



Planning and Development Committee

Board Action Item III-A

February 15, 2007

**General Order
and
Track Right Authorization System
(GOTRS)**

**Washington Metropolitan Area Transportation Authority
Board Action/Information Summary**

Action
 Information

MEAD Number:
99736

Resolution:
 Yes No

PURPOSE

To authorize a modification to the existing ROCS Upgrade Contract with ARINC to enhance the Track Access Management functionality that is part of the new Rail Operation Computer System (ROCS). This will be accomplished by completing a detail design specification, software development, and implementation of this enhanced General Orders and Track Rights Authorization System (GOTRS).

DESCRIPTION

The current GOTRS process consists of mainframe computer components and a multitude of manual processes. In the last five years, requests to access the rail system right of way have increased by 300%. Right-of-way access is required to perform necessary work needed to either improve or sustain customer service related efforts such as the Metro Matters Program and Routine Maintenance activities.

Based on the feasibility analysis completed in November 2006, the current GOTRS system and processes are no longer able to schedule and manage WMATA's track rights. Due to the limitation of the current GOTRS system, the multitude of manual processes that are being managed should be incorporated into a new system to improve the efficiency of the process. The feasibility analysis identified that the design for an enhanced system should incorporate automated processes with override capability available to authorized personnel at all times, providing real time feed back to the requestor, conflict resolution, a graphic interface for entry and review of the rail lines, and interfaces to existing systems that provide project and maintenance scheduling information.

This effort will be accomplished by modifying Contract with ARINC. ARINC is currently upgrading WMATA ROCS. The modification will focus on implementing the key aspects of the system functionality identified in the analysis in order to

offer the most immediate benefit. These functions include, graphic user interface for manual requests and visual feedback, GOTRS business rules, automated notification of conflicts and changes to request, automate the Red Tag request process and automatically producing switching orders, provide breaker status and supervisory outages to Rail Central Control as well as management of piggyback requests.

FUNDING IMPACT

The FY07 Budget contains \$600,000 to perform the design, programmatic approval was granted on December 21, 2006 (Mead 99696) to modify a contract for this work. The development and implementation of this program is contained in the OIT Strategic and Business Plan in FY08 in the amount of \$2,650,000.

RECOMMENDATION

To authorize a modification to the existing ROCS Upgrade contract to enhance the Track Access Management functionality that is part of the new Rail Operation Computer System (ROCS). This will be accomplished by completing a detailed design specification, software development, and implementation of this enhanced General Orders and Track Rights Authorization System (GOTRS).

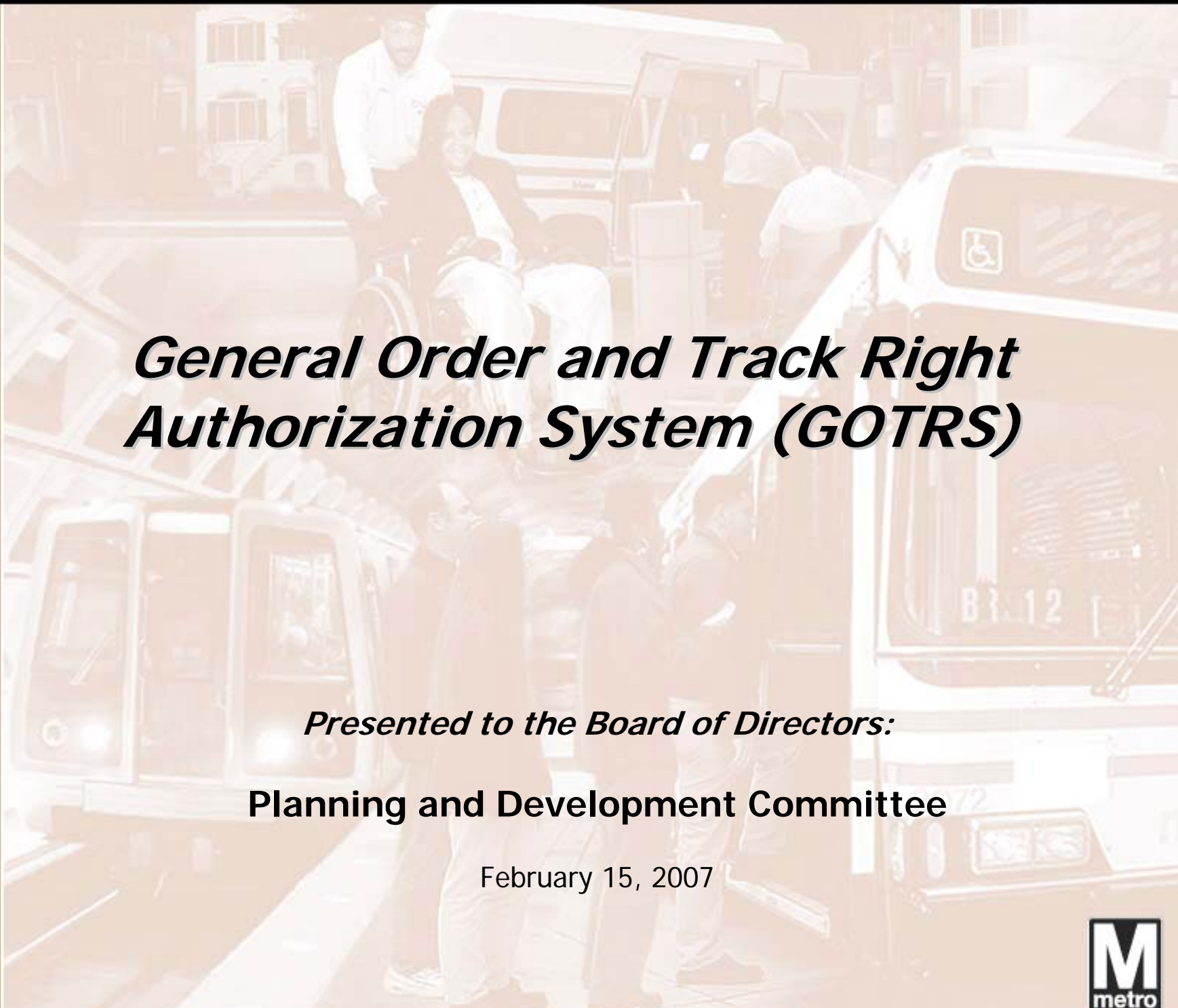


General Order and Track Right Authorization System (GOTRS)

Presented to the Board of Directors:

Planning and Development Committee

February 15, 2007





Purpose

Enhance the Track Rights Management functionality of the new Rail Operation Control System (ROCS) to replace the current General Order and Track Right Authorization System (GOTRS) by modifying the existing ROCS Upgrade contract.



Discussion



Current GOTRS process is a hybrid of mainframe computer and manual processes to manage requests for access to the WMATA right of way.



Discussion

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
GENERAL ORDERS AND TRACK RIGHTS SYSTEM
APPROVED REQUESTS

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RCCB99B
AS OF: 12/14/2006

RCCB99B
LINE: C DATE: 12/18/2006 DAY: MONDAY
WORK HOUR DEPT/ORG TRACK # LOCATION/EQUIPMENT REQUIRED ESCORT PWR SUPT ROD

WORK HOUR	DEPT/ORG	TRACK #	LOCATION/EQUIPMENT REQUIRED	ESCORT	PWR	SUPT	ROD
00:30 04:30	SMNT PWR	1 & 2	METRO CENTER C002+00 MC PHERSON SQ	C021+00	PWR	S	
00:30 04:30	SMNT PWR	1 & 2	MC PHERSON SQ C026+00 FARRAGUT WEST	C041+00	PWR	S	
00:02 04:30	TSSM TRAC	2	ROSSLYN PRIME MOVER FLAT-CAR/PETTIE-BONE C138+00 COURT HOUSE	K194+99	TRAC	S	
00:30 04:30	TSSM STRC	1	ROSSLYN 10200 OH RAIL CART WITH POWER TOOLS C138+75 COURT HOUSE	K195+17	STRC	S	
00:30 04:30	TSSM STRC	1	ROSSLYN SAFETY EQUIPMENT C154+28 ARLINGTON CEMETERY	C170+00	STRC	S	
00:30 04:30	TSSM TRAC	1 & 2	ARLINGTON CEMETERY PRIME MOVER/ CRANES C217+00 ARLINGTON CEMETERY	C175+00	TRAC	S	ATC
00:30 04:30	TSSM TRAC	1	PENTAGON PRIME MOVER WITH WORK FLAT C261+33 PENTAGON CITY	C289+00	TRAC	S	
00:30 04:30	TSSM TRAC	2	PENTAGON PRIME MOVER/ RAIL TRAIN C275+00 CRYSTAL CITY	C335+00	TRAC	S	ATC
00:30 04:30	SMNT PWR	1	PENTAGON CITY C296+00 CRYSTAL CITY	C332+00	PWR	S	
00:30 04:30	SMNT I3S	1 & 2	CRYSTAL CITY FIBER OPTIC CABLE AND PULLING EQUIPMENT C338-16 NATIONAL AIRPORT	C371+28	COMM	R	PWR
00:30 04:30	SMNT I3S	1 & 2	NATIONAL AIRPORT FIBER OPTIC CABLE AND PULLING EQUIPMENT C371+70 BRADDOCK ROAD	C493+86	COMM	R	PWR
00:30 04:30	SMNT I3S	1 & 2	BRADDOCK ROAD FIBER OPTIC CABLE AND PULLING EQUIPMENT C494+42 KING STREET	C571+53	COMM	R	PWR
00:30 04:30	SMNT PWR	1 & 2	KING STREET C572+00 EISENHOWER AVE.	C592+00	PWR	S	
00:30 04:30	TSSM TRAC	1	EISENHOWER AVE. PRIME MOVER WITH WORK FLAT C593+70 HUNTINGTON STATION	C634+00	TRAC	S	
00:30 04:30	SMNT CENG	2	HUNTINGTON STATION C613+00 HUNTINGTON STATION	C629+00	COMM	S	

TRACK RIGHTS REQUEST

FAX 6090

REQUEST# : _____
APPROVED : _____
DISAPPROVED: _____
CANCELED : _____

DEPARTMENT REQUESTING RIGHTS: TRST - C99 Yard

REQUESTER'S NAME: Leroy Jones (639) OFFICE PHONE: 202-962-5036

DAY OF WEEK: Thursday DATE: 20 MONTH: July, 2006

HOURS FROM: 00:30 TO 04:30

CIRCLE LINE REQUIRED: A B C D E F G H J K (L)

TRACK NUMBER(S): 1 STATION: F-03 to C-07

CHAINING FROM: L-052+50 TO L-157+00

RED TAG OUTAGE: CIRCLE: YES OR (NO)

SUPERVISORY OUTAGE: CIRCLE: (YES) OR NO

EQUIPMENT ON TRACKS: CIRCLE (YES) OR NO

IF YES DESCRIBE: PM-37

WORK DESCRIPTION: Fastener Maintenance

REMARKS: I spoke to W. Fuller and he said that Structures are not taking the rights in this area. His contact number is x5116. The Supervisor will K. Wade 638.

Increased maintenance and replacement on the aging infrastructure has resulted in over 900 weekly requests by contractors and internal WMATA forces to perform work.

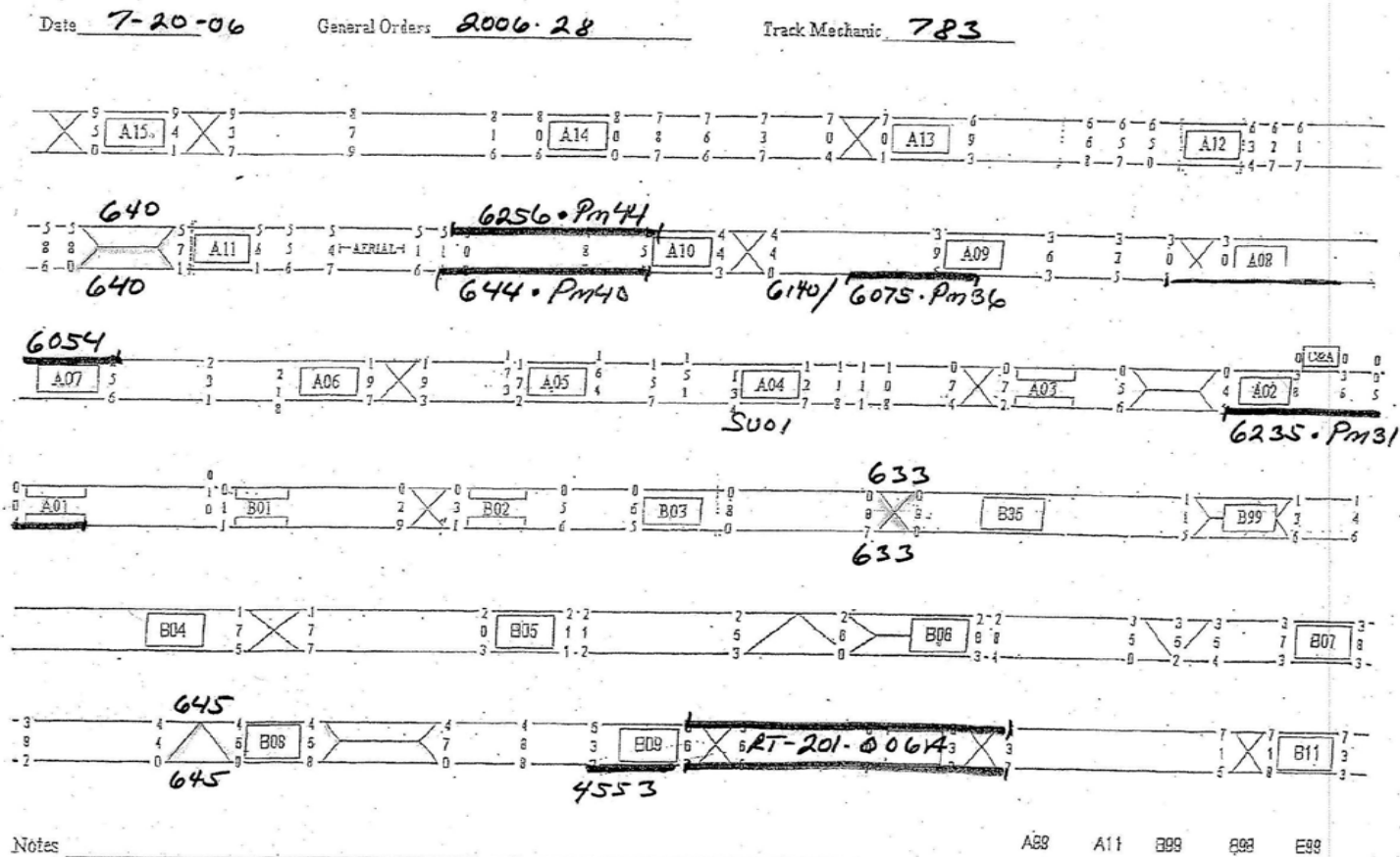
Discussion



Due to the high volume of requests under the current manual processes, resolving work conflicts, managing manpower and determining work prioritization is inefficient.

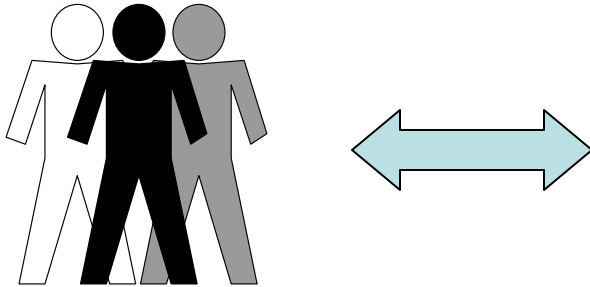


Discussion



Rail Operations has to hand draw approved work requests to visually determine work locations by line.

Discussion



- Automated notification
 - Conflicts
 - Changes to request
- Automated identification of work locations
- Automatic statuses to Central Control computer system
- Real-time reporting
- Visual feedback

By modifying the existing ROCS Upgrade contract to complete a detailed design specification task and by making enhancements to the GOTRS functionality in the new ROCS system, WMATA will improve efficiency of the GOTRS system.

Benefits

- More efficient track access management which will allow required track work to be completed for maintenance and project work.
- Reduction in the number of claims related to track access conflicts.
- Productivity improvement in Rail Operations by reducing the manual processes required to manage the GOTRS process.
- Ability to produce reporting metrics to monitor and optimize the GOTRS process.
- Requestors receive instant feedback regarding conflicts, changes, and/or acceptance of request.





Funding Impact

- Budgeted in the overall OIT Program
 - Funding Request:
 - Detailed Design Specification Task \$ 600,000
FY07 (Approved by Board 12-21-06)
 - Development & Implementation \$ 2,650,000
FY08
- \$ 3,250,000



Recommendation

Approval to execute and fund a modification to the ROCS Upgrade Project contract to complete a detailed design specification task and software development for the new ROCS system to enhance the Track Rights Management functionality.