cos age Co hipmer	ts est (\$s) ent cate	per gory DPM	FSMP	by SI dHHG	it Scale	Facto t cate iUB	gory DPM	Svc	FSMP Orig by Svc	Pilot col inal Ave by S dHHG	Read fronstructerage C	ed cost ost (\$s nt cated	t to le
SMF	by Svc	by S	ed costs ost (\$mi Shipmen iHHG	t categoriUB	DPM \$7	FSMP	Pilot co Scale by Svc	by S dHHG	ed costage Costingment	ts est (\$s) nt cate iUB	per gory DPM	FSMP	by SI dHHG	nipmen iHHG	Facto t cate iUB	gory DPM		FSMP Orig by Svc	Pilot colinal Ave	Read from structerage Continuer iHHG \$6,158	ed cost ost (\$s nt cated iUB \$2,054	t to le
SMF	Pilot co	onstruct Total C by S dHHG	ed costs ost (\$mi Shipmen iHHG \$390 \$276	s Ilions) t catego	Dry DPM	FSMP	Pilot co Scale	enstruct ed Aver by S dHHG	ed cos age Co hipmel iHHG \$5,429 \$5,735	ts est (\$s) ent cate	per gory DPM \$261 \$276	FSMP	by SI dHHG	it Scale	Factor t cate iUB 0.751 0.889	gory DPM	Svc	FSMP Orig by Svc	Pilot col inal Ave by S dHHG	Read from the structure of the structure	ed cosiost (\$sont categorius \$2,054 \$2,054	t to letts s) pe gory DP
SMF Svc A F N	by Svc \$764 \$608	by S dHHG \$238 \$237	ed costs ost (\$mi Shipmen iHHG \$390 \$276	s Illions) t categg iUB \$128 \$89	DPM \$7 \$6	FSMP Svc A F N M	Pilot co	by S dHHG \$3,001	ed cos age Co shipmer iHHG \$5,429 \$5,735 \$6,212	ts pst (\$s) nt cate iUB \$1,542 \$1,827	per gory DPM \$261 \$276 \$2,115	FSMP Svc A F N M	by SI dHHG 0.965 1.093	ipmen iHHG 0.882 0.931	Factor t cate iUB 0.751 0.889 0.745	gory DPM 1.000 1.000	Svc A F N	FSMP Orig by Svc \$3,313 \$3,289	Pilot coi inal Ave by S dHHG \$3,110	nstructerage Chipmer iHHG \$6,158 \$6,158 \$6,158	ed cosiost (\$sont categorius \$2,054 \$2,054	t to letts  s) pe  gory  DP  \$ \$2,
SMF	Pilot cc by Svc \$764 \$608 \$407	by S dHHG \$238 \$237 \$165	ed costs ost (\$mi Shipmen iHHG \$390 \$276 \$183	s Illions) t catego iUB \$128 \$89 \$26	DPM \$7 \$6 \$32	FSMP Svc A F	Pilot co Scale by Svc \$2,917 \$3,229 \$3,563	by S dHHG \$3,001 \$3,398 \$3,144	ed cos rage Co shipmer iHHG \$5,429 \$5,735 \$6,212 \$5,107	ts pst (\$s) nt cate iUB \$1,542 \$1,827 \$1,531 \$1,582	per gory DPM \$261 \$276 \$2,115 \$344	FSMP Svc A F	by SI dHHG 0.965 1.093 1.011	nipmen iHHG 0.882 0.931 1.009	Factor t cate iUB 0.751 0.889 0.745 0.770	1.000 1.000	Svc A F N	FSMP Orig by Svc \$3,313 \$3,289 \$3,610	by S dHHG \$3,110 \$3,110 \$3,110	nstruct erage C shipmer iHHG \$6,158 \$6,158 \$6,158 \$6,158	ed cost ost (\$s nt cate iUB \$2,054 \$2,054 \$2,054 \$2,054	t to le

#### STEP 5—ESTIMATING DFPPP WITH SCALED PILOT COSTS

Figure B-4 uses the same methodology as that in Steps 3 and 4. However, the respective pilot's average shipment costs are adjusted for small and large business price differential using the percentages above the upper and lower right frames to arrive at a new average shipment cost. As shown by the additional ACPS factors above the small/large business factors, a reduction of five percent is also applied to dHHG, iHHG, and iUB ACPS to reflect expected economies of scale from full rollout. Step 5 then applies the same weight-scaling factor method to arrive at the respective Service and shipment category costs.

### Figure B-4. DFPPP Cost Based on Pilots (FY01)

 Economic-scale:
 95.0%
 95.0%
 95.0%
 100.0%

 Large/Small Mix:
 93.0%
 93.0%
 89.9%
 100.0%

 Combined Adjustment:
 88.4%
 88.4%
 85.4%
 100.0%

DFPPP based MTMC Pilot

		<b>Total C</b>	ost (\$m	illions)	
Svc	by Svc	by S	Shipmer	nt categ	ory
		dHHG	iHHG	iUB	DPM
Α	\$745	\$280	\$378	\$80	\$7
F	\$608	\$279	\$268	\$55	\$6
N	\$420	\$195	\$178	\$16	\$32
М	\$90	\$42	\$33	\$14	\$2
Р	\$43	\$35	\$7	\$0	\$1
Total	\$1,906	\$830	\$864	\$164	\$47

DFPP <u>P based MTMC Pilot</u>
--------------------------------

Svc by Svc		age Co hipmer	•	
Svc by Svc		hipmer		
			it cate	gory
	dHHG	iHHG	iUB	DPM
<b>A</b> \$2,845	\$3,531	\$5,259	\$957	\$261
<b>F</b> \$3,227	\$3,999	\$5,555	\$1,134	\$276
<b>N</b> \$3,682	\$3,700	\$6,017	\$950	\$2,115
<b>M</b> \$2,367	\$3,275	\$4,947	\$982	\$344
<b>P</b> \$4,115	\$4,747	\$5,742	\$563	\$578
<b>Total</b> \$3,111	\$3,744	\$5,483	\$1,010	\$674

#### **DFPPP** based MTMC Pilot

DI I I	<u> </u>	asca III		iiΟι	
		Weigh	t Scale	Fact	or
Svc		by Sh	nipmen	t cate	gory
		dHHG	<b>iHHG</b>	iUB	DPM
Α		0.784	0.737	0.713	1.000
F		0.888	0.779	0.845	1.000
N		0.822	0.843	0.708	1.000
M		0.728	0.693	0.732	1.000
Р		1.055	0.805	0.419	1.000
Total					

#### DFPPP based MTMC Pilot

	DEPPP based MTMC Pilot								
	Original Average Cost (\$s) per								
Svc	by								
SVC	Svc	by S	hipme	nt cate	gory				
		dHHG	iHHG	iUB	DPM				
Α	\$3,777	\$4,501	\$7,136	\$1,342	\$261				
F	\$3,871	\$4,501	\$7,136	\$1,342	\$276				
N	\$4,400	\$4,501	\$7,136	\$1,342	\$2,115				
M	\$3,293	\$4,501	\$7,136	\$1,342	\$344				
Р	\$4,153	\$4,501	\$7,136	\$1,342	\$578				
Total	\$3,898	\$4,501	\$7,136	\$1,342	\$674				

#### Read from right to left

 Economic-scale:
 95.0%
 95.0%
 95.0%
 100.0%

 Large/Small Mix:
 89.2%
 89.2%
 85.1%
 100.0%

 Combined Adjustment:
 84.7%
 84.7%
 80.9%
 100.0%

DFPPP based on FSMP Pilot

	Total Cost (\$millions)						
Svc	by Svc	by Shipment category					
		dHHG	iHHG	iUB	DPM		
Α	\$887	\$365	\$406	\$109	\$7		
F	\$732	\$364	\$287	\$75	\$6		
N	\$498	\$254	\$190	\$22	\$32		
М	\$110	\$55	\$35	\$19	\$2		
P	\$55	\$46	\$8	\$0	\$1		
<b>Total</b>	\$2,282	\$1,083	\$926	\$225	\$47		

DFPPP based on FSMP Pilot

	Scaled Average Cost (\$s) per								
Svc	by Svc	by S	hipmer	nt cate	gory				
		dHHG	iHHG	iUB	DPM				
					_				
Α	\$3,389	\$4,608	\$5,642	\$1,310	\$261				
F	\$3,890	\$5,218	\$5,960	\$1,553	\$276				
N	\$4,368	\$4,828	\$6,455	\$1,301	\$2,115				
M	\$2,899	\$4,273	\$5,307	\$1,344	\$344				
P	\$5,185	\$6,194	\$6,160	\$770	\$578				
Total	\$3,726	\$4,885	\$5,882	\$1,383	\$674				

DEPPP based on FSMP Pilot

DFPP <u>P based on FSMP Pilot</u>										
	Weight Scale Factor									
Svc		by Shipment category								
		dHHG	iHHG	iUB	DPM					
A F N M P		0.965 1.093 1.011 0.895 1.297	0.882 0.931 1.009 0.829 0.963	0.751 0.889 0.745 0.770 0.441	1.000 1.000 1.000 1.000 1.000					
Total										

DFPPP based on FSMP Pilot

	Original Average Cost (\$s) per								
	by								
Svc	Svc	by Shipment category							
		dHHG							
Α	\$3,786	\$4,775	\$6,399	\$1,746	\$261				
F	\$3,888	\$4,775	\$6,399	\$1,746	\$276				
N	\$4,395	\$4,775	\$6,399	\$1,746	\$2,115				
M	\$3,405	\$4,775	\$6,399	\$1,746	\$344				
Р	\$4,273	\$4,775	\$6,399	\$1,746	\$578				
Total	\$3,916	\$4,775	\$6,399	\$1,746	\$674				

#### STEP 6—DEVELOP DFPPP COST

The final step in the methodology uses the averages developed in Step 5 and equally weights them to arrive at an average cost for the DFPPP as reflected in Figure B-5. The right frame reflects the derived average costs by Service and shipment category. The left frame contains the resulting total for all shipments.

Figure B-5. Final DFPPP Cost (FY01)

	Total Cost (\$millions)							
Svc	by Svc	by Shipment category						
		dHHG iHHG iUB DPM						
Α	\$816	\$323	\$392	\$94	\$7			
F	\$670	\$321	\$277	\$65	\$6			
N	\$459	\$224	\$184	\$19	\$32			
M	\$100	\$48	\$34	\$16	\$2			
Р	\$49	\$40	\$8	\$0	\$1			
Т	\$2,094	\$957	\$895	\$195	\$47			

DFPPP based on average of MTMC/FSMP

	Scaled Average Cost (\$s) per								
Svc	by Svc	by Shipment category							
		dHHG	iHHG	iUB	DPM				
Α	\$3,117	\$4,069	\$5,450	\$1,134	\$261				
F	\$3,558	\$4,608	\$5,758	\$1,343	\$276				
N	\$4,025	\$4,264	\$6,236	\$1,126	\$2,115				
M	\$2,633	\$3,774	\$5,127	\$1,163	\$344				
Р	\$4,650	\$5,470	\$5,951	\$666	\$578				
Т	\$3,418	\$4,314	\$5,682	\$1,196	\$674				

### Variables Considered in Costing

#### Rates

Annual average shipment costs contain a significant number of variables. For example, domestic tariff differences between the Winter 00 and Winter 01 rate cycles reflect an average 9 percent increase with the average cost index increasing from 122 to 132 between the respective rate cycles. In addition, the rates for FY00 included a 5.5 percent fuel surcharge using the D-6 tariff. The surcharge for FY01 averaged only two percent. The reported average shipment cost for FY01 reflects this 3.5 percent difference, which increased by less than two percent despite the 9 percent average tariff increase. Information regarding the impact of the current commercial 400N tariff on increases in cost above the current rate baseline was not available for this initial costing effort. Consequently, the analysis assumes a 15 percent increase per MTMC PP memorandum to the services regarding the Domestic Winter 2002 (DW02) expected rate increase.

## Cost of Living Index

As part of this analysis, a cursory investigation of the impact of the Cost of Living Index (CLI) on the installations involved in the MTMC and FSMP pilot programs and on DoD in general was done. Based on this review reflected in Table B-8, this methodology assumes that the costs associated with the respective pilots apply to all of DoD. The CLI for the areas that contained installations in the FSMP reflect

an average index of 104.2 for the five areas in which they are located. This compares to a national baseline of 100. The other installations located in the states served by the FSMP pilot reflected an average index of 97.9. In general, the MTMC pilot for its installations was just below the baseline but below the national average of 102.

Table B-8. Cost of Living Index Review for Pilot Programs and DoD

Pilot	Mil Area	MSA	CPI average
FSMP			
FSMP	Y	5	104.2
Non-FSMP Installations		8	97.9
FSMP Total		13	100.3
MTMC			
MTMC	Y	9	99.5
Non-MTMC Installations		31	98.9
MTMC Total		40	99.1
Non-pilot areas			
Non-pilot Installations	Y	37	102.6
Other MSAs	(blank)	278	102.4
Non-pilot Total		315	102.4
Grand total		368	102.0

These CLI numbers are not adjusted to reflect DoD channel distribution. Based on this review, we decided not to apply CLI offsets in our methodology.

## Shipment Distribution Profiles

One of the primary efforts of the costing is to factor the observed results of the pilots to the cost to perform a DoD wide rollout of the DFPPP. This was accomplished by only concentrating on the direct costs associated with shipments. The choice was to attack this problem at the macro level. This macro-level view allowed the analysis to estimate the cost associated with the three service shipment categories, and from that, apply historic service shipment percentages to arrive at the respective service cost. The historic service shipment percentages are provided earlier in Table B-5.

## **Small Business and Competition**

Both pilot programs indicate that the use of small business exceeds, by a considerable amount, the DoD target of 23 percent. Small business participation in the MTMC pilot and the FSMP were 48 percent and 73 percent respectively. Analysis of the data indicates that small businesses were 14 percent more expensive per shipment in the MTMC pilot and 74 percent more expensive per shipment in the FSMP pilot. According to MTMC personnel, the majority of their HHG carriers are small business and the transportation rates used in the MTMC pilot indicate

that, domestically, they offer a 5.2 percent greater discount off the tariff. Internationally, small business rates are eight percent higher than their large business competitors. Overall, FSMP international rates were 15 percent to 29 percent higher than those in the MTMC pilot. Further analysis of the FSMP domestic small business rates provided mixed results. A review of shipments by weight and earnings provided by MTMC by transportation provider for FY01 indicated that FSMP small business providers were six percent to 22 percent more expensive than large business providers on a per pound basis. This contrasted to large businesses not involved in the FSMP pilot being about 23 percent more expensive on a per pound basis than small businesses that did not participate in the FSMP pilot. Additional analysis may clarify these results.

For costing, the analysis modified the mix of small business participation to achieve the DoD target at 30 percent. This results in an average adjustment of 9.2 percent to baseline costs. Consequently, the methodology offsets the costs observed in each pilot to reflect the economies of scale that inherent with large business as opposed to small business. It may be that in this industry, the Small Business Administration's \$18 million annual sales volume is not a valid metric for distinguishing between large and small businesses. This should be reviewed.

## Claims Adjustments

In order to develop DFPPP program costs that reflect the full cost of the current claims situation, the analysis calculated the direct costs associated with a claim. These calculations used the claims averages in the FY97/98 baseline since current Service claims data was not available. The methodology used the elements contained in Table B-9. This resulted in \$189.71 per shipment distributed as an addition to the baseline costs.

*Table B-9. Claims Offset Methodology* 

Description	Result
Shipments	612,616
Pct w/damage	65%
Potential claims	398,200
Pct of claims submitted to government	35%
Claims processed	139,370
Average claim amount	\$667
Claims Paid to member (for calculation)	\$92,959,883
Replacement value addition (USG pays 75% of FRV)	\$23,239,971
Value of non pursued claims at 25% of Average claim paid	\$43,159,946
Unrecovered claims from carriers	\$49,821,701
Total Claims Cost	\$116,221,617
Claims cost/shipment (Total Claims Cost/Claims processed)	\$189.71

Table B-9 includes the number of shipments assumed for this analysis. The percent of shipments with damage is taken from the USTRANSCOM Pilot Program Evaluation as well as the percent of claims submitted to the government. The entry, claims paid to member, reflects the number of claims processed times the average claim amount. This is used to estimate the cost that would be incurred if the government paid claims at replacement value vice its current depreciated value method. The value of non-pursued claims is the difference between potential claims and claims processed multiplied by 25 percent of the average claim amount. The assumption is that 25 percent is the threshold service members will endure before attempting to file a claim using current procedures. The item, unrecovered claims from carriers, reflects the value of claims presented to the carrier but not paid. The claims cost is the sum of the shaded cells immediately above.

## Learning Curve

Implementation of the DFPPP will result in changes that will result from market development. At this time, these changes are not quantifiable due to the interactions caused by a combination of factors. The pilot program rates reflected uncertainty for participants due to a new program without a track record. When incentives link to performance, insurance rates will reflect carrier-by-carrier performance in the marketplace. Ultimately, these will be reflected in rates and be included in offered discounts to the tariff for both transportation and non-transportation matters.

Similarly, on the government side, the DFPPP will improve the visibility of shipment status that will improve management of Storage in Transit (SIT) charges that are controllable costs associated with destination housing availability.

## Shipment Characteristics

The baseline for this analysis is the results of the MTMC Pilot and the FSMP pilot programs and historical data provided by TOPS for FY01 and FY00. Because the TOPS historical data was consistent for the two referenced fiscal years, the methodology assumes that the general shipment population across DoD is consistent with the TOPS distribution and that reported in the PWC Current Program Evaluation Report, Revision 1 and the Subsequent Report to Congressional Committees, Revision 1, both dated June 30, 2000. The Full Service Moving Project (FSMP) Offsets Report, December 18, 2001 uses the same number of shipments in the general shipment population.

The average pilot shipment weights and those of the general DoD population are as shown in Table B-10. Note that in general, pilot weights were significantly heavier than those in the general DoD population.

Table B-10. Average HHG Shipment Weights

Average weight per shipment—current versus pilots							
Source	Average weight dost ber shipment i					Number of shipments	
	dH	HG	iHI	HG	il	JB	
FY01 TOPS w/cost	5,849		3,864		453		334,791
MTMC pilot	7,102	+21%	5,151	+33%	599	+32%	3,822
FSMP pilot	5,774	-1%	4,306	+11%	569	+26%	5,194

As shown in Table B-11, the pilot shipment mix by type is also not representative of the general population of DoD HHG shipments. Thus, as discussed in the Assumptions section of this appendix, the methodology ignored the percentage mix of shipments by type in the pilots, and it adjusted the pilot average cost per shipment to reflect the significantly different average shipment weights that appear in the current PPP. Note that the pilots had relatively few international shipments and consisted mainly of domestic HHG shipments.

Table B-11. Percentage of Shipments by Type

	Р					
Source	All	dHHG	iHHG	iUB	DPM	Number of shipments
Cost Model	100.0	36.2	25.7	26.6	11.5	612,616
FY01 TOPS	100.0	36.0	25.6	26.9	11.5	446,464
FY00 TOPS	100.0	37.5	25.8	26.2	10.5	457,805
MTMC Pilot	100.0	86.1	7.5	6.5		3,822
FSMP Pilot	100.0	73.0	12.2	14.8		5,194

#### Cost Estimates

The following pages contain the cost estimates associated with full rollout of the DFPPP. Table B-13 is the estimated cost for the DFPPP by category of service and Table B-14 is the Service related estimate.

## **Total Program Direct Costs by Shipment Category** (\$s in millions)

Fiscal Year:	2001					2002					2003					2004					2005				
	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM
MTMC pilot full rollout FSMP pilot full rollout	2,705 2,838	1,129 1,250	1,272 1,189	256 352	47 47	2,764 2.901	1,154 1,277	1,300 1,216	261 359	49 49	2,814 2.953	1,175 1.300	1,323 1,237		49 49	2,862 3,003	1,195 1,322	.,	271 372	50 50	2,913 3,057	1,216 1,346	,		51 51
MTMC constructed FSMP constructed	1,696 1,910	671 706	714 892	264 265	47 47	1,734 1,952	686 721	729 911	270 271	49 49	1,765 1,987	698 734	742 928	275 276	49 49	1,795 2,020	710 747	755 943	279 280	50 50	1,827 2,057	723 760	769 960	284 285	51 51
Current PPP Current PPP (with claims) Current w/ 400N tariff & iSFR	1,846 1,962 1,938	849 891 976	702 732 667	248 278 248	47 61 47	1,887 2,005 1,981	868 911 998	717 748 682	253 285 253	49 62 49	1,921 2,042 2,017	883 927 1,016	730 761 694	258 290 258	49 63 49	1,953 2,076 2,051	898 943 1,033	743 774 706	262 295 262	50 64 50	1,988 2,114 2,088	915 960 1,052	756 788 718	267 300 267	51 66 51
DFPPP	2,094	957	895	195	47	2,140	978	915	199	49	2,179	995	931	203	49	2,216	1,012	947	206	50	2,256	1,031	964	210	51

Fiscal Year:	2006					2007 2					2008							2010							
	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM	Total	dHHG	iHHG	iUB	DPM
MTMC pilot full rollout	2,966	1,238	1,395	281	52	3,019	1,261	1,420	286	53	3,073	1,283	1,445	291	54	3,129	1,306	1,471	296	55	3,185	1,330	1,498	301	56
FSMP pilot full rollout	3,112	1,370	1,304	386	52	3,168	1,395	1,328	392	53	3,225	1,420	1,352	400	54	3,283	1,446	1,376	407	55	3,342	1,472	1,401	414	56
MTMC constructed	1,860	736	782	289	52	1,893	749	797	295	53	1,927	763	811	300	54	1,962	776	825	305	55	1,997	790	840	311	56
FSMP constructed	2,094	774	978	291	52	2,132	788	995	296	53	2,170	802	1,013	301	54	2,209	816	1,031	307	55	2,249	831	1,050	312	56
Current PPP	2,024	931	770	271	52	2,061	948	784	276	53	2,098	965	798	281	54	2,135	982	812	286	55	2,174	1,000	827	291	56
Current PPP (with claims)	2,152	977	802	305	67	2,190	995	817	311	68	2,230	1,013	832	316	69	2,270	1,031	847	322	70	2,311	1,049	862	328	72
Current w/ 400N tariff & iSFR	2,125	1,071	731	271	52	2,164	1,090	744	276	53	2,203	1,110	758	281	54	2,242	1,130	771	286	55	2,283	1,150	785	291	56
DFPPP	2,296	1,049	981	214	52	2,338	1,068	999	217	53	2,380	1,087	1,017	221	54	2,422	1,107	1,035	225	55	2,466	1,127	1,054	229	56

Legend:

dHHG - Domestic HHG iHHG - International HHG iUB - International UB

**DPM** - Direct Procurement Method

## **Total Program Direct Costs by Service** (\$s in millions)

Fiscal Year:

	1 10001 1 0011
MTMC pilot full	rollout
FSMP pilot full r	
MTMC construc	ted
FSMP construct	ed
Current PPP	
<b>Current PPP (wi</b>	th claims)
Current w/ 400N	tariff & iSFR
DFPPP	

2001						2002						2003						2004						2005					
Total	Α	F	N	М	Р	Total	Α	F	N	M	Р	Total	Α	F	N	М	Р	Total	Α	F	N	М	Р	Total	Α	F	N	М	Р
•			•	•									•						•			•			•		•		
2,705	1,122	827	565	142	49	2,764	1,147	845	577	145	51	2,814	1,167	860	588	147	51	2,862	1,187	875	598	150	52	2,913	1,209	890	608	153	53
2,838	1,176	868	588	153	53	2,901	1,202	887	601	157	54	2,953	1,224	903	612	160	55	3,003	1,245	918	622	162	56	3,057	1,267	935	633	165	57
1,696	674	541	362	84	36	1,734	688	553	370	86	36	1,765	701	563	376	88	37	1,795	713	572	383	89	38	1,827	726	583	390	91	38
1,910	764	608	407	93	39	1,952	780	621	416	95	39	1,987	794	633	423	97	40	2,020	808	643	430	98	41	2,057	822	655	438	100	42
1,846	717	590	416	89	34	1,887	732	603	425	91	35	1,921	746	614	433	92	36	1,953	758	625	440	94	36	1,988	772	636	448	95	37
1,962	766	626	438	96	36	2,005	783	640	447	98	37	2,042	797	651	455	100	38	2,076	811	663	463	101	38	2,114	825	674	471	103	39
1,938	749	626	433	93	38	1,981	765	639	443	95	39	2,017	779	651	451	97	39	2,051	792	662	458	98	40	2,088	806	674	467	100	41
2,094	816	670	459	100	49	2,140	834	685	469	102	50	2,179	849	697	478	104	51	2,216	863	709	486	106	52	2,256	879	722	495	107	53

Fiscal Year:

MTMC pilot full rollout FSMP pilot full rollout MTMC constructed **FSMP** constructed **Current PPP** Current PPP (with claims) Current w/ 400N tariff & iSFR

2006	2007									2008						2009						2010							
Total	Α	F	N	М	Р	Total	Α	F	N	М	Р	Total	Α	F	N	М	Р	Total	Α	F	N	М	Р	Total	Α	F	N	M	Р
				•			·																						
2,966	1,230	906	619	155	54	3,019	1,252	923	630	158	55	3,073	1,275	939	642	161	56	3,129	1,298	956	653	164	57	3,185	1,321	973	665	167	58
3,112	1,290	951	645	168	58	3,168	1,313	969	656	171	59	3,225	1,337	986	668	174	60	3,283	1,361	1,004	680	177	61	3,342	1,385	1,022	692	181	63
1,860	739	593	397	92	39	1,893	752	604	404	94	40	1,927	765	615	411	96	40	1,962	779	626	419	97	41	1,997	793	637	426	99	42
2,094	837	667	446	102	42	2,132	852	679	454	104	43	2,170	868	691	462	105	44	2,209	883	703	470	107	45	2,249	899	716	479	109	45
2,024	786	647	456	97	38	2,061	800	659	464	99	38	2,098	814	671	473	101	39	2,135	829	683	481	102	40	2,174	844	695	490	104	40
2,152	840	687	480	105	40	2,190	855	699	488	107	41	2,230	871	712	497	109	41	2,270	887	724	506	111	42	2,311	902	737	515	113	43
2,125	821	686	475	102	41	2,164	836	698	484	104	42	2,203	851	711	492	106	43	2,242	866	724	501	108	44	2,283	882	737	510	110	44
2,296	895	735	504	109	54	2,338	911	748	513	111	55	2,380	927	761	522	113	56	2,422	944	775	531	115	57	2,466	961	789	541	117	58

### Legend:

DFPPP

A - Army

F - Air Force

N - Navy

M - Marine Corps P - Coast Guard

## Appendix C

## **Abbreviations**

ACPS Average Cost per Shipment

AoR Area of Responsibility

AWPS Average Weight per Shipment

BOA Basic Order Agreement

BPWG Business Process Working Group

BV Best Value

BVDDb Best Value Distribution Database

CFAC Common Financial and/or Administrative Control

COIP Certificate of Independent Pricing

CONOPS Concept of Operations
CONUS Continental United States

COR contracting

COTS commercial off-the-shelf

DFAS Defense Finance and Accounting Service
DFPPP DoD Future Personal Property Program

dHHG Domestic Household Goods

DoD Department of Defense

DPM Direct Procurement Method

DPS Defense Personal Property System
DTS Defense Transportation System

EA Enterprise Architecture

FAR Federal Acquisition Regulation FSMP Full Service Moving Project

FVP Full Value Protection

GAO General Accounting Office
GBL Government Bill of Lading
GOTS government off-the-shelf

GSA General Services Administration

HHG Household Goods

ITGBL International Through Government Bill of Lading

ISFT International Service Factor Rate

iBOTO International Boat one-Time-Only iHHG International Household Goods

iUB International Unaccompanied Baggage

LOI Letter of Intent

MTMC Military Traffic Management Command

NTS Non-temporary storage

OLTP Online transaction processing
OSD Office of the Secretary of Defense

OTO One-time-only

PCS Permanent Change of Station
POAM Plan of Action and Milestones

PPGBL Personal Property Government Bill of Lading

PPM Personally Procured Move PPP Personal Property Program

PPSO Personal Property Shipping Office

PTOPS Pilot-Transportation Operational Personal Property Stan-

dard System

PWS Performance Work Statement

RDD Required Delivery Date

RFQ Request For Quote

RSMO Regional Storage Management Offices

SAM Sailor Arranged Move

SDT Software Development Team

SFR Single Factor Rate
SIT storage-in-transit

TOPS Transportation Operational Personal Property Standard

System

TP Transportation Provider

TQAP Total Quality Assurance Program

UB Unaccompanied Baggage
USTRANSCOM US Transportation Command

## Appendix D

## **Definitions**

#### ACTUAL EXPENSE

Payment of authorized actual expenses incurred, up to the limit prescribed by the Administrator of GSA or agency, as appropriate. Entitlement to reimbursement is contingent on entitlement to per diem, and is subject to the same definitions and rules governing per diem.

#### ACTUAL (PLACE OF) RESIDENCE

The fixed or permanent domicile of a person that can be reasonably justified as a bona fide residence. Also referred to as the "home of record.".

#### **AGREEMENT**

A written statement required by any of several statutes, signed by a person selected for appointment or by an employee, prescribing a required period of service and other conditions related to a transportation entitlement in connection with permanent duty travel.

#### APPROVED

The ratification or confirmation of an act already done.

#### APPROVING OFFICIAL

See TRAVEL-APPROVING/DIRECTING OFFICIAL.

#### ARMED FORCES

The Army, Navy, Air Force, Marine Corps, and Coast Guard (see 37 U.S.C. §101(4)).

#### BAGGAGE

Personal effects of a traveler that are needed in connection with for official travel and immediately on arrival at the point of assignment. Material belonging to the government may be included. (Note: Baggage may accompany a traveler or be transported separately.)

#### BAGGAGE, ACCOMPANIED

Baggage that consists of coats, brief cases, suitcases, and similar luggage that accompanies a traveler free under carriers' tariffs on a transportation ticket.

#### BAGGAGE, HOLD

Unaccompanied baggage transported in the hold of a ship.

#### BAGGAGE, UNACCOMPANIED

The part of a member's/employee's prescribed weight allowance of HHG that

- a. is not carried free on a ticket used for personal travel,
- b. ordinarily is transported separately from the major bulk of HHG, and
- c. usually is transported by an expedited mode because it is needed immediately or soon after arrival at destination for interim housekeeping pending arrival of the major portion of HHG.

Note 1: Unaccompanied baggage in connection with permanent duty and RAT may consist of personal clothing and equipment, essential pots, pans, and light housekeeping items; collapsible items such as cribs, playpens, and baby carriages; and other articles required for the care of dependents. Items such as refrigerators, washing machines, and other major appliances or furniture must not be included in unaccompanied baggage.

Note 2: In connection with an extended TDY assignment, unaccompanied baggage is limited to the necessary personal clothing and effects for the individual and equipment directly related to the assignment.

#### CIRCUITOUS TRAVEL

Travel by a route other than the one that normally would be prescribed by a transportation officer between the places involved.

#### COMMERCIAL TRANSPORTER

A transporter operating under the Interstate Commerce Commission Termination Act of 1995 (Public Law 104-88) in interstate commerce or under appropriate state statutes in intrastate commerce.

#### COMMON CARRIER

Private-sector supplier of air, rail, bus, or ship transportation.

#### COMMUTED RATE

A price rate used for HHG transportation and temporary storage. It includes costs of line-haul transportation, packing, crating, unpacking, drayage incident to transportation and other accessorial charges, and costs of temporary storage within the applicable weight limit for storage including in-and-out charges and necessary drayage. The GSA publication, *Commuted Rate Schedule for Household Goods* contains the constructive rate allowance and commuted rates for storage.

#### CONTINENTAL UNITED STATES (CONUS)

The 48 contiguous states and the District of Columbia.

#### DEFENSE TABLE OF OFFICIAL DISTANCES (DTOD)

The DoD standard source for worldwide distance information based on city-to-city distance (not zip code-to-zip code), replacing all other sources used for computing distance (except airplanes). For more information refer to the DTOD website at http://dtod-mtmc.belvoir.army.mil

#### DEPARTMENT OF DEFENSE (DOD) COMPONENTS

The Office of the Secretary of Defense (including the organization of the Joint Chiefs of Staff), American Forces Information Service, Ballistic Missile Defense Organization, Defense Advanced Research Projects Agency, Defense Commissary Agency, Defense Contract Audit Agency, Defense Contract Management Agency, Defense Finance and Accounting Service, Defense Information Systems Agency, Defense Intelligence Agency, Defense Legal Services Agency, Defense Logistics Agency, Defense Prisoner of War/Missing Personnel Office, Defense Security Cooperation Agency, Defense Security Service, Defense Threat Reduction Agency, Department of Defense Education Activity, Department of Defense Human Resources Activity, Department of Defense Inspector General, the Department of the Army, the Department of the Air Force, the Department of the Navy (including the Marine Corps), National Imagery & Mapping Agency, National Security Agency/Central Security Service, Office of Economic Adjustments, TRICARE Management Activity, Uniformed Services University of the Health Sciences, United States Court of Appeals for the Armed Forces, and Washington Headquarters Services.

#### DEPENDENT/IMMEDIATE FAMILY

Any of the following named members of an employee's household at the time the employee reports for duty at a new PDS or performs authorized/approved OCONUS tour RAT or separation travel:

- a. employee's spouse;
- b. children of the employee or employee's spouse who are unmarried and under 21 years of age or who, regardless of age, are physically or mentally incapable of self-support. (Note: "Children" includes natural offspring; stepchildren; adopted children; grandchildren, legal minor wards or other dependent children who are under legal guardianship of the employee or employee's spouse; also, a child born and moved after the employee's effective date of transfer because of advance stage of pregnancy, or other reasons acceptable to the DoD component concerned [e.g., awaiting completion of the school year by other children] [50 Comp. Gen. 220 (1970); 66 id. 497 (1987)]);
- c. dependent parents (including step-parents and legally adoptive parents) of the employee or employee's spouse; and
- d. dependent brothers and sisters (including step-brothers and step-sisters and legally adoptive brothers and sisters) of the employee or employee's spouse who are unmarried and under 21 years of age or who, regardless of age, are physically or mentally incapable of self-support.

Note 1: Generally, the individuals named in items c and d are dependents of the employee if they receive at least 51 percent of their support from the employee or employee's spouse; however, this percentage of support criterion must not be the decisive factor in all cases. These individuals also may be dependents for the purpose of this definition if they are members of the employee's household and, in addition to their own income, receive support (less than 51 percent) from the employee or employee's spouse without which they would be unable to maintain a reasonable standard of living.

Note 2: In connection with the Missing Persons Act, "dependent" is defined in par. C6101-A for purposes of transportation eligibility under that Act.

Note 3: With respect to emergency leave travel, see par. C6453-D.

Note 4: With respect to threatened law enforcement/investigative employees, see par. C6401.

#### **DESIGNATED PLACE**

A place the commander concerned, or the commander's designated representative, or the employee designates for the movement of dependents or HHG when not accompanying the employee.

#### DIFFERENT (OR SEPARATE) DEPARTMENTS AND AGENCIES

a. The several departments and agencies of the Executive branch of the federal government.

b. Within the Department of Defense, the terms "Different Departments" or "Different Military Departments" means the DoD components separately.

Note: This distinction is necessary for funding of travel and transportation from one department to another.

#### DISTANCE

As applicable for the Defense Table of Official Distance:

SHORTEST—Routes a driver takes to minimize total distance traveled while still following a truck-navigable route. Used in most cases to calculate HHG distances.

PRACTICAL—Route a driver ordinarily would take to minimize time and cost. Practical routes model the trade-off between taking the most direct path versus staying on major, high-quality highways. Interstate highways are given a higher priority than secondary highways. Practical routings consider distance, road quality, terrain, urban/rural classifications, and designated principal and secondary through routes. Used to calculate travel distances.

#### **DUTY STATIONS**

For the purpose of entitlement to HHG and mobile home transportation and storage—the place where an employee actually is assigned for duty, including a place from which the employee commutes daily to an assigned station.

#### EFFECTIVE DATE OF PCS ORDERS

The date an employee is required to commence travel to comply with orders. (Note: In determining the effective date, authorized leave, or TDY en route required by the orders is excluded.)

#### EFFECTIVE DATE OF TRANSFER OR APPOINTMENT

The date an employee or new appointee reports for duty at a new or first PDS.

#### EXPEDITED TRANSPORTATION MODE

A common carrier-operated transportation service for the accelerated or protected movement of HHG between specified points.

#### EXTENDED STORAGE

See NON-TEMPORARY STORAGE.

#### **FAMILY**

See DEPENDENT.

#### FEDERAL TRAVEL REGULATION

Regulation contained in 41 Code of Federal Regulations (CFR), Chapters 300 through 304, that implements statutory requirements and Executive branch policies for travel by federal civilian employees and others authorized to travel in the manner of civilian employees at government expense.

#### FOREIGN AREA AND FOREIGN COUNTRY

Any area or country outside the 50 states, District of Columbia, the Commonwealths of Puerto Rico and the Northern Mariana Islands, Guam, and U.S. territories and possessions.

#### FUND-APPROVING OFFICIAL

The person who provides the accounting data for authorized/approved travel assignments or amendments.

#### GEOGRAPHICAL LOCALITY

The contiguous political area of a single country or a related island group in the same region.

Note 1: Widely dispersed noncontiguous subdivisions of the same country that are separate geographic localities. For example: the United Kingdom (including England, Wales, Scotland, and Northern Ireland) is a geographic locality and Ireland (Republic of) is a separate geographic locality; France and Germany are separate geographic localities; Portugal and the Azores are separate geographic localities; the Philippine Islands are the same geographic locality. Japan, including its separate island components, with the exception of the Ryukyu Island, is a single geographic locality. The Ryukyu Islands (including Okinawa) are a separate geographic locality. With regard to the United States, CONUS is a single geographic locality, but the states of Hawaii and Alaska, and each United States territory or possession, are separate geographic localities.

Note 2: The terms "overseas area" or "OCONUS area" relate to more than one geographic locality and may include a continent, the area comprising command jurisdiction, or the entire OCONUS area.

#### **GOVERNMENT**

The government of the United States and the government of the District of Columbia.

#### GOVERNMENT CONVEYANCE

Equipment owned, leased, or chartered for transportation on land, water, or in the air, expressly for government use. This includes aircraft on loan to the government or owned by an Aero Club and AMC categories B and M air travel.

#### GOVERNMENT QUARTERS

- a. Sleeping accommodations in a facility (other than a transportation mode) owned, operated, or leased by the U.S. Government; or furnished by a foreign government under an agreement or on a complimentary basis in behalf of the United States; or furnished by a government contractor under the terms of a contract or on a complimentary basis;
- b. lodgings or other quarters obtained by U.S. Government contract;
- c. quarters in a state-owned National Guard camp;
- d. sleeping facilities in a National Guard armory when these facilities actually are used or their use is directed by competent authority for annual or year-round annual training even though not used;
- e. temporary lodging facilities as defined in this Appendix;
- f. permanent lodging facilities on a U.S. installation, owned and operated by private corporation, if the use of these facilities is directed by Service regulations; and
- g. family-type housing owned or leased by the U.S. Government.

Note 1: Government quarters include guest houses, officers clubs, operations hotels, bachelor officers quarters, visiting officers quarters, or similar quarters facilities located at a military activity, quarters aboard a Corps of Engineers floating plant, and a Navy Mine Defense Laboratory offshore platform. Also included are family-type quarters owned or leased by the U.S. Government, whether occupied as a guest or as a principal.

Note 2: Standards of adequacy are prescribed by the Office, Secretary of Defense, and implemented by appropriate Service regulations.

#### GOVERNMENT TRANSPORTATION

Transportation facilities owned, leased, or chartered and operated by the U.S. Government for transportation on land, water, or in the air. (Also see Government Conveyance.)

#### HOUSEHOLD GOODS (HHG)

Items (except those listed in b and c) associated with the home and all personal effects belonging to an employee and dependents when shipment or storage begins.

#### a. HHG include:

- 1. PBP&E needed and not needed for the performance of official duties at the next or a later destination (PBP&E that are needed but may cause the HHG total weight to exceed 18,000 pounds optionally may be shipped administratively (see par. C8120) and therefore must be weighed separately and identified on the inventory at origin as PBP&E.);
- 2. spare parts for a POV (see definition in this Appendix) and a pickup
- 3. tailgate when removed;
- 4. integral or attached vehicle parts that must be removed due to high vulnerability to pilferage or damage (e.g., seats, tops, winch, spare tires, portable auxiliary gasoline can(s), and miscellaneous associated hardware);
- 5. consumable goods for employee's ordered to locations listed in Appendix F; and
- 6. vehicles other than POVs (such as motorcycles, mopeds, hang gliders, golf carts, jet skis, and snowmobiles);
- 7. (Effective 19 February 2002) boats that can be transported in a moving van (e.g., canoe, kayak, rowboat, outboard/inboard motorboat (14 ft or less)); and
- 8. (Effective 19 February 2002) ultralight vehicles (defined in 14 C.F.R. Sec 103 as being single occupant; for recreation or sport purposes; weighing less than 155 pounds if unpowered or less than 254 pounds if powered; having a fuel capacity NTE 5 gallons; airspeed NTE 55 knots; and power-off stall speed NTE 24 knots).

#### b. B. HHG do not include:

- 1. personal baggage when carried free on tickets;
- 2. automobiles, trucks, vans, and similar motor vehicles; airplanes; mobile homes; camper trailers; horse trailers; and farming vehicles (see Chapter 11 for POV shipment);
- 3. live animals including birds, fish and reptiles;

- 4. cordwood and building materials (B-133751, November 1, 1957 and B-180439, September 13, 1974);
- 5. HHG for resale, disposal or commercial use rather than for use by the employee and dependents;
- 6. privately owned live ammunition (B-130583, May 8, 1957);
- 7. boats (other than those in A6 above); and
- 8. hazardous articles including explosives, flammable and corrosive materials, poisons, propane gas tanks. See DoD 4500.9-R, DTR, Part IV, for examples of hazardous materials.
- c. Laws or carrier regulations may prohibit commercial shipment of certain articles not included in b. These articles frequently include materials
  - 1. liable to impregnate or otherwise damage equipment or other property (e.g., home canned items; liquid articles that are highly susceptible to breakage or leakage);
  - 2. that cannot be taken from the premises without damage to the article or the premises (e.g., bookcases built into walls);
  - 3. that are perishable (including frozen foods), that require refrigeration, or that are perishable plants.

#### HOUSEHOLD GOODS TRANSPORTATION

See TRANSPORTATION, HHG.

#### MEMBER (UNIFORMED SERVICES)

A commissioned officer, commissioned warrant officer, warrant officer, and enlisted person, including a retired person, of the Uniformed Services. (Note: "Retired person" includes members of the Fleet Reserve and Fleet Marine Corps Reserve who are in receipt of retainer pay.)

MILEAGE (ALLOWANCE)—PERMANENT CHANGE OF STATION (PCS) TRAVEL, FIRST DUTY STATION TRAVEL, HOUSE HUNTING TRIP (HHT) AND SEPARATION TRAVEL

A rate per mile for the authorized use of a privately owned automobile during official PCS travel. The amount depends on the official distance and the rate per mile for the circumstances (as determined in accordance with the applicable provisions of this regulation) and the number of authorized travelers transported. See par, C2505 for current rates.

#### MIXED MODES

Travel using a POC (including on a PCS, a rental vehicle procured at personal expense) and one or more of the following modes:

- a. Personally-procured commercial transportation (see par. C2207),
- b. Government-procured commercial transportation, and
- c. Government transportation.

#### MOBILE HOME

A mobile dwelling constructed or converted and intended for use as a permanent residence and designed to be moved, either self-propelled or by towing. It includes a house trailer, a privately owned railcar converted for use as a residence (51 Comp. Gen. 806 [1972]), and a boat an employee uses as the place of principal residence (62 Comp. Gen. 292 [1983]), as well as all HHG and PBP&E contained in the mobile home and owned or intended for use by the employee or dependents.

#### NON-FOREIGN OCONUS AREA

The states of Alaska and Hawaii, the Commonwealths of Puerto Rico and the Northern Mariana Islands, Guam, and U.S. territories and possessions.

#### NON-TEMPORARY STORAGE (NTS) OF HHG

Long-term HHG storage in lieu of transportation. NTS includes necessary packing, crating, unpacking, uncrating, transportation to and from the storage locations, storage, and other directly related necessary services. Also referred to as extended storage.

#### **OCONUS**

- a. Outside CONUS.
- b. For permanent duty travel purposes with respect to Alaska, Hawaii, Commonwealths of Puerto Rico and the Northern Mariana Islands, Guam, the territories and possessions of the United States, or foreign countries and similar geographic localities, an OCONUS place of employment outside the geographic locality where the actual residence is located.

#### OFFICIAL STATION

See PERMANENT DUTY STATION.

#### **OVERSEAS**

See OCONUS.

#### PERMANENT CHANGE OF STATION (PCS)

In general, the assignment, detail, or transfer of an employee to a different PDS under competent orders that do not specify the duty as temporary, provide for further assignment to a new PDS, or direct return to the old PDS.

#### PERMANENT DUTY STATION (PDS)

Also called OFFICIAL STATION. The employee's or invitational traveler's permanent work assignment location. To determine PCS travel allowances, a PDS is the building or other place (base, post, or activity) where an employee regularly reports for duty. For authorization under these regulations relating to the residence and the HHG and an employee's personal effects, PDS also means the residence or other quarters the employee regularly commutes from to work and to from work, except where the PDS is in a remote area where adequate family housing is not available within a reasonable daily commuting distance. In the latter situation, residence includes the dwelling where the employee's dependents reside or are to reside, but only if such residence reasonably relates to the PDS as determined by the appropriate travel-approving/directing official. Other than PCS travel allowances, a PDS is defined as:

#### a. For employees:

- 1. the corporate limits of the city or town where stationed, or
- 2. if not in an incorporated city or town the reservation, station, or established area (including established large reservation subdivisions) having definite boundaries where the employee is stationed.

#### b. For invitational travelers:

- 1. the corporate limits of the city or town where the home or principal business place exists, or
- if not in an incorporated city or town, the reservation, station, or other established area (including established large reservation subdivisions) having definite boundaries where the home or principal business place is located.

Note: Arlington County, VA, is a PDS. The Pentagon and other Government activities are located in Arlington, VA—even though they have Washington, D.C. mailing addresses (52 Comp. Gen. 751 [1973]). There are seven Districts on the Island of Oahu, Hawaii. Each of those seven districts is a separate and unique PDS. (19 Comp. Gen. 602 [1939] and 42 Comp. Gen. 460 [1963]).

#### PERMANENT DUTY TRAVEL

First duty station travel for a newly recruited employee or appointee, RAT, PCS travel, and separation travel. (See Chapter 4, Part A.)

#### PRIVATELY OWNED CONVEYANCE (POC)

(Also see TRANSPORTATION.) Any transportation mode used to move people from place to place, other than a government conveyance or common carrier, including a conveyance loaned to an employee for a charge or rented by an employee at personal expense for transportation on PCS or TDY when such rental conveyance has not been authorized/approved as a Special Conveyance as provided for in JTR, par. C2102-B. (Note: A common carrier or a conveyance owned by the government is not a POC.)

#### PRIVATELY OWNED (MOTOR) VEHICLE (POV)

Any motor vehicle owned by an employee or on a long-term lease (12 or more months) to an employee or that employee's dependent for the primary purpose of providing personal transportation that:

- c. is self-propelled;
- d. is licensed to travel on the public highways;
- e. is designed to carry passengers or HHG; and
- f. has four or more wheels (see Note 3 below).

Note 1: In the case of a leased vehicle, the employee must provide written authority from the leasing company to have the vehicle transported. All requirements stated in the lease, as well as requirements for POV entry into any location, are the employee's responsibility.

Note 2: A trailer, airplane, or any vehicle intended for commercial use is not a POV.

NOTE 3: CONUS: A motorcycle or moped may be designated as a POV (rather than as HHG) by the employee if the employer determines it is more advantageous and cost effective to the government to transport POVs than to drive to the new PDS. OCONUS: A motorcycle or moped may be shipped as the POV (rather than as HHG) on the same orders.

PROFESSIONAL BOOKS, PAPERS, AND EQUIPMENT (BP&E). (ALSO CALLED PRO OR PRO-GEAR.)

Articles of HHG in an employee's possession needed for the performance of official duties at the next or a later destination. Examples include:

- a. reference material:
- b. instruments, tools, and equipment peculiar to technicians, mechanics, and members of the professions;
- c. specialized clothing such as diving suits, astronauts' suits, flying suits and helmets, band uniforms, chaplains' vestments, and other specialized apparel not ordinary or usual uniform or clothing;
- d. communication equipment used by employees in association with the MARS (see DoDD 4650.2);
- e. individually owned or specially issued field clothing and equipment;
- f. an official award given to an employee by a Service (or a component thereof) for service performed by the employee in the employee's capacity or by a professional society/organization/U.S. or foreign government for significant contributions in connection with official duties; and
- g. personal computers and accompanying equipment used for official government business (i.e., CPU, monitor, keyboard, mouse, 1 printer, 1 set of small computer speakers).

Note: Excluded from PBP&E are sports equipment and office, household, or shop fixtures or furniture (such as bookcases, study/computer desks, file cabinets, and racks) of any kind even though used in connection with the PBP&E.

#### SEPARATION TRAVEL

See PERMANENT DUTY TRAVEL.

#### **SERVICES**

See UNIFORMED SERVICES.

#### SHORT DISTANCE MOVE

A PCS between PDSs within the same city/area when the new PDS is at least 50 miles from the old PDS. (See par. C4108-B for authorization/approval and exceptions to the 50-mile rule.)

#### SPARE PARTS FOR A POV

Extra tires, wheels, tire chains, tools, battery chargers, accessories, and those small and usually possessed parts or replacements used for repair and replacement of identical parts subject to normal use and wear (such as extra spark plugs, radiator hoses, fan belts, filters, gaskets, tune-up and repair kits), and items that serve a seasonal, an emergency, or a convenience purpose, such as special seats and beds

for children, bottle warmers and similar conveniences, snow and ice removal equipment, auxiliary heaters, and storage boxes.

#### SPECIAL CONVEYANCE

Commercially rented or hired vehicles other than a POC and other than those owned or under contract to an agency.

#### TEMPORARY STORAGE

Now referred to as "storage in transit" (SIT). See Chapter 8, Part D.

#### TERRITORIES AND POSSESSIONS OF THE UNITED STATES

(As released by the Office of the Geographer and Global Issues, July 1, 1997.)

- a. Commonwealth of the Northern Mariana Islands, (i.e., Saipan, Saipan Lagoon, Tinian, Aquijan, Rota, Farallon De Pajaros (Uracas), Maug, Asuncion, Agrihan, Pagan, Alamagan, Zealandia Banks, Guguan, Sarigan, Anatathan, Farallon De Medinilla, Esmeralda Banks, and Northern Islands Sanctuary). (Island names from website: www.saipan.com)
- b. Commonwealth of Puerto Rico
- c. American Samoa
- d. Baker Island
- e. Guam
- f. Howland Island
- g. Jarvis Island
- h. Johnston Atoll
- i. Kingman Reef
- j. Midway Islands
- k. Navassa Island
- l. Palmyra Atoll
- m. Virgin Islands
- n. Wake Island

#### TERRITORY OF THE UNITED STATES

(Also see TERRITORIES AND POSSESSIONS OF THE UNITED STATES.) An incorporated or unincorporated territory over which the United States exercises sovereignty, an area at times referred to as a dependent area or possession, and other areas subject to the jurisdiction of the United States.

Note: "Incorporated" territories refer to any areas that Congress has "incorporated" into the United States by making the Constitution applicable. "Unincorporated" territories refer to any territories where the Constitution has not been expressly and fully extended.

#### TRANSPORTATION

The means of moving people or things (particularly HHG) from one place to another.

#### TRANSPORTATION EXPENSES

The costs related to transportation. (See Chapter 4, Part O.)

#### TRANSPORTATION, HHG

The shipment, packing, crating, drayage, temporary storage, uncrating, and unpacking of HHG at government expense. Note: Includes special technical servicing to prepare household appliances for safe transport and use at destination, not connecting or disconnecting.

#### TRANSPORTATION, POV

Transportation by ship, including port-handling charges, to, from, and between OCONUS ports.

Note 1: The term does not include land transportation to or from such ports, except when transportation of a POV is authorized by 5 U.S.C. §5564 and is in accordance with Service regulations.

Note 2: Customs and other fees and charges required to effect entry of a POV into a country are not part of transportation. They are the employee's responsibility.

#### TRAVEL-APPROVING/DIRECTING OFFICIAL

Individuals who direct and approve/disapprove travel requests and vouchers before claim settlement. They ensure the necessity and justification for travel authorizations.

#### UNACCOMPANIED BAGGAGE

See BAGGAGE, UNACCOMPANIED.

#### **UNIFORMED SERVICES**

The Army, Navy, Air Force, Marine Corps, Coast Guard, National Oceanic and Atmospheric Administration Corps, and Public Health Service.

#### UNIT

A military element whose structure is prescribed by competent authority, such as in a table of organization and equipment.

#### **UNITED STATES**

The 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, the territories and possessions of the United States, and the areas and installations in the Republic of Panama that are made available to the United States pursuant to the Panama Canal Treaty of 1977 related agreements (as described in section 3(a) of the Panama Canal Act of 1979).

#### U.S. INSTALLATION

A base, post, yard, camp, or station:

- a. under the local command of a uniformed service,
- b. with permanent or semi-permanent-type troop shelters and a go vernment mess, and
- c. where there are U.S. Government operations.

Note: This term includes only that area actually occupied by those operations (plus the minimum surrounding area necessary for close-in security) and excludes contracted hotels not contained on and operated by the installation.