MEMORANDUM

Southeastern Pennsylvania Transportation Authority
Operations Division
1234 Market Street, 10th Floor, Philadelphia, PA 19107-3780

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TO: Distribution

FROM: L. Diggs

DATE: May 9, 2011

SUBJECT: Silverliner V Fleet Procurement Progress Report April 2011

Attached is the Progress Report for the acquisition of the Silverliner V Rail Car Fleet, which summarizes overall project activity through April 2011. Please contact me if you have any questions or comments.

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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

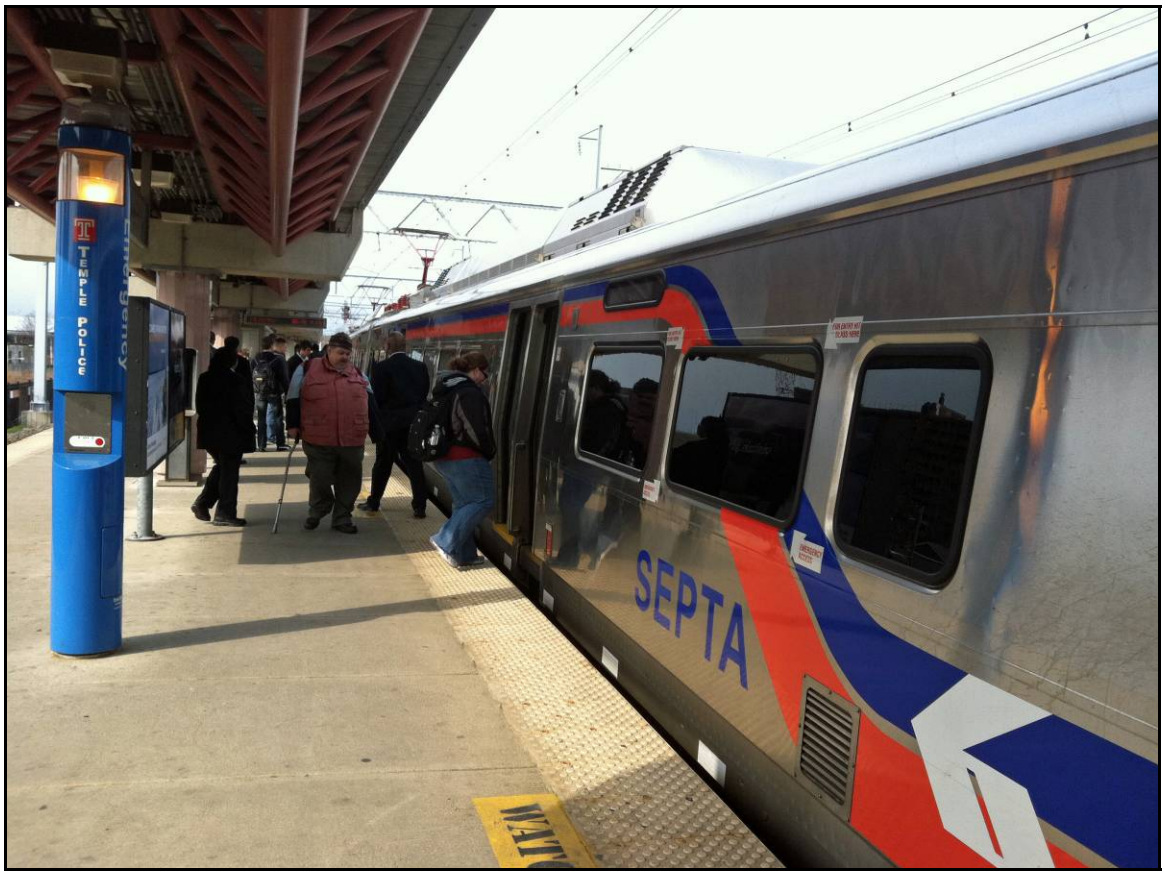
PENNDOT:
E. Bonini

STV Inc.:
C. Holliday
T. Janssen

Delaware Transit Corp.
L. A Loyola

Attachment

Silverliner V Rail Car Procurement



Progress Report

April 2011

Southeastern Pennsylvania Transportation Authority

Silverliner V Rail Car Procurement Project

Progress Report

April 2011

Executive Summary

Activities in April focused on vehicle production activities as well as remaining communication testing.

During the month of April, additional cars entered revenue service operation. Some of the newly delivered production cars were used for employee training, while others completed their on-site testing and commissioning activities. By the end of April, eleven production cars were operating in revenue service.

Since January, all carshells are in Philadelphia, with 62 carshells at the final assembly facility, and 38 shells stored at the Philadelphia port due to lack of storage space at the Weccacoe plant. During April, five production cars were completed for delivery to SEPTA, where they will undergo final testing.

Progress at the Philadelphia final assembly facility remains slow, although improvements are noticeable. UTS is continuing to improve production processes to increase throughput levels and quality.

In late April, remaining portions of the communication system type test were performed with great improvements. The last type test required for the communication system is for the wayside equipment, which will be performed in mid-May.

In late February, the car started climate chamber testing at the NRC in Ottawa, Canada to confirm all implemented changes under controlled conditions. The results demonstrated great improvements over the failed tests of last year. While no additional vehicle modifications are expected at this time, a few open issues require further evaluation and adjustments.

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.....

All but one First Article Inspections (FAI) and Type Tests have been completed, while more and more cars enter revenue service.

Operation	11 cars are operating in revenue service.
Schedule	16 cars have been delivered to SEPTA to date with five cars undergoing testing. The last car is scheduled to be accepted in June 2012.
Costs	Payments to UTS total $74.8M.
Production	62 carshells are currently at the Weccacoe plant in Philadelphia, with 38 additional carshells stored off-site. Three cars are in-route for delivery to SEPTA.

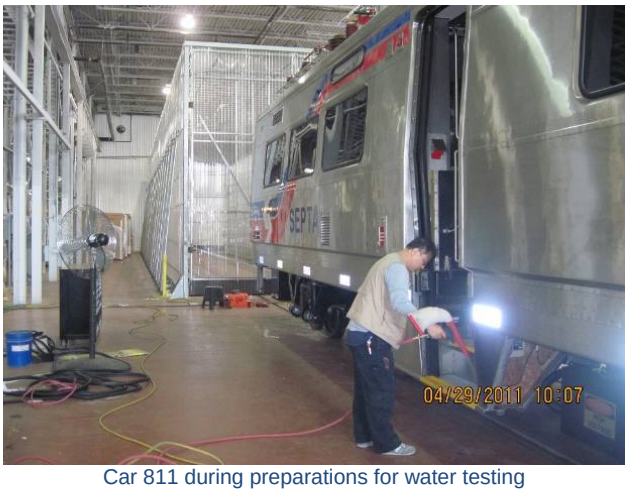
These new electric multiple-unit (EMU) commuter cars will replace the existing Silverliner II and III rail cars as well as provide additional cars to supplement the fleet in response to current and projected ridership increases.

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.



Car 811 during preparations for water testing

Progress Payments

On May 16, 2007, the first milestone payment was made to UTS. A payment for the option cars followed on July 3, 2007. Since November 2008, payments for the completion of major system FAIs, the carbody load test, and the pilot car delivery and conclusion of the Buy America Post Delivery audit have been made.

On January 6, 2011, SEPTA paid $6,568,350 for the invoices for 50% of the milestones for the delivery of the pilot cars and for the partial completion of the communication system FAI. Although both milestones have not been fully completed, significant progress has been made, which warranted the 50% payments. During March, after closing the remaining open items, SEPTA paid the remaining 50% for the delivery of the pilot cars. Combined, all payments add up to $74,806,058.

Budget Status

BUDGET	BASE-LINE	CURRENT	EXPENDED
	(06/2006)	(EAC)	TO DATE
	($x1,000)	($x1,000)	($x1,000)
Professional Services	8,665	11,126	8,580
Cars/Spares	244,237	274,084	74,806
Surveill. System	0	3,533	0
Autom. Pass. Count. system	0	2,098	40
Project Management	7,890	11,262	5,035
Travel	785	950	895
F/A Labor/Engineering Support	1,463	1,971	736
F/A Labor/F/A Material	1,500	1,483	241
Tools & Equipment	500	1,000	24
Training	1,750	513	108
Indirect Support	17,328	18,283	4,58
Contingency	15,882	696	0
TOTAL PROJECT	300,000	327,000	95,035
Expended as of 4/23/11 :			**$95,035,502**

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 has 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 are evident, staffing and material issues continue to be reasons for a slower than expected progress of the production cars. The slow incorporation of improved production processes adds further to these production delays.

UTS recently submitted a revised project schedule that shows a final car acceptance in June 2012.

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 (FAI's)	May 2008	May 2011 (F)[2]
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	May 2012 (F)
Last Option Vehicle (car 120) Cond. Acceptance	N/A	June 2012 (F)

(A) = Actual, (F) = UTS Forecast
1) Contract Schedule includes a four months delivery extension. Forecast based on current UTS schedule.
2) Except for the wayside communication system all FAIs have been completed.

Project Progress Summary

Below table summarizes the estimated progress of key project activities:

Subsystem FAI completion:	99%
Completion of pilot car testing:	99%
Carshells at the Weccacoe facility:	62 (+38)
Number of vehicles delivered:	16

Quality Assurance

The next material review meeting is scheduled for May 5th at the Weccacoe plant. The previous meeting was conducted on March 1st. Throughout April, resident inspectors reported only modest improvements being made in specific areas of the production floor. Additionally, inconsistencies relative to the full implementation of a "Traveler" system for the production cars have been reported. This will be reviewed at the upcoming material review meeting.

During a joint review of car shells being stored at the Packer Marine Terminal, it was observed that the protective covers on at least eight car shells were damaged. As a result, the interiors of these car shells have been affected by the weather and are showing signs of water ingress behind insulation and V-damp coverings, as well as water damage to protective floor coverings. The extent of the damaged is unknown at this time. SEPTA inspectors will meet jointly with UTS inspectors to determine a course of action for inspecting the currently identified cars.

SEPTA and UTS are continuing the weekly review and dispositioning of Surveillance Discrepancy Reports (SDR). During the month of April, three meetings were conducted with positive progress being reported.

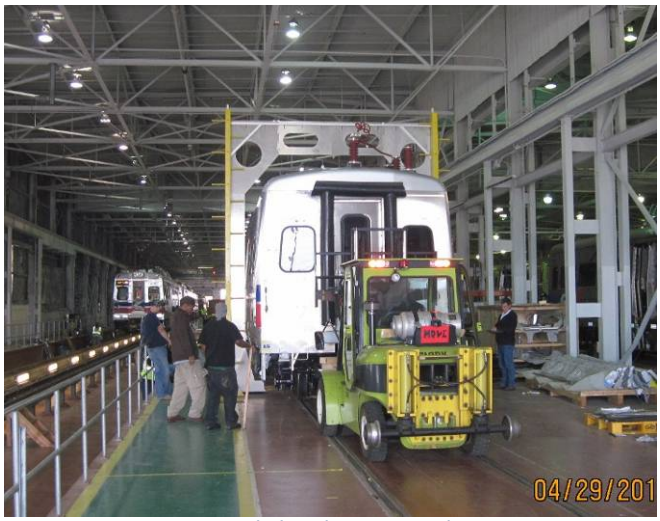
Production Cars

A total of five cars were shipped to Wayne Junction during April. A total of 62 car shells were at the Weccacoe production facility, with an additional thirty-eight units in storage at the Packer Marine Terminal. A total of five production cars were functionally tested during the month of April. Production cars 813 and 814 were entering the functional test cycle during the last week of April.

Though some improvements in the throughput of cars during static testing are being observed, UTS continues to struggle with the final water testing of the cars in preparation for shipment. SEPTA inspectors have been working closely with UTS test personnel in an effort to reduce the cycle time from four days down to two days.

It should be noted that UTS is not installing passenger seats before the cars enter the static test area. This has improved the test crew's ability to move test equipment more easily within the passenger compartment and minimized the potential damage to seats, The seats will now be installed upon successful completion of static testing.

The UTS production team has been focusing on brining all cars up to the latest insulation levels based on the outcome of testing performed in Ottawa, Canada. Several work teams have been reworking insulation under and around passenger windows and at the floor/side sill interface. This work continues to progress with no issues being reported.



Car 811 during clearance testing

Issues and Concerns

Communication System: After a slow progress of closing open communication type test issues in the past, a final six-car type test was conducted in late April. Except for a few minor items, this test was deemed conditionally acceptable. UTS and its suppliers will close these minor items within the following weeks.

The final wayside communication type test will be conducted in mid-May.

Final Assembly: Assembly activities at the Weccacoe plant are not yet proceeding as smoothly as originally hoped. While some initial problems have been expected for this new facility with newly hired staff, production, and especially quality, processes need improvement. A combination of material delays and labor qualifications appear to be the main reasons for the slow progress at that facility. UTS continues to advance the production processes. While improvements have been noticed, we continue to monitor this situation closely.

Climate Room Testing: The climate room testing at the National Research Council in Ottawa, Canada, last summer revealed the requirement for modifications of the heating system as well as improved carshell insulation. Various design changes have been implemented into the test car in early January and subsequently tested at Weccacoe.

In late February, the car started climate chamber testing at the NRC in Ottawa, Canada again to confirm all implemented changes under controlled conditions. Although great improvements have been made since the failed tests of last year, some open issues still remain that require further evaluation. While no major vehicle modifications are expected at this time, additional adjustments are likely.

Once the system has been approved, all modifications will have to be implemented into the production vehicles. While for several already delivered vehicles this will require some rework, for most vehicles these changes will be part of the normal outfitting process and therefore should have little to no impact on the vehicle delivery schedule.

One Month Look-Ahead

The following confirmed activities are scheduled for the coming month:

Technical Meetings/Discussions:

- Weekly Engineering Meetings
- Weekly Production Meetings

Project Management:

- Monthly Progress Meeting – May 4
- Weekly Project Meetings

Production Car Manufacturing:

- UTS is planning to ship up to seven cars in May.
- A follow-up material review audit is scheduled for May 5.
- Installation of the new overhead catenary line in the static test area had not started as of the end of April. At this time, UTS has not advised of a new start date for this activity, but it is likely to start during May.