



**Southeastern Pennsylvania Transportation Authority
Operations Division**

1234 Market Street, 10th Floor, Philadelphia, PA 19107-3780

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MEMORANDUM

TO: Distribution

FROM: L. Diggs 

DATE: February 2, 2012

SUBJECT: Silverliner V Fleet Procurement Progress Report
January 2012

Attached is the Progress Report for the acquisition of the Silverliner V Rail Car Fleet, which summarizes overall project activity through January 2012. Please contact me if you have any questions or comments.

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System Safety

J. Fox

Rail Locations

Frazer Shop

A. Matejik

Overbrook Shop

G. Fisher

Powelton Ave. Yard

G. Fisher

Roberts Ave. Shop

A. Matejik

Wayne Junction Shop

P. Norcini

Other Locations

FTA:

R. Kanzler

Hill International (FTA

PMO)

A. Keltos

PENNDOT:

E. Bonini

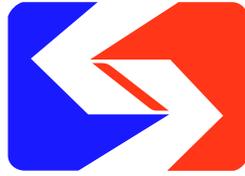
STV Inc.:

C. Holliday

T. Janssen

Delaware Transit Corp.

L. A Loyola



Silverliner V Rail Car Procurement



Progress Report

January 2012

Southeastern Pennsylvania Transportation Authority

Silverliner V Rail Car Procurement Project

Progress Report

January 2012

Executive Summary

Activities in January continued to focus on production activities as well as the close-out of open items.

During the month of January, six additional cars entered revenue service operation, while the newly delivered vehicles continued on-site testing and commissioning activities. By the end of the month, 60 cars were accepted for revenue service.

There are currently 49 carshells at the final assembly facility in Philadelphia. All carshells previously stored at the port have been moved to the Weccacoe plant. During January, eight production cars were shipped to SEPTA, where they are completing final testing.

Production car throughput at the Philadelphia final assembly facility seems to have stabilized at about six to seven cars per month, although the efficiency could be further increased.

All vehicle upgrades related to last year's climate chamber test result have been completed at this point.

In January UTS started the second modification program, which will bring all delivered vehicles to the latest approved configurations. The work will be performed at SEPTA's Frazer facility and will last several months.

The installation of the video surveillance and passenger counting systems under a separate third party contract continued with 14 cars having the video surveillance system completed and 54 cars having the automatic passenger counter installed.

Contract Scope

This project provides for an acquisition of 120 new regional rail cars for the SEPTA Regional Rail System. Four of these are being purchased by the Delaware Transit Corporation (DTC) so that SEPTA can meet future ridership growth on the Wilmington Line.

In Summary.....

Production of railcars is moving at a steady pace while open item resolution needs improvement.

Operation 60 cars have been accepted for revenue service.

Schedule 71 cars have been shipped to SEPTA to date. The last car is scheduled to be accepted in September 2012.

Costs Payments to UTS total \$141.4M.

Production 49 carshells are currently at the Weccacoe plant in Philadelphia.

These new electric multiple-unit (EMU) commuter cars will replace the existing Silverliner II and III rail cars as well as provide additional cars to supplement the fleet in response to current and projected ridership increases. In addition to the rail cars, the program also includes: spare parts; publications and training; special tooling; and coupler heads (to enable coupling to Silverliner IV).

The rail car supplier is United Transit Systems (UTS), a consortium of Hyundai-Rotem, South Korea, and Sojitz Corporation of America.

Suppliers of Major Equipment	
Hyundai-Rotem	Carbody
Columbus Steel (CSC)	Truck Frame
UTC	Truck Assembly
Mitsubishi Electric (MELCO)	Propulsion, High Voltage
Transtechnik	Auxiliary Power
Westcode	HVAC
Faiveley	Doors
Wabtec	Brakes, Couplers
Woojin, KTCC	Communications
Quester Tangent	Central Diagnostic
Kustom Seating	Seats

Changes and Change Orders

Change Order No. 1, the exercise of 16 option cars, was executed in June 2007. Change Order No. 2, a four month project time extension, including a six month delivery extension for the pilot cars due to excusable delays, was executed in November 2008. Further included is the use of drawbars between married pair cars, rather than mechanical couplers, and the change of the flooring material to an Altro product. Also part of this change order is a revision of the spare parts list, which has been adjusted based on the actual vehicle design, and a correction of payment milestones.



Test equipment for high-speed and cant-deficiency testing

Progress Payments

During January, SEPTA issued payments of \$5.2M for the acceptance of four production cars, resulting in a total vehicle payment amount of \$141,410,860.

Budget Status

BUDGET	BASE-LINE	CURRENT	EXPENDED
	(06/2006)	(EAC)	TO DATE
	(\$x1,000)	(\$x1,000)	(\$x1,000)
Professional Services	8,665	11,126	9,832
Cars/Spares	244,237	274,084	141,411
Surveill. System	0	3,533	0
Autom. Pass. Count. system	0	2,098	717
Project Management	7,890	11,262	5,980
Travel	785	950	907
F/A Labor/Engineering Support	1,463	1,971	1,078
F/A Labor/F/A Material	1,500	1,483	376
Tools & Equipment	500	1,000	192
Training	1,750	513	145
Indirect Support	17,328	18,283	8,708
Contingency	15,882	696	0
TOTAL PROJECT	300,000	327,000	169,348
Expended as of 1/14/12 :			\$169,347,760

Note: the CURRENT figures include the 16 option cars.

Project Schedule

In July 2008, the SEPTA Board granted UTS a project extension of four months due to delays that were out of UTS' control. In addition, a six-month extension for delivery of the pilot cars was granted.

In March 2009, UTS stated that there are additional project delays. Although UTS had been working under a mitigation plan that attempted to reduce the pilot car delivery delay to six months, UTS was unable to meet this targeted mitigation schedule. The pilot cars arrived at SEPTA in March of 2010, and the first three production cars were delivered on December 30, 2010.

Although improvements from earlier production rates are evident, the slow incorporation of streamlined processes added to these delays. At this point we see a steady delivery rate of six to seven cars per month and anticipate that UTS will be able to meet the current schedule as shown below.

ACTIVITY	CONTRACT SCHEDULE	CURRENT STATUS ¹
Notice to Proceed	June 2006	June 2006 (A)
Approval of Major Equipment Suppliers	October 2006	December 2006 (A)
Completion of Carbody Load Test (Pilot Vehicle)	March 2008	December 2008 (A)
Completion of First Article Inspections	May 2008	May 2011 (A)
Pilot Vehicle Delivery	June 2009	March 2010 (A)
First Production Vehicle Cond. Acceptance	January 2010	February 2011 (A)
Last Production Vehicle (car 104) Cond. Acceptance	October 2010	July 2012 (F)
Last Option Vehicle (car 120) Cond. Acceptance	N/A	September 2012 (F)

(A) = Actual, (F) = UTS Forecast

1) Contract Schedule includes a four months delivery extension.



Instrumented Wheelset test train at Harrisburg, PA

Quality Assurance

A material review meeting was not conducted during the month of January as anticipated. SEPTA is awaiting UTS' response for new procedures for kitting, work instructions and the non-conforming material control

process. UTS has advised that they will assign a new representative to assume responsibility for the material control process.

A monthly Surveillance Discrepancy Report (SDR) meeting was conducted in early January. For production activities in the US, a total of forty-one SDRs remain open and a total of forty closed. Additionally, seven SDRs remain open for activities in Korea, with a total of forty-four closed.

Production Cars

With the shipment of eight cars to SEPTA's Wayne Junction facility in January, a total of forty-nine cars remain in production at the Weccacoe plant. The seven cars that were previously in storage at the Packer Marine terminal have all been moved to the plant. As of the end of January, UTS had delivered a total of seventy-one cars to SEPTA.

The throughput of cars at functional testing improved from seven to eight units in January. Resident inspectors report continuous improvement efforts by UTS production personnel who are ensuring that completed cars are delivered to the production test area. Inspectors anticipate up to eight cars will be functionally tested during February.

Issues and Concerns

Communication System: Woojin continues to work on the remaining communication system problems. While improvements are evident, especially regarding those functions that are noticeable by the public, the closure of several remaining items is pending. The progress will continue to be closely monitored.

In addition to carborne communication equipment, problems with wayside equipment continue. As such, wireless communication between the vehicles and Powelton and Frazer Yards requires improvements. In addition, the Data Management Console (DMC) does not function properly yet and requires further development.

Final Assembly: Production activities appear to have stabilized, although additional improvements are possible. At this point we do not expect any significant changes to the current processes. However, SEPTA continues to monitor this situation as the arrival of Boston bi-level coaches could have an impact on the SLV production activities. These new carshells are expected to arrive within the next few months.

Frazer 2 Modifications: In January UTS started the second modification program, which will bring all delivered vehicles to the latest approved configurations. For the vehicles delivered early last year, this will mean the implementation of over 100 design updates and improvements. Vehicles delivered later had many changes already implemented before shipment and will require less effort to bring to the latest configuration. The work will be performed at SEPTA's Frazer facility and will last several months.

One Month Look-Ahead

The following confirmed activities are scheduled for the coming month:

Technical Meetings/Discussions:

- Weekly Engineering Meetings
- Weekly Production Meetings
- Weekly Test/Commissioning Meetings

Project Management:

- Monthly Progress Meeting – February 2
- Weekly Project Meetings

Production Car Manufacturing:

- UTS is planning to ship up to seven cars in February.
- Continue rework on car 702 to bring vehicle up to current configuration level.
- Begin second phase of vehicle modification activities at Frazer facility.