

MARC: Maryland's Commuter Railroad – Scheduling 101

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**2012 MULTIMODAL OPERATIONS
PLANNING WORKSHOP**



MARC Quick Facts

- 94 Trains operated each weekday (no weekend service). 57 trains on the Penn Line, 19 trains on the Brunswick Line and 18 trains on the Camden Line serving 40 stations.
- Amtrak operates the Penn Line, while CSX operates the Brunswick and Camden Lines
- Ridership currently at a record high of 35,200 riders a day. (Penn Line – 22,700, Brunswick Line – 7,700, Camden Line – 4,800)
- MARC uses 32 diesel locomotives , 10 electric locomotives and 135 passenger cars

MARC's Financial Contribution

- MARC pays Amtrak and CSX all direct costs and overheads for operation of the trains – approximately \$61.4 million annually
- In addition we pay Amtrak and CSX approximately \$24.4 million a year for “access” to the railroad and Union Station
- Included in this amount is \$1.6 million annually for Amtrak police support.

Capital Contributions

- MTA gives Amtrak and CSX each \$7 million annually for capital projects. MARC. Projects include:
 - Rebuilding Bowie interlocking
 - Triple track in Jessup area of Camden Line
 - Catenary and Substation upgrades
 - New Platforms at NCR and BWI
 - New elevators and emergency power at BWI
 - New HVAC and Windows at Penn Station
 - New interlockings along the Brunswick Line

The MARC Rider



- 52% Male
- Average Age 45 years
- Average Household Income \$105,000
- Over 90% have some college education
- 55% work for the federal government, alot on Capitol Hill
- 41% have used MARC for 5 years or more

The MARC Rider II

- If MARC didn't exist more than half would drive
- MARC service is a major consideration in buying a house for 30% of the riders
- They ride MARC to avoid traffic, save money on gasoline and other car related expenses, convenience and help the environment

Riders' Perception of MARC

- Riders want service which is safe, on time with adequate seating
- On time performance impacts passenger views above all other attributes
- Good communication about the service is also important along with cleanliness of the trains

On-Time Performance

- 90-91% is acceptable, 93-96% is good
- Currently in 2012 Penn Line at 95%, Brunswick Line at 91% and Camden Line at 97%

OTP	2003	2004	2005	2006	2007	2008	2009	2010	2011
PENN	91%	87%	88%	90%	88%	85%	86%	89%	93%
BRUNSWICK	86%	86%	89%	89%	87%	84%	91%	83%	84%
CAMDEN	90%	88%	90%	94%	90%	89%	91%	89%	90%
SYSTEM TOTAL	90%	87%	89%	90%	89%	86%	88%	88%	90%

MARC Scheduling

- Scheduling and dispatching of all trains is controlled by Amtrak and CSX
- Must work cooperatively with the railroads in developing MARC schedules
- With CSX agree to specific time windows when passenger trains can operate – also agree to minimize any interference with key freight trains (i.e. juice train)
- With Amtrak agree to minimize any interference with their key passenger trains (i.e. the Acela service)

MARC Scheduling - continued

- In the last 16 months MARC has worked cooperatively with the railroads to revamp the schedules on all three lines.
- With Amtrak the focus was to operate more frequent service with smaller trains. Partly driven by major service disruptions during summer 2010.
- With CSX the focus was to develop a schedule that would ensure on-time performance with a 95% accuracy
- As reference a train is deemed on time if it reaches its destination station within 5 minutes and 59 seconds of the scheduled time.

MARC Scheduling - continued

- Additional challenges to building schedules include:
 - Heat Orders
 - Flash flood restrictions
 - Summer storms
 - Work Orders
 - Federal Govt. early release
 - Leaf season
 - Coordination with other modes