Fleet Management Services Follow-up
Department of General Services

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CountyStat

CountyStat Principles

- Require Data-Driven Performance
- Promote Strategic Governance
- Increase Government Transparency
- Foster a Culture of Accountability

Meeting Goal

- **This meeting is a follow-up to the 6/2/2009 meeting on Fleet Management's Preventive Maintenance program.**
  - That meeting focused on analyzing fleet maintenance and replacement schedule options and costs.

- **Meeting Goal: To provide updated analysis on Fleet operations, focusing on maintenance of County vehicles, and to highlight where improvements have been made and where challenges remain.**

Agenda

- **Meeting Goal**
- **Performance Data**
  - Headline Measures
    - Turnaround Time
    - Mean Distance Between Failures
  - Supplementary Measures
    - Fleet equipment availability
    - Average days out of service per bus for parts (Transit)
    - % of transit services daily bus requirements met
    - % work orders completed w/o delay for parts
    - Injury report
    - Customer satisfaction (Police vehicle maintenance)
    - Clean air commitment
- **Ongoing Follow-ups**
- **Wrap-up**

Fleet Management Services Performance Measures Contextual Data

Fleet Management operates 5 main shops in 4 main facilities.

- **Transit shops in Silver Spring, Kensington and Gaithersburg maintain the bus fleet for Ride On transit service.**
- **The Gaithersburg location also hosts the Heavy shop.**
- **The Seven Locks location manages and maintains the County's Light fleet, including police and emergency vehicles, vans, trucks, SUV's and motorcycles.**

Expenditures Per Category of Equipment Section

	FY09	FY10	FY11 (EST)
Heavy Equipment Section (HES)	$9,240,969	$9,849,799	$3,254,423
Automotive Equipment Section (AES)			$6,300,076
Transit Equipment Section (TES)	$17,523,767	$17,140,358	$16,414,354
Total	**$26,764,736**	**$26,990,157**	**$25,968,853**

Note: The totals listed reflect expenditures per category and do not reflect the actual maintenance expenditures for each area.

Fleet Management Services Performance Measures
Contextual Data

Fleet Management operates 5 main shops in 4 main facilities.

Vehicle Class	FY09	FY10	FY11 (EST)**
Heavy equipment	482	456	456
Public Safety light equipment	1410	1369	1371
Administrative vehicles (Including Fire Admin)	806 + 134	785 + 122	724 + 120
Transit equipment	480	462	390
Personnel			
Heavy Equipment*	35	35	35
Light Equipment*	3	3	3
Transit *	113	113	113
Total	151	151	151

NOTE:

*Number of positions assigned to each shop, however not all are filled at all times during the year.

**FY11 numbers represent estimates only until the close of FY11.

Fleet Management Services Performance Measures Reviewed

Fleet Management Services tracks the following headline performance measures for transit equipment, heavy equipment, administrative light equipment, and public safety light equipment:

Headline Measurements

- Turnaround time
- Mean distance between failures

Supplementary Measurements

A. Fleet equipment availability
B. Average days out of service per bus for parts (Transit)
C. % of transit services daily bus requirements met
D. % work orders completed w/o delay for parts
E. Injury report
F. Customer satisfaction (Police vehicle maintenance)
G. Clean air commitment

Source: FY12 Recommended Budget document, Department of General Services – Fleet Management Services

Headline Measure #1: Turnaround Time Annually (Days)

Measure: Average amount of time equipment is unavailable for operations during each shop visit (in days).
Explanation: The shorter the time in the shop (in days) the great availability of that vehicle for use.

Vehicle Class	Actual FY09**	Actual FY10	Actual FY11	Target FY12	Target FY13
Transit equipment	6.5	5.0	2.4	2.7	2.6
Public Safety light equipment	3.0	3.3	1.4	1.4	1.3
Administrative vehicles	1.1	2.8	1.3	1.5	1.4
Heavy equipment	10.2	8.0	8.9	8.8	8.7

Shortening of turnaround times in most vehicle types from FY10 to FY11. The fleet is aging and the mileage is increasing. Planned vehicle replacements should provide some relief in FY13.

Notes: Grey FY 2009: Prior to Benchmarking Start Year of FY10

Headline Measure #1: Turnaround Time Quarterly (Days)

Measure: Average amount of time equipment is unavailable for operations during each shop visit (in days).
Explanation: The shorter the time in the shop (in days) the great availability of that vehicle for use.

Vehicle Class	FY10 Q1	FY10 Q2	FY10 Q3	FY10 Q4	FY11 Q1	FY11 Q2	FY11 Q3	FY11 Q4
Transit equipment	5.9	4.8	3.0	3.2	1.3	2.7	2.7	2.9
Public Safety light equipment	1.7	2.8	3.7	2.7	2.2	0.6	1.4	1.2
Administrative vehicles	5.8	3.2	3.0	1.9	2.0	0.8	1.6	0.7
Heavy equipment	9.0	8.8	1.9	9.7	8.6	8.9	7.7	10.2

With the exception of Heavy Equipment, nearly all vehicle classes experienced declines in turnaround times.

NOTE: Anomalies were observed in the data for Transit in FY11 Q1 and Heavy in FY10 Q3.

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Providing supervisory and technical training to improve productivity and enhance operations.
- Piloting a new Preventive Maintenance Inspection Form which has indicated lower inspection times and has allowed more time for corrective maintenance.
- Created parts section as a separate function in DFMS and instituted inventory management training.

Headline Measure #2: Mean Distance Between Failures

Measure: Average amount of miles traveled before breakdown.

Explanation: A failure is an event that requires vehicle to be removed from service.

Vehicle Class	Actual FY09*	Actual FY10	Actual FY11	Target FY12	Target FY13
Transit equipment	2,847	18,195	22,487	23,049	23,625
Public Safety light equipment	2,848	11,833	13,696	13,901	14,109
Administrative vehicles	2,906	8,926	10,260	10,414	10,570
Heavy equipment	1,559	5,100	7,444	7,556	7,669

Improvements from benchmark year FY10 to FY11.

Notes: Grey FY 2009: Prior to Benchmarking Start Year of FY10

* Fleet has refined these measures to exclude small or incidental part failures beginning November 2009. In FY10 included are mechanical failures that require towing or mechanical fixes performed via road call. A vehicle that can be safely driven is not considered a mechanical failure.

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Increased adherence to Preventative Maintenance Schedules to prevent mechanical failures
- Providing supervisory and technical training to improve productivity and enhance operations.
- Piloting a new Preventive Maintenance Inspection Form which has indicated lower inspection times and has allowed more time for corrective maintenance.
- Created parts section as a separate function in DFMS and instituted inventory management training.

Mean Distance Between Failures References with Other Jurisdictions

CountyStat researched what other jurisdictions report their mean distance between failure.

Location	FY 09	Actual FY09	Actual FY10	ActualFY11	Target FY12
MTA Long Island Bus	5.57 Yrs*	2,605	3,744	N/A	3,735
WMATA (All Bus Types)	7.0 yrs	5,669	6,054	7,590	7,400

WMATA Definition: The number of revenue miles traveled before a mechanical breakdown. A failure is an event that requires the bus to be removed from service or deviate from the schedule.
Calculation: Number of failures / miles

Mean distance between failures is NOT comparable between jurisdictions because of different definitions of failures.

Sources: WMATA, Vital Signs Report; MTA Long Island Bus, 2010 Annual Report.
*Age of fleet from National Transit Database FY2009, Transit Profile All Transit Agencies
/www.ntdprogram.gov/ntdprogram/pubs/profiles/2009/Transit%20Profiles_All%20Transit%20Agencies_Complete%20Set.pdf

Supplementary Measures
A. Fleet Equipment Availability

Measure: Average percentage of equipment that is available for immediate use.
Explanation: Equipment availability demonstrates the effectiveness of the Heavy Equipment and Automotive shops in keeping County vehicles on the road and in service.

Vehicle Class	Actual FY09	Actual FY10	Actual FY11	Target FY12	Target FY13
Public Safety light equipment	98%	97.3%	98.7%	98%	98%
Heavy equipment	95%	94.7%	92.9%	93.8%	94.7%

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Use of contractors to supplement workforce
- Increased communication with vendors to expedite repairs and decrease downtime

Supplementary Measures
B. Percent of Transit Services Daily Bus Requirements Met

Measure: Average percent of transit buses available at Transit's pull outs.
Explanation: This measures the availability of operable transit buses at Transit's pull outs.

Actual FY10	Actual FY11	Target FY12	Target FY13
97.7%	98.2%	98.3%	98.4%

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Increased communication with vendors to expedite repairs and decrease downtime
- Providing supervisory and technical training to improve productivity and enhance operations.
- Piloting a new Preventive Maintenance Inspection Form which has indicated lower inspection times and has allowed more time for corrective maintenance.

Supplementary Measures

C. Average days out of service per bus for parts

Measure: Average number of days bus is not in service because of lack of parts for repairs.
Explanation: This measure is for the effectiveness of the Parts Department in selecting the appropriate parts to stock.

Vehicle Class	Actual FY09	Actual FY10	Actual FY11	Target FY12	Target FY13
Transit	4.0	3.9	3.0	2.9	2.8

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Increased communication with vendors to expedite repairs and decrease downtime
- Created parts section as a separate function in DFMS and instituted inventory management training.

Note: Measurement refers to parts that are not under warranty.

Supplementary Measures

D. Percent of work orders completed without delay for parts

Measure: Percent of work orders completed without delays to due to lack of parts.
Explanation: This measure is for the effectiveness of the Parts Department in selecting the optimal number of parts to keep on stock.

Actual FY09	Actual FY10	Actual FY11	Target FY12	Target FY13
89.5%	89.4%	90.0%	91.0%	92.0%

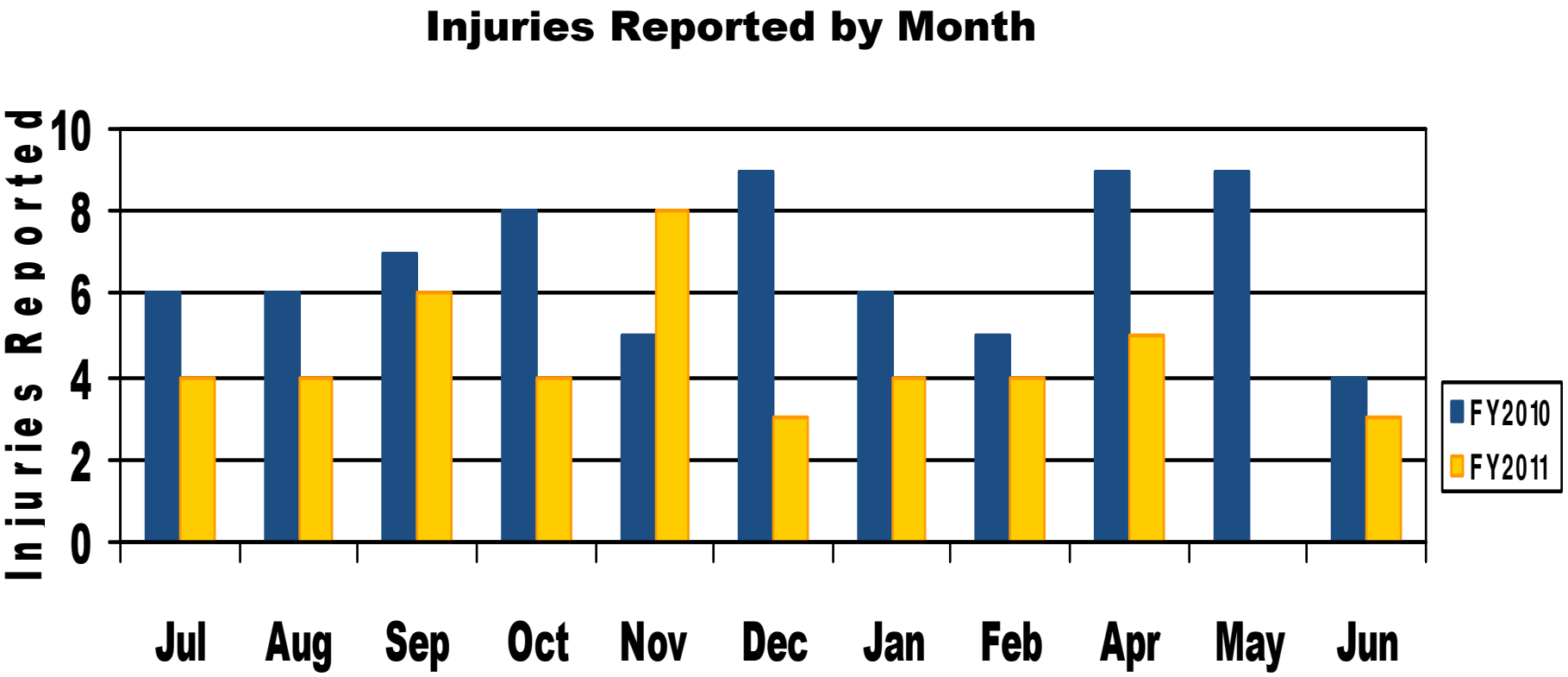
Strategies Implemented in DGS-Fleet Management to Improve Operations

- Created parts section as a separate function in DFMS and instituted inventory management training.
- Moved to bulk buying of like commodities, reducing costs through bulk purchase. Items are stored at a central location distributed to depot storerooms.
- Moved from annual to quarterly parts inventory ensuring more accurate inventory controls.
  - Stocking proper quantities and controlling minimum/maximum levels lessens out of stock situations, provides better control over obsolescence and improves cost control.
  - Further emphasis by performing monthly spot checks.

Note: Measurement refers to parts that are not under warranty.

Supplementary Measures
E. Injury Report

Measure: Number of job related injuries reported per month.
Explanation: This measure is for the effectiveness of safety procedures and preventative strategies.



Supplementary Measures
E. Injury Report

Cumulative Injuries Report By Month

Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
FY2010 Cumulative	6	12	19	27	32	41	47	52	63	72	81	85
FY2011 Cumulative	4	8	14	18	26	29	33	37	39	44	44	47
Difference	-2	-4	-5	-9	-6	-12	-14	-15	-24	-28	-37	-38
% Difference	-33%	-33%	-26%	-33%	-19%	-29%	-30%	-29%	-38%	-39%	-46%	-45%

From FY10 to FY11 there was a cumulative 45% decline in injuries.

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Conducting accident investigations and examining strategies to reduce workplace accidents and injuries to enhance employees' safety on the job, thereby improving productivity and reducing workers compensation costs.

- OSHA training and various safety trainings on at least 20 different topics to improve awareness and prevention of accidents.

Supplementary Measures
F. Customer Satisfaction for Police Vehicle Maintenance

Measure: Percentage of customers marking "Very Good" or "Satisfactory" on customer satisfaction survey.

Explanation: This measure is for the satisfaction of vehicle users of vehicle maintenance.

Vehicle Class	Actual FY09	Actual FY10	Actual FY11	Target FY12	Target FY13
Public Safety light equipment	99%	98.2%	99%	99%	99%

Background on Customer Satisfaction Survey

- Who receives it?
  - A Customer Service Evaluation (Green Card) is distributed when a vehicle is picked up. Once the evaluation is returned, the information is tallied and reported.
- What questions are asked?
  - Service met expectation?, Service personnel courteous?, Was repair completed on time? Comments;
  - Overall service/repair quality – Very Good/Satisfactory/Unsatisfactory; Comments

How many are distributed and how many are returned (response rate)?

	Public Safety Work Orders	CSE Returned (Public Safety)	Response Rate
FY10	11,413	434	3.8%
FY11	12,617	442	3.5%

Supplementary Measures
G. Clean Air Commitment

Measure: Gallons of fuel used per fiscal year.

Explanation: This measure is for the amount of fuel used across all vehicles types.

	Actual FY09	Actual FY10	Actual FY11	Target FY12	Target FY13
Alternative Fuels Used (Gallons)	**3,442,832**	**1,046,138**	**1,069,500**	**1,069,500**	**1,069,500**
Diesel/Unleaded Used (Gallons)*	**2,818,881**	**5,670,480**	**5,065,007**	**5,065,007**	**5,065,007**

Changes in alternative fuel versus diesel/unleaded fuel is attributed to implementation of best practices with in the industry .

*Includes “Clean Diesel”

Supplementary Measures
G. Clean Air Commitment

Strategies Implemented in DGS-Fleet Management to Improve Operations

- Improved working conditions and environmental impact by reducing the use of aerosol products, purchasing “green products” for cleaners and degreasers, using environmentally friendly fluorescent lamp disposal, and recycling rechargeable and vehicle batteries, antifreeze, waste oil and other products.

- Specific trainings were conducted for increasing environmental awareness such as pollution prevention.

- Training key personnel for underground storage tank inspection and testing to enhance compliance with MD Department of Environment regulations.

Agenda

- Meeting Goal
- Performance Data
  - Headline Measures
  - Supplementary Measures
- **Ongoing Follow-ups**
- **Wrap-up**

Updates on On-Going Follow-ups: Preventive Maintenance

An FTA report from July 2007 found that 83% of preventive maintenance was overdue at one garage, and 60% of preventive maintenance was overdue at the other garage

In FY09 DGS hired an outside consultant to determine why Preventive Maintenance was not being done on time. The high-level finds are:

- High level of turn over in staff and "part time" staff equivalency.
- The acquisition of buses (International/Champion) that are poorly suited for the duty cycles assigned them.
- DFMS having too little say in the choice of equipment it must maintain.
- Maintenance facilities were inadequate to the task of maintaining MCs transit bus fleet in a timely and cost efficient manner.
- The MOU with the Union that allows employees to pick their specific duties and work shifts. Far too often, an employee who has spent 18 months gaining proficiency in a particular technical area will bid out of the job on the next bid. The MOU pick keeps the workforce in near constant flux
- Bus to mechanic ratio – FTA Standard is: 2.6:1
  At the end of FY10, DFMS was: 5.25:1
  At the end of FY11, DFMS was: 4.43:1

Updates on On-Going Follow-ups: Preventive Maintenance

Develop a regular reporting mechanism to examine percent of buses receiving preventive maintenance on time. Develop strategies for improving performance.

Update Deadline: 12/16/2011 Status of item: In Progress

What DFMS has done to improve

- DFMS has taken over primary responsibility for the selection of buses acquired
- New EMOC to be completed in two years
- Renovation of BMF is a CIP project
- Develop an in-house training program
- Use of contractors to supplement workforce
- Revised PM A & B inspection forms
- Increased communication with vendors to expedite repairs and decrease downtime
- Enhanced mileage reviews and updates in the FASTER System
- Teamwork

EMOC Transit Overdue PMs were reduced by 80% and Completed PMs were increased by 31% from FY10 to FY11.

Updates on On-Going Follow-ups: Total Cost of Vehicle Model

Develop total cost of vehicle model for transit and light equipment vehicles to better understand which particular vehicle purchases are most cost effective.

Update Deadline : 12/16/2011 Status of item: In Progress

DFMS considers cost as only one factor when evaluating vehicle purchases.

- Criteria pertinent to the type of vehicles being evaluated are developed and prioritized often with a weighting factor applied. In the case of sedans, image brands and performance brands are excluded from consideration.
- Some of the criteria used are safety ratings; environmental considerations such as emissions, fuel economy and fuel type; warranties; ergonomics; and County required features such as anti-lock brakes for sedans.
- Criteria for transit vehicles also includes meeting Federal Transit Association (FTA) regulations.
- Public Safety Light Fleet vehicle purchases are spread across all three major suppliers, Chevrolet, Dodge and Ford, to mitigate the risk of a safety recall by reducing the impact on the fleet.

Updates on On-Going Follow-ups: Mileage Tracking Accuracy

Add mileage tracking accuracy as a sub-measure of the Department of General Services and monitor change over time.

Update Deadline : 01/16/2012 Status of item: In Progress

A Capital Improvement Project was approved that addresses the fuel management system. Phase I of the CIP is the replacement of the Fire and Rescue fuel management system. DFMS will be included under Phase II.

In the interim, DFMS has all the technical employees visually checking mileage to ensure that the tracking of mileage is recorded accurately.

Wrap-up

- **Follow-up items**