QUARTERLY PROJECT STATUS REPORT

2550 Rail Vehicle Program

March 2006





2550 RAIL VEHICLE PROGRAM

QUARTERLY PROJECT STATUS REPORT

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND FUNDS FROM THE STATE OF CALIFORNIA.

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PROJECT OVERVIEW

The 2550 Light Rail vehicle base contract for the 50 LRV cars is with Ansaldobreda, S.p.A. of Pistoia and Naples, Italy. The 2550 contract also includes two 50-LRV pre-priced options for future growth, expansions, and new lines. These options will require future Board approval in order to become a binding contract requirement.

This 2550 Light Rail Vehicle Project is being managed by an innovative Integrated Project Team consisting of four uniquely experienced MTA in-house management staff. This approach was commissioned to not only increase direct staff accountability for the quality and reliability of the resulting LRV but to increase management efficiency by reduced reliance on expensive non- accountable consultants both in management and oversight.

Project accomplishments through the period ending March 2006 included:

- **1.** The Metro Integrated Project Team (IPT) discussed the status of Contract submittals, reviews and approvals, specific design issues and the status of the in-process Buy America Interim Audit directed by the IPT.
- **2.** Ansaldobreda mobilization and staffing for the Pittsburg, California plant essentially complete. The Contractor will receive the first A& B carshells in April 2006 to start operations in the second quarter of calendar 2006 with one shift working 5-days per week.
- **3.** Assembly of carshells in the Pistoia, Italy plant continued with the goal to ship these carshells to the USA starting in April 2006.
- **4.** Major vehicle sub-assemblies in the Pistoia, Italy plant, such as truck frames, traction motors, bolsters, HVAC units, etc., commenced shipment to the Pittsburg, California plant in the first quarter of calendar 2006.
- **5.** Ansaldobreda Testing Engineers continue in Los Angeles with proof-of-design with the two LRVs at Los Angeles Metro. One LRV has successfully operated on the Pasadena Gold Line, the Metro Green line, and the Metro Blue Line. The LRV has also successfully traversed the 6-7% grade of the Green Line/Blue Line connector and effectively completed preliminary roll-back tests.
- **6.** The proof-of-design testing noted above has provided the IPT with confidence that the MTA will receive from Ansaldobreda a light rail vehicle that is efficient, reliable and more easily maintainable than the existing light rail fleet. Detailed inspection by the IPT during this testing has revealed no major system problems but produced numerous comments on minor corrections necessary for acceptance.
- **7.** Ansaldobreda Engineers met with the IPT to discuss consideration for the forecast delays in delivery of the U.S. final-assembled vehicles to Metro in Los Angeles.

MANAGEMENT ISSUES

Concern No. 1: The FTA expressed its concern about Ansaldobreda's Buy America compliance.

<u>Status/Action:</u> The IPT continues to conduct and finalize the mid-Contract Buy America audit it commissioned earlier in 2005. This is not a requirement of either the Contract or the FFGA but was and is considered by the IPT to be a prudent action to confirm Ansaldobreda's compliance with the Contract's Buy America provision. The audit will complete in the second quarter of calendar 2006 after final assembly commences in Pittsburg, California. The IPT, as always, continued to direct and admonish Ansaldobreda in person and in writing that Buy-America compliance is both fundamental and mandatory.

Concern No. 2: Documentation submittals are close to complete. However, several submittals continue lagging behind the contract schedule.

<u>Status/Action:</u> Ansaldobreda is making an effort to "catch-up" through the efforts of their documentation consultant. Major progress has been accomplished toward completed manuals.

Concern No. 3: In March 2006, Ansaldobreda presented the IPT with a proposed revised "worse-case" schedule displaying a 16 month slip in the Contract Schedule but still sufficient to meet the operational schedules of the next two light rail lines that are in early construction. The IPT has not accepted this proposed schedule yet as Ansaldobreda has presently offered no consideration to Metro for this potential schedule extension.

<u>Status/Action:</u> In May the IPT and Ansaldobreda have scheduled negotiations to pursue solutions to schedule delays, consideration or compensation to Metro for any such delays. Contract Milestones as well as delivery dates in the Contract are subject to Liquidated Damages and these monetary amounts will be levied and collected from future billings from Ansaldobreda.

Concern No. 4: The car-borne signaling system is a concern to the IPT based upon the Metro's experience with the same firm, US&S, on the previous LRV procurement. The concern is not with the hardware but with the software development by US&S for three (3) different Automatic Train Protection (ATP) and Train to Wayside Communications (TWC) systems which is another aspect that sets this rail-car design apart from other U.S. light rail-car fleets that typically only have one (1) ATP & TWC system per rail-car fleet.

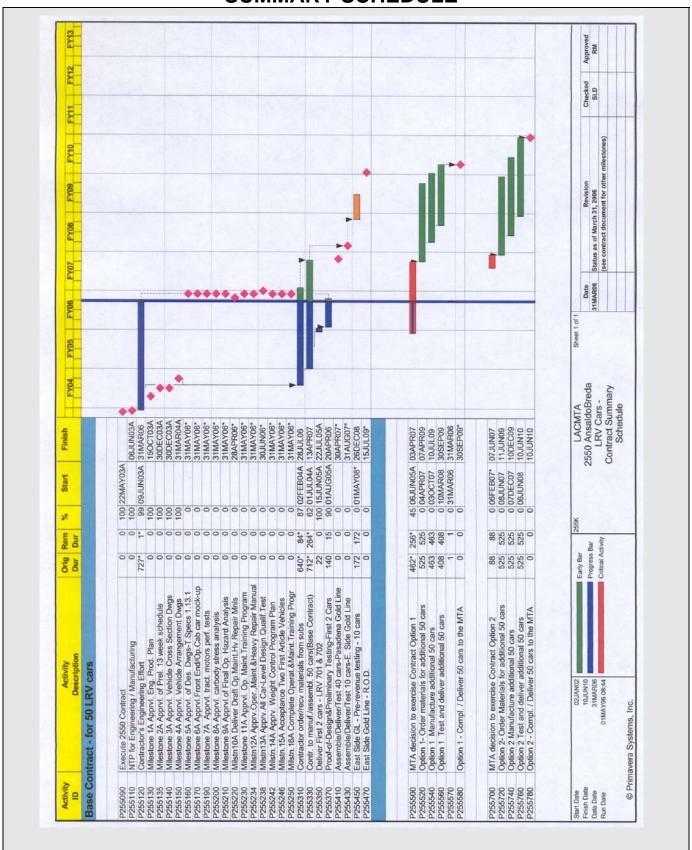
<u>Status/Action:</u> On the 2550 Contract, US&S is a wholly owned subcontractor of Ansaldobreda instead of totally separate contractor as they were on the previous LRV procurement. This provides Ansaldobreda and the IPT with a much greater level of manageability over US&S. Much has been accomplished during this quarter to mitigate our concerns, nonetheless, the concern remains and requires continued vigilance by the IPT.

KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

	Milestone						
	Date	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06
Shipment of LRV 4ea. rail-car shells and components from Italy plant to California plant.	2/28/06A		0				
10A-Deliver Draft Operator Maintenance Heavy Repair Manual	4/28/06*				0		
5A-Approval of All Drawings Per Section 1.13.1 of Tech Specs	5/31/06*					0	
6A-Approval of Front End and Operator Cab Car Mock-up	5/31/06*					0	
7A-Approval of Traction Motors Performance Tests	5/31/06*					0	
8A-Approval of Carbody Stress Analysis and Compression Test Reports	5/31/06*					0	
9A-Approval of Final Operation Hazard Analysis	5/31/06*					0	
11A-Approval of Operator Maintenance Training Program	5/31/06*					0	
12A-Approval of Operation, Maintenance Heavy Repair Manual	5/31/06*					0	
14A-Approve Weight Control Program Plan	5/31/06*					0	
15A-Acceptance of Two First Article Vehicles	5/31/06*					0	
16A-Completion of Operations and Maintenance Training Programs	5/31/06*					0	
13A Approval of all Car-Level Design Qualification Test	6/30/06*						0

LACMTA Staff Milestone Other Agencies	*	Ansaldobreda, S.p.A Deliverables New Date	FTA Metro	FTA Approval LACMTA Board Approval

SUMMARY SCHEDULE



50-CAR BUY CONTRACT DELIVERY SCHEDULE

FISCAL YEAR	CAR-SHELLS (2ea. = 1-car)	MONTHS AFTER JUNE 6, 2003 NTP	DELIVERY DATE	ACTUAL DELIVERY DATE
05	2-shells	24 MONTHS	6/05	6/15/05A
	2-shells	24 MONTHS	6/05	7/22/05A
06	2-shells	TBD	TBD	
	2-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
07	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	4-shells	TBD	TBD	
	6-shells	TBD	TBD	
	6-shells	TBD	TBD	
	6-shells	TBD	TBD	
	2-shells	TBD	TBD	
	4-shells	TBD	TBD	
	6-shells	TBD	TBD	
	6-shells	TBD	TBD	
	4-shells	TBD	TBD	
		TBD	TBD	

SCHEDULE NARRATIVE

Notice to Proceed was given June 6, 2003. The base contract engineering effort was scheduled to take approximately two years and delivery of the first two cars was scheduled for June 2005. The 50 car base contract delivery was divided between the MTA (40 cars) and the FTA (10 cars). The last (fiftieth) base contract LRV was scheduled for delivery 48-months after NTP, or approximately May 2007.

The 2550 contract contains two options, which, if exercised, would extend the contract up to another two years each. The options will only be awarded subject to adequate funding and LACMTA Board approval.

Option No. 1 for 50 LRVs may be exercised at 24 months after NTP, but no later than 34 months after the Base Order Notice to Proceed or approximately April 2006. Option No. 2 for 50 LRVs may be exercised at 42 months after NTP, but no later than 48 months after the Base Order Notice to Proceed or approximately June 2007. Extensions to these Option "windows" are in process.

The original delivery rate planned by the contractor was two LRVs per month. The schedule was re-negotiated so that after the original delivery of the first two cars in July 2005, the Contractor could use the following two months (August/September 2005) for mitigating any early production problems. The contractor then would accelerate the production rate to three LRVs per month in order to compensate for any early production delays. The revised delivery dates in the contract have liquidated damages assessments that can be imposed for late LRV car deliveries.

Status as of the end of March 2006 is as follows:

Work on completing Contract Milestone Nos. 5A (Design Drawings), 6A (Car Body Stress Analysis Mockup of Additional Front-end/Ops Cab), 7A (Complete Metro Reviewing Test Data) and 8A (Car Body Stress Analysis) is ongoing; however, until final submittal of Contract documentation is received by LACMTA, these Milestones cannot be considered complete. The Contractor continues advancing the engineering and design on the remaining Contract Milestones. Completion of these Contract Milestones is over six months behind schedule. LACMTA has requested a revised plan from the Contractor showing any mitigation efforts that can be implemented. Ansaldobreda has mobilized an onsite staff at the Metro Gold Line Maintenance Facility and they will facilitate the completion of the milestones referenced above.

The first two vehicles completed the Proof-of-Design and Preliminary Testing under the supervision of Ansaldobreda engineers. Delivery of remaining LRVs is six months behind the original Contract delivery dates. The Contractor has agreed to mitigate this delay by increasing the contractual vehicle delivery from two cars to three or four cars per month. LACMTA has received a recovery schedule from the Contractor and it is under review. At this point, there is no schedule impact to Rail Operations or other LACMTA projects.

SCHEDULE NARRATIVE

The majority of the materials and components needed for the original order have been procured. The Contractor has received sufficient material at the Pistoia plant to support the current production plan. The first sub-assemblies are now in route to the USA. Vehicle shells for one third of the vehicles are complete and undergoing final testing.

Floor modifications to the Pittsburg, California assembly plant were reconfigured during this period. Sub-assemblies have arrived from Italy and are going through receiving and inspection. Plant administrative staff is available and qualified technicians from the local area are being hired to support the production plan. Plant administrative staff have been hired and they are doing inventory and are preparing a water test facility for the Vehicle Articulation Component Test.

PROJECT COST STATUS

ELEMENT	LRV PROJECT BUDGET FOR 800151	LRV PROJECT BUDGET FOR 800088	TOTAL LRV PROJECT BUDGET	COMMENTS
Base Buy 50 LRVs	\$119,734,000	\$29,933,500	\$149,667,500	40-LRVs MTA & 10-LRVs FTA
Base Buy Spare Parts	\$5,849,886	\$1,462,471	\$7,312,357	
Base Buy Special Tools & Test Equip	\$1,407,051	\$351,763	\$1,758,814	
Subtotals	\$126,990,937	\$31,747,734	*\$158,738,671	
Contingency	\$12,699,094	\$3,174,773	\$15,873,867	
Subtotals	\$139,690,031	\$34,922,507	\$174,612,538	
Rail Consultant	\$6,870,830	\$1,717,707	\$8,588,537	Contract PS 8310-1267 for Rail Consultant staff technical services
Contingency	\$343,542	\$85,885	\$429,427	
Subtotals	\$7,214,372	\$1,803,592	\$9,017,964	
LACMTA Staff	\$6,014,602	\$1,577,798	\$7,592,400	LACMTA staff on the Integrated Project Team
TOTALS	\$152,919,004	\$38,303,898	\$191,222,902	

3/31/06

^{*} To be revised to show reduction in awarded Contractor value resulting from a sales tax exemption on rail cars (Granted by the California State Board of Equalization)

FISCAL YEAR CASH FLOW

Control	FY07	o E	90.4	FY05	FY05	Y05	FY04	FY03	È
Contract		W		\$16,065,925			FY04 \$34,565,243 FY04		
ACCHITCH Contract	Jun-06 Jul-06 Aug-06 Sep-06 Oct-06 Nov-06 Dec-06 Jan-07 Feb-07 Mar-07 May-07	Jan-06 Feb-06 Mar-06 Apr-06 May-06 Jun-06	Jul-05 Aug-05 Sep-05 Oct-05 Nov-05 Dec-05	May-05 Jun-05	Jul-04 Aug-04 Sep-04 Oct-04 Nov-04 Dec-04 Jan-05 Feb-05 Mar-05 Apr-05 May-05	Jul-04	Sep-03 Oct-03 Nov-03 Dec-03 Jan-04 Feb-04 Mar-04 Apr-04 Jun-04	Aug-03	P2550 Contract Sched Payment Date
ACCHITCH Contract	\$1,902,471 \$4,000,351 \$4,000,351 \$3,309,047 \$3,751,481 \$3,640,872 \$3,899,047 \$3,8474,860 \$3,309,047 \$2,894,265 \$2,894,265	\$464,556 \$879,339 \$1,708,905 \$1,791,862 \$1,681,253 \$1,681,253	\$9,617,433 \$6,968,352 \$13,523,174 \$436,904 \$14,097,087 \$2,206,644	\$4,147,829	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	- 1	- 0	08	Metro w CONTRACT P2550 TOTALS BY MONTH
ARCH 200 No. P AT MEET Contract Total blook Total bl	\$11,055,596	\$11,055,596		\$3,213,185	73 243 db	ardiologop	\$6,913,049	0\$	EASTSIDE FISCAL YEAR TOTALS
Contract	\$380,494 \$800,070 \$800,070 \$661,809 \$756,296 \$726,296 \$726,199 \$661,809 \$684,992 \$684,992 \$684,893 \$68	\$92,911 \$175,868 \$341,781 \$358,372 \$336,251 \$330,494	\$1,923,487 \$1,393,670 \$2,704,635 \$87,381 \$2,819,417 \$441,329	\$829,566 \$1,968,836	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	G .	4. 9.	05	EASTSIDE MLESTONE PAYMENT TOTALS
Table A Table B Contract Tab	\$44,722,385	\$44,222,385		\$12,852,740	N 2 12 8 12 7 24	Okt out, let	\$27,652,194	0\$	PASADENA FISCAL YEAR TOTALS
Table A Table B Contract Tab	\$1,521,977 \$3,200,281 \$3,200,281 \$2,647,238 \$3,000,184 \$2,647,238 \$2,647,238 \$2,773,603 \$2,773,603 \$2,773,603 \$2,773,603 \$2,773,603 \$2,773,603	\$371,645 \$703,471 \$1,367,124 \$1,433,490 \$1,345,003 \$1,521,977	\$5,574,682 \$10,818,539 \$349,523 \$11,277,670 \$1,765,315	\$3,318,263	\$5 88 88 88 88 88 88 88 88 88 88 88 88 88	4	2	808	PASADENA MILESTONE PAYMENT TOTALS
Contract	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	88888	\$1,814,234 \$0 \$0 \$0 \$0	0,0	88888888888	80	8888888888	200	Contract Table C Spare Parts elivery Milestone Payments [20% ESGL]
Contract	S	888888	\$7,256,937 \$0 \$0 \$0 \$0	88	S & & & & & & & & & & & & & & & & & & &	SO	& & & & & & & & & & & & & & & & & & &	305	9
Contract Contract Table B Contract Table B Contract Table B Contract Contract Table B Contract Table B Contract Con	\$380,494 \$800,070 \$800,070 \$861,809 \$728,174 \$728,174 \$661,809 \$694,992 \$671,884 \$612,487 \$612,487	\$92,911 \$175,868 \$341,781 \$358,372 \$380,494 \$380,494	\$149,322 \$60,835 \$87,381 \$54,198 \$164,807	\$309,705	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	80	S S S S S S S S S S S S S	300	
### Contract	\$1,521,977 \$2,200,281 \$2,200,281 \$2,647,238 \$2,046,238 \$2,046,238 \$2,647,238 \$2,647,238 \$2,778,968	\$371,645 \$703,471 \$1,367,124 \$1,433,490 \$1,345,003 \$1,521,977	\$1,051,420 \$597,287 \$243,339 \$349,523 \$216,792 \$659,227	\$1,238,818	8	\$0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	200	
MAN	N N N N N N N N N N N N N N N N N N N	888888	\$1,059,132 \$1,244,349 \$829,566 \$0 \$2,765,219 \$276,522	\$829,566	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	0\$	4 0	888	
31 Contract Contract Milliestone Milliesto	S S S S S S S S S S S S S S S S S S S	888888	\$4,977,395 \$3,318,263 \$0 \$11,060,878 \$1,106,088	\$3,318,263	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	a 100	7	OS S	Contract Table A Contract Milestone Payments [80% PGL]
Mon Atter Mon At	38 33 33 33 33 33 44 44 45 45 45 46 46 47	36 33 23 23	24 28 24 28 30 30 30 30	24	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	13	6 5 4 3 7 10 10 10 10 10 10 10 10 10 10 10 10 10	- 2 -	Mos After June 6 2003 (FY04) NTP

CHANGE CONTROL STATUS

	_	Α	A B				D=A+B+C		E	F=D+E	
				Approved			Obligated		Poten	otential	
I	Description	Award Amount	Execu	uted Changes	LNTPs (NTE) # \$		Total Approved Amount		Pending	Total Potential Value	
L			#	\$				#	\$		
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	
	TOTAL	0	0	0	0	0	0	0	0	0	

There are no Changes this reporting period.

FINANCIAL/GRANT STATUS

MARCH 2006

STATUS OF FUNDS BY SOURCE

in \$ millions

acupor.	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D) COMMITM	(D/B) IENTS	(E) EXPENDIT	(E/B) URES	(F) BILLED to FI	
SOURCE	BUDGET	FUNDS ANTICIPATED	FUNDS AVAILABLE	\$	%	\$	%	SOURC \$	%
FEDERAL - STIP	71.1	42.0	15.4	42.0	100%	15.4	37%	15.4	37%
FED-SEC 5309 FIXED GUIDEWAY	38.3	25.9	25.9	25.9	100%	24.3	94%	21.2	82%
FEDERAL - RSTP	7.7	7.7	7.7	7.7	100%	0.0	0%	0.0	0%
FEDERAL - CMAQ	14.2	14.2	14.2	14.2	100%	0.0	0%	0.0	0%
STATE STIP	6.0	35.2	29.2	30.0	85%	0.0	0%	0.0	0%
STATE STA	15.6	15.6	14.2	15.6	100%	8.0	51%	7.4	47%
PROP A 35% BONDS		12.3							
UNBILLED ACRUALS									
TOTAL	152.9	152.9	106.6	135.5	89%	47.7	31%	44.0	29%

⁽¹⁾ Based on June 2003 Regional Programming Funding Plan.

STATUS OF FUNDS ANTICIPATED

STIP FEDERAL/STATE: LACMTA submitted a request for a STIP allocation of \$26.5 million to the CTC for consideration at their July 2006 meeting.

FEDERAL SECTION 5309: LACMTA submitted a grant application for \$10.7 million to the FTA for approval. FTA approved the grant on December 8, 2004. The funds are available for drawdown.

FEDERAL RSTP: A grant application for \$7.7 million was executed on April 7, 2005. Funds are available for drawdown.

FEDERAL CMAQ: A grant application for \$14.2 million was executed on August 25, 2005. Funds are available for drawdown.

Note: Expenditures are cumulative through February 2006.

The 2550 Rail Vehicle Program consists of 40 light rail vehicles and associated costs.

RAIL CAR TESTING



Night Testing of the 2550 LRV on the Metro Blue Line.

APPENDIX COST AND BUDGET TERMINOLOGY

COMMITMENTS: The total of actual contract awards, executed change orders or amendments, approved work orders of Master Cooperative Agreements, offers accepted for purchase of real estate, and other LACMTA actions that will result in specific expenditures at a future time.

INCURRED COST: The total value of work performed to date of services received, and acquired materials or properties.

EXPENDITURES: The total dollar amount of checks written by LACMTA's Accounting department for contractor or consultant invoices, third party invoices, staff salaries, and closing payments for escrow accounts that is reported in LACMTA's Financial Information System (FIS).

CONSTRUCTION: Includes guideways, yards and shops, systems equipment, stations, and vehicles.

PROFESSIONAL SERVICES: Includes general engineering, construction management services, consultant design support services during construction, legal counsel, and agency (LACMTA staff) costs.

CONTINGENCY: A fund established at the beginning of a project to provide for anticipated but unknown additional costs that may arise during the course of the project.

SPECIAL CONDITIONS: Includes utilities relocation, environmental compliance and mitigation, master cooperative agreements, insurance program, artwork, systems integration testing and pre-revenue operations.

APPENDIX LIST OF ACRONYMS

CMAQ Congestion Mitigation Air Quality

CN Change Notice CO Change Order

CTC California Transportation Commission

FTA Federal Transit Administration

FY Fiscal Year

LACMTA Los Angeles County Metropolitan Transportation Authority

LNTP Limited Notice To Proceed

LRV Light Rail Vehicle

MGLEE Metro Gold Line Eastside Extension

N/A Not Applicable
NTE Not to Exceed
NTP Notice To Proceed
PGL Pasadena Gold Line

QPSR Quarterly Project Status Report SSPP System Safety Program Plan

STIP State Transportation Improvement Program

TBD To Be Determined