

NEXUS BETWEEN ENFORCEMENT APPROACHES AND TECHNOLOGIES ON OCCUPANCY AND ELIGIBILITY

TRB International Managed Lanes Conference, Session 6 Logistics

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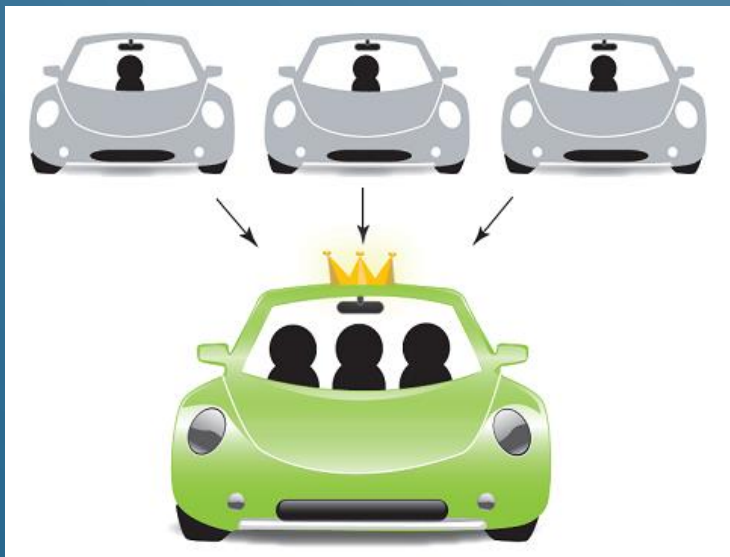
The logo for the Transportation Research Board (TRB), featuring the letters "TRB" in a bold, stylized font within a rectangular border.

AGENDA

- Reasons to enforce occupancy
- Occupancy declaration approaches
- New enforcement technologies
- Moving forward



WHY ENFORCE OCCUPANCY REQUIREMENTS?



DEDICATED LANES

PROS

- Straight forward visual enforcement
- Good public perception of fairness



CONS

- Induce lane changes
- High infrastructure costs/ROW
- Depending on configuration, may need multiple people to enforce

NO TAGS FOR CARPOOLS

PROS

- Simple for carpools
- Allows for use of non-switchable tags
- Enforcement visible to public

CONS

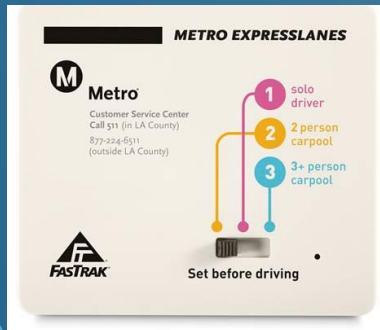
- Rely on beacon lights, better with observation zones
- Carpools with tags must “bag” them or use switchable tags
- No back up to collect tolls



SWITCHABLE TAG ENFORCEMENT

PROS

- Separates toll from occupancy violations when combined with VES
- Easy to declare occupancy
- Requires deliberate rather than “impulse” cheating



CONS

- Expensive tags
- Carpoolers must get accounts/tags
- Beacon lights divide police attention, better with observation areas ⁶

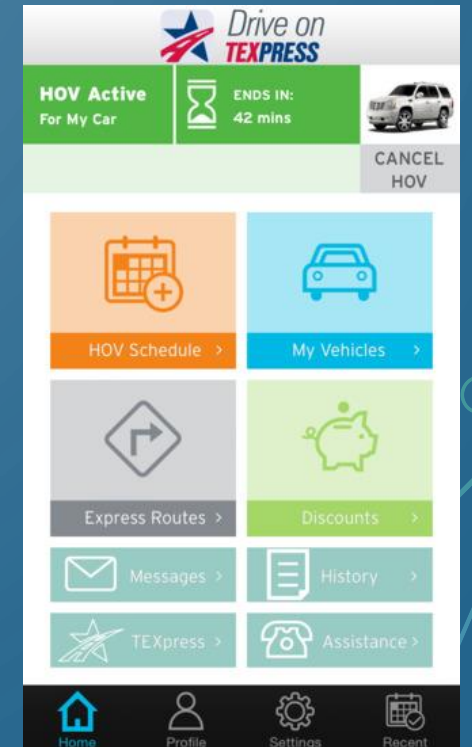
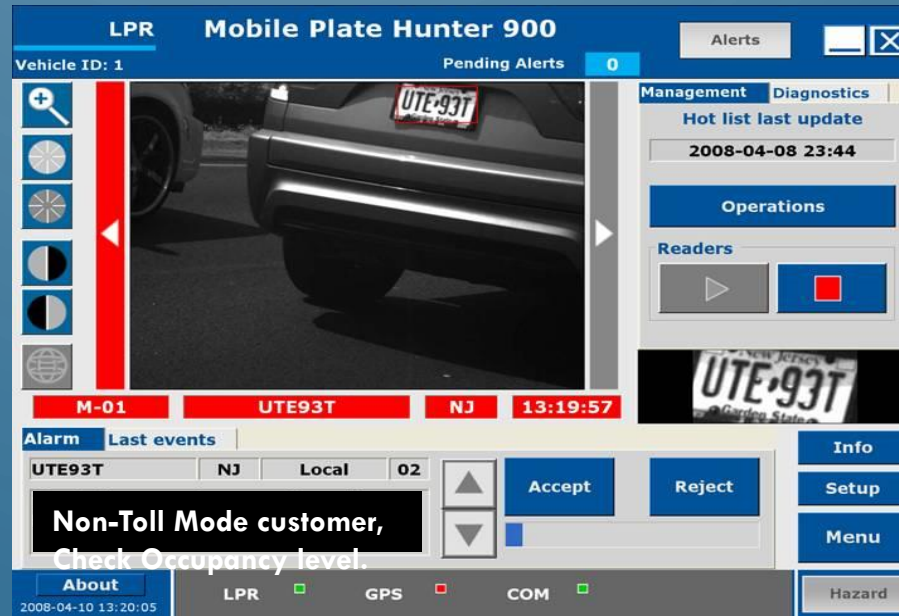
BACK OFFICE DECLARATION ENFORCEMENT

PROS

- Separates toll from occupancy violations
- Able to use cheaper non-switchable tags
- More flexible enforcement options

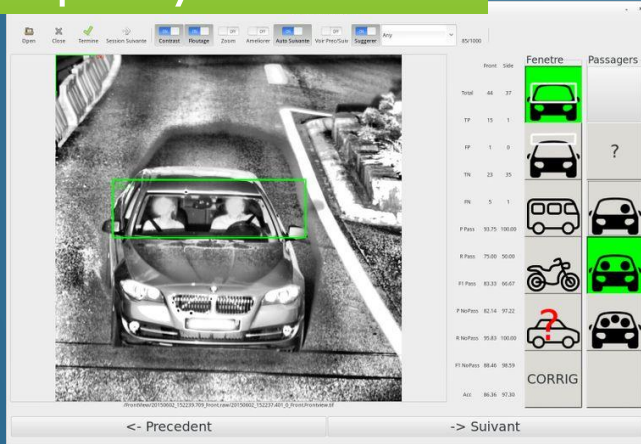
CONS

- Remember to declare in advance
- Potential Environmental Justice concerns
- If use Mobile ALPR, can be complex to deploy



OTHER ENFORCEMENT TECHNOLOGIES

Video Based Occupancy Detection



Bluetooth Based Occupancy Detection



In-Vehicle Sensors with RFID



- Ready to replace police enforcement of occupancy?
- Make police enforcement more cost effective?
- What are customer benefits of the technology?
- How do new technologies fit into your current or planned occupancy declaration and/or enforcement schemes?

COLLECT AND COMPARE DATA ON ENFORCEMENT TECHNOLOGY

- Irregular collection of occupancy enforcement data
 - Correctly declared occupancy vs. violation rates vs. citation issuance rates
 - Enforcement costs and public perception of efforts
- Difficult to evaluate/compare approaches and technologies
- Work towards regular, standardized, shared data
- Allow data driven decision making

Violation	Total
Occupancy	128
Double White Line	32
Driver's License Violations	53
Insurance Violations	56
License Plate Violations	127
Suspended Registration	90
Safety Restraint Violations	2
Emergency Lane or Gore	11
Window Tint Violation	2
DPS Rule Violation	4
Intersection Obstructed	1
Amber Light Violation	1
DUI	1
Fugitives Apprehended	7
Stolen Vehicles Recovered	1
Drug Arrests	1
Theft by Receiving	2
Other Offenses	168
Other Misdemeanor Violations	201
Other Felony Arrests	0

Sample citations for SRTA
I-85 for 6 months

ANY QUESTIONS?

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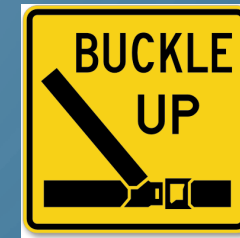
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MANY FLAVORS OF ENFORCEMENT



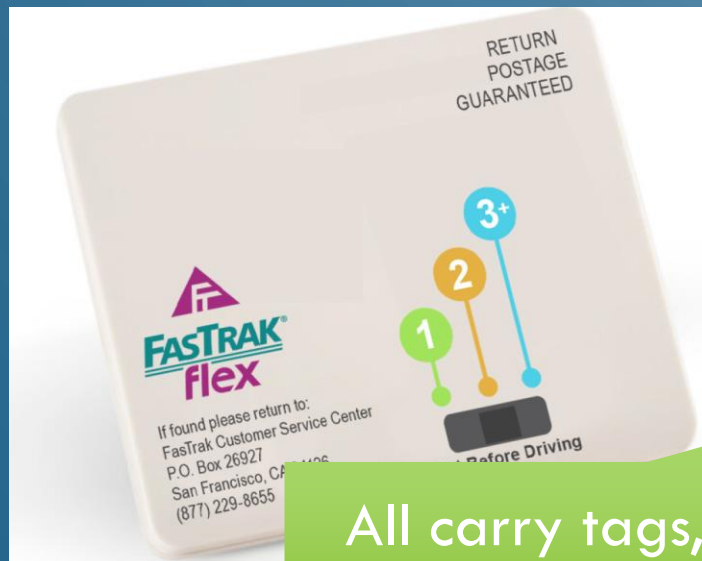
OCCUPANCY DECLARATION APPROACHES



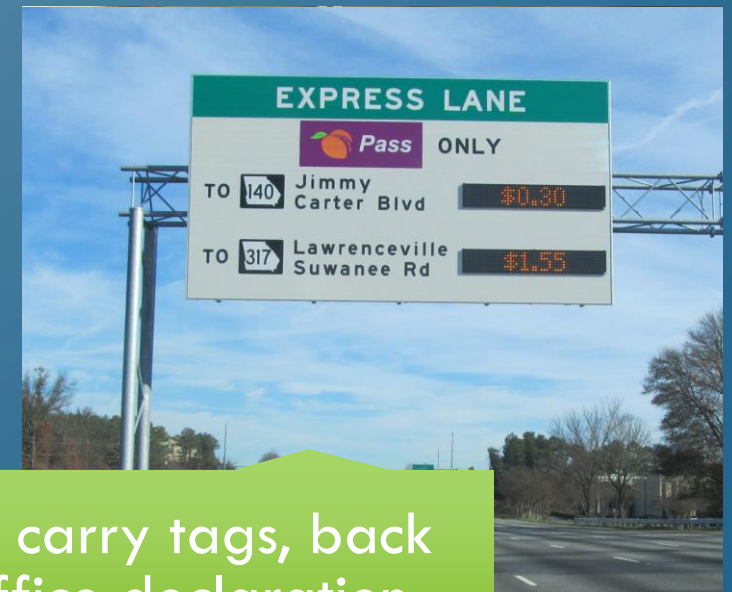
Dedicated lane



Require tags only for toll payers



All carry tags, HOV require switchable tag



All carry tags, back office declaration