



Metro

Metropolitan Transportation Authority

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NOVEMBER 15, 2005

TO: BOARD OF DIRECTORS

THROUGH: ROGER SNOBLE
CHIEF EXECUTIVE OFFICER

FROM: JOHN B. CATOE, JR.
DEPUTY CHIEF EXECUTIVE OFFICER

SUBJECT: METRO BUS FLEET REPLACEMENT PLANS
FLEET RELIABILITY

ISSUE

At its September 22, 2005 meeting, the Board inquired about Metro's average bus fleet age, and subsequently asked for additional information and statistics relating to Metro's bus fleet.

BACKGROUND

As requested, the attached report summarizes current fleet status and reliability information.

Fleet Inventory: As of October 1, 2005, Metro was operating an active fleet of 2,510 vehicles. Currently there are 393 vehicles over 12 years of age; 299 of these are former methanol/ethanol buses converted to diesel, which extends their lives approximately 2 years. The remaining 94 buses are being kept in service to meet Consent Decree related service obligations until new vehicles arrive.

Planned Replacement: Metro has an on-going fleet replacement program that ensures scheduled replacement of our oldest vehicles after 13 years. Additionally, Metro will keep the average fleet age between 6 and 7 years by planned vehicle replacement (current fleet age is approximately 6.3 years). Other sampled transit properties average fleet age range as follows:

Transit Agency	Avg. Fleet Age ⁱ
Washington D.C.	8.2 Years
Chicago	9.0 Years
Seattle	6.6 Years
Boston	11.6 Years
New York	6.7 Years
Orange County	7.0 Years
San Francisco	7.2 Years

Pending Purchases: In the last year, Metro received over 200 new vehicles, and is scheduled to receive approximately 100 – 150 new vehicles per year for the next three years.

Fleet Reliability: In terms of fleet reliability, from January – May 2005 (most recent period available), bus fleet reliability averaged 2,945 miles/roadcall. This data includes both mechanical failures as well as other non-mechanical service disruptions (e.g. sick passengers, accidents).

ATTACHMENTS

- A. Active Fleet Inventory and Assignments as of October 1, 2005.
- B. Metro Fleet “Total Ownership” (Includes inactive transit vehicles) as of October 1, 2005.
- C. Fleet Age Comparison with other Transit Properties.
- D. Summary of Planned Vehicle Retirements
- E. New Vehicle Procurements for next five years (from Metro Fleet Management Plan).
- F. Bus Fleet Reliability

Prepared by: Richard Hunt, General Manager, San Fernando Valley Sector

¹ Data from Washington, Chicago, Seattle, Boston and New York is from APTA's National Transit Database for 2003 (most recent published information available). Data from OCTA and Chicago was reported by those agencies for current fleet age.

ATTACHMENT A

Bus Assignment By Series/Service Sectors - Operating Divisions
(Active Fleet)

As of October 1, 2005

Series	Make	Year	GATEWAY CITY SERVICE SECTOR			SAN FERNANDO VALLEY SERVICE SECTOR			SAN GABRIEL VALLEY SERVICE SECTOR			SOUTH BAY SERVICE SECTOR			WEST/ CENTRAL SERVICE SECTOR			TOTAL ALL SERVICE SECTORS	
			DIV 1	DIV 2	TOTAL	DIV 8	DIV 15	TOTAL	DIV 3	DIV 9	TOTAL	DIV 5	DIV 18	TOTAL	DIV 6	DIV 7	DIV 10		TOTAL
12-1502	TMC-CONV/DIESEL	1992	25	30	55	21	24	45	7	21	28	26	31	57	49	27	12	88	273
1970-99	TMC-CONV/DIESEL	1989	0	0	0	2	0	2	0	0	0	5	0	5	6	0	13	19	26
20-2266	TMC-DIESEL	1988	6	3	9	5	11	16	0	6	6	2	7	9	3	6	9	18	58
23-2402	TMC-DIESEL	1989	0	0	0	0	1	1	0	0	0	0	4	4	0	1	0	1	6
30-3019	NEW FLYER LF	1998	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	20	20
4400	GMC RTSII	1982	0	0	0	0	0	0	23	7	30	0	0	0	0	0	0	0	30
45-4695	NEOP CNG HF	1995	0	0	0	98	98	196	0	0	0	0	0	0	0	0	0	0	196
46-4793	NEOP CNG HF	1997	0	0	0	24	0	24	0	0	0	0	63	63	0	0	11	11	98
50-5222	NEW FLYER HF	1999	0	0	0	0	0	0	0	0	0	145	0	145	0	77	0	77	222
53-5522	NEW FLYER LF	2000	112	51	163	0	0	0	0	0	0	0	47	47	0	0	11	11	221
63-6600	NEOP CNG HF	97,98	0	0	0	0	0	0	0	0	0	0	129	129	0	0	169	298	
67-6799	NEOP CNG HF	1999	0	0	0	0	0	0	99	0	99	0	0	0	0	0	0	0	99
70-7214	NABI LF	2000	31	0	31	1	31	32	64	0	64	2	3	5	0	62	0	62	194
73-7514	NABI LF	2001	26	51	77	10	34	44	18	28	46	0	6	14	0	45	0	45	212
7525-99	NABI LF (STEEL)	2005	0	15	15	0	15	15	0	15	15	8	6	21	0	15	0	15	74
76-7949	NABI LF	2001	18	52	70	25	57	82	0	127	127	59	0	59	0	11	0	11	349
7980-99	NABI LF (COMPOSITE)	2002	0	0	0	0	0	0	0	0	0	7	0	7	0	11	0	11	18
80-8099	NABI (COMP) 45FT	2004	24	0	24	0	0	0	0	0	0	2	0	2	0	0	60	60	86
92-9599	NABI ARTIC 60FT	2005	0	0	0	30	0	30	0	0	0	0	0	0	0	0	0	0	30
Total			242	202	444	216	271	487	211	204	415	256	290	546	78	255	285	618	2510

Buses over 12 Years

ATTACHMENT B

Bus Assignment By Series By Service Sectors/Division/Locator
(Total Ownership)
As of October 1, 2005

Series	Make	Year Service Sectors	Total All Service Sectors	Contingency Fleet	RRC	Pending Evaluation For Sale	On Sales List	Make Ready	MV Transit	First Transit	SO Land Transit	Trans. Cncept	Leased Buses	Special Assignments (*)	Total All Location
1100	NEOPLAN	1987	0	0	0	2	0	0	0	0	0	0	0	0	2
12-1502	TMC-CONV/DIESEL	1992	273	0	0	13	0	0	0	0	3	0	4	9	302
1970-99	TMC-CONV/DIESEL	1989	26	0	0	4	0	0	0	0	0	0	0	0	30
20-2266	TMC-DIESEL	1988	58	0	0	35	0	0	0	0	1	0	0	26	120
23-2402	TMC-DIESEL	1989	6	0	0	13	0	0	0	0	9	0	0	10	38
29-2932	FLX METRO	1992	0	0	0	10	0	0	0	0	0	0	0	0	70
30-3019	NEW FLYER LF	1998	20	0	0	0	0	0	0	0	0	0	0	0	20
4400	GMC RTSII	1982	30	0	0	0	0	0	0	0	0	0	0	0	30
45-4695	NEOP CNG HF	1995	196	0	0	0	0	0	0	0	0	0	0	0	196
46-4793	NEOP CNG HF	1997	98	0	0	0	0	0	0	0	0	0	0	0	98
50-5222	NEW FLYER HF	1999	222	0	0	0	0	0	0	0	0	0	0	1	223
53-5522	NEW FLYER LF	2000	221	0	0	0	0	1	0	0	0	0	0	1	223
63-6600	NEOP CNG HF	97,98	298	0	0	1	0	0	0	0	0	0	0	1	300
67-6799	NEOP CNG HF	1999	99	0	0	0	0	0	0	0	0	0	0	0	100
70-7214	NABI LF	2000	194	0	0	13	0	2	0	0	0	0	0	6	215
73-7514	NABI LF	2001	212	0	0	2	0	0	0	0	0	0	0	1	215
7525-99	NABI LF (STEEL)	2005	74	0	0	0	0	1	0	0	0	0	0	0	75
76-7949	NABI LF	2001	349	0	0	1	0	0	0	0	0	0	0	0	350
7980-99	NABI LF (COMPOSITE)	2002	18	0	0	0	0	2	0	0	0	0	0	0	20
80-8099	NABI (COMP) 45FT	2004	86	0	0	0	0	13	0	0	0	0	0	0	99
92-9599	NABI ARTIC 60FT	2005	30	0	0	0	0	21	0	0	0	0	0	0	57
9837-70	EL DORADO	2002	0	0	0	0	0	0	0	13	0	21	0	0	34
9900	ELD/THMS/GIL/BB	2001	0	0	0	0	0	0	4	7	22	26	0	0	59
11000	ORION	2001	0	0	0	0	0	0	0	67	0	0	0	0	67
Total			2510	0	0	94	0	40	4	87	35	47	4	56	2877

Buses Over 12 Years

Top Ten US Transit Properties

Fleet Age

	Fleet Age
New York Transit	6.7 Years**
New Jersey Transit	5.5 Years**
LA Metro	6.3 YEARS
CTA (Chicago)	9 Years*
WMATA (Washington DC)	8.2 Years**
King County (Seattle)	6.6 Years**
SEPTA (Philadelphia)	7.4 Years**
Houston Metro	4.9 Years**
MBTA (Boston)	11.6 Years**
Regional Transit District (Denver)	4.9 Years**
National Average (as reported by APTA)	7.5 Years**

* Transit property's current estimated average age.

** From National Transit Database. 2003 is most recent period with published information.

ATTACHMENT D

Projected Bus Retirement Schedule (Assumes Buses Retired during 13th Year of Service)

Series	Make	Model Year	FY06	FY07	FY08	FY09	FY10	FY11	Total
12-1502	TMC-CONV/DIESEL	1992	175	112	15				302
1970-99	TMC-CONV/DIESEL	1989	26						26
20 - 2402	TMC - Diesel*	88, 89	58						58
28-2870	FLX METRO	1990							0
29-2932	FLX METRO*	1992	0						0
30-3019	NEW FLYER	1998							0
4400	GMC RTSII	1982	30						30
45-4695	NEOP CNG (LG)	1995			15	124	57		196
46-4793	NEOP CNG (NE)	96, 97					61	37	98
50-5222	NEW FLYER HF	1999							0
53-5522	NEW FLYER LF	2001							0
63-6600	NEOP CNG (NM)	97, 98						193	193
67-6799	NEOP CNG (OV)	1999							0
70-7214	NABI 40LFW	2000							0
73-7514	NABI 40LFW	2001							0
76-7969	NABI 40LFW	2002							0
Retirement Eligible Buses (Planned Replacement)			289	112	30	124	118	230	903
Planned New Buses			167	100	100	100	100	100	667

Metro Fleet Inventory	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	
DESCRIPTION OF MAJOR PLANNED CHANGES	4 Metro Rapids (0): - Western - Santa Monica - Lincoln - Reseda Artic. Deployment Metro Connections	4 Metro Rapids (0): - Central - San Fernando/ Lankershim - Pico - Atlantic Artic. Deployment Metro Connections	6 Metro Rapids (0): - West Olympic - Carvey-Chavez - Manchester - San Fernando (south) - Sepulveda (south) - Torrance/Long Beach Artic. Deployment	Eastside Gold Line Rail Extension and Bus Interface Enhancements (+32 40-foot buses) Artic. Deployment	Final Planned Artic. Deployment High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses	High-capacity buses to replace 40-foot buses
Total Active Fleet (Incl. Spares)	30 35-foot buses 1120 40-foot buses (high floor) 1078 40-foot buses (low floor) 100 45-foot buses 200 Articulated buses 0 High-Capacity Bus 0 Hybrid and ZEV Bus 2528	30 1000 1078 100 294 0 6 2508	30 894 1078 250 294 0 6 2502	30 776 1078 250 344 0 6 2484	30 659 1078 300 394 0 6 2461	30 573 1078 300 394 0 36 2375	30 440 1078 300 394 125 61 2367	30 138 1078 300 394 111 2315	30 0 856 300 394 161 2205	30 0 532 300 394 750 2006	
Inactive Buses											
Pending Eval./Sale pending, Make Ready, Other	100	100	100	100	100	100	100	100	100	100	
Contract Buses	175	175	175	175	175	175	175	175	175	175	
Metro Fleet - Total Ownership	2803	2783	2777	2759	2736	2650	2642	2590	2480	2281	
Seats in Active Service (not incl. Spares)											
Active Seats In-Service (Metro Only):	90,300	90,465	90,500	90,563	90,663	87,581	88,232	88,243	86,732	81,348	
Total Seats In-Service (Contractor Buses):	5,833	5,833	5,833	5,833	5,833	5,833	5,833	5,833	5,833	5,833	
Total Seats	96,133	96,298	96,333	96,397	96,496	93,414	94,065	94,077	92,565	87,182	

Bus Procurement Schedule	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	Total
NABI - Articulated Buses	167										167
NABI - 60' Articulated Buses - Options		94		100	100	70					364
45' Compo-Buses (New Procurement)			100								100
ATVC Hybrid Buses		6									6
High-Capacity Bus (2012-2015)							125	250	250	125	750
Zero Emission Buses						30	25	50	50	25	180
Total Planned Procurement:	167	100	100	100	100	100	150	300	300	150	1567
Average Fleet Age (13 Year Replacement Cycle):	6.3	6.5	6.7	6.9	7.2	7.7	7.9	7.3	6.5	6.0	

Seat assumptions:
 40-foot bus = 40 seats
 45-foot bus = 46 seats
 60-foot bus = 57 seats
 High-capacity bus = 52 seats (hybrid average between 45-foot bus and a 60-foot bus)

BUS FLEET RELIABILITY

ATTACHMENT F

BUS SERIES	Total Mileage, Jan-May 2005	Total Road Calls Jan-May 2005	Total Miles B/T Roadcalls
7525-99 NABI LF (CNG)	173,818	25	6,953
30-3019 NEW FLYER Diesel	247,166	37	6,680
45-4695 NEOP CNG (LG)	3,809,148	686	5,553
7980-99 NABI LF CNG	393,954	74	5,324
76-7949 NABI LF CNG	7,239,727	1,998	3,623
80-8099 NABI (COMP) 45FT	966,832	272	3,555
1970-99 TMC-CONV/DIESEL	295,429	86	3,435
4400 GMC RTSII Diesel	459,725	139	3,307
12-1502 TMC-CONV/DIESEL	3,370,866	1,093	3,084
63-6600 NEOP CNG (NM)	5,991,004	1,974	3,035
50-5222 NEW FLYER HF	3,799,011	1,316	2,887
46-4793 NEOP CNG (NE)	1,716,600	599	2,866
73-7514 NABI LF CNG	4,349,869	1,528	2,847
20-2266 TMC-DIESEL	1,210,027	441	2,744
67-6799 NEOP CNG (OV)	1,949,120	759	2,568
23-2402 TMC-DIESEL	427,918	178	2,404
70-7214 NABI LF CNG	3,441,761	1,531	2,248
29-2932 FLX METRO	95,483	49	1,949
53-5522 NEW FLYER LF CNG	3,926,983	2,112	1,859
TOTAL	43,864,441	14,897	2,945

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