Vehicle Allocation Methodology
Vehicle Allocation Methodology (VAM)

• **VAM Tool**
  - An automated vehicle justification protocol that uses utilization and survey responses to automatically make *preliminary* recommendations for vehicle actions such as:
    • Eliminate (high potential for removal)
    • Questionable (moderate potential for removal)
    • Retain
VAM Background

- **Objective criteria examples:**
  - per vehicle mileage
  - trips per vehicle
  - mission, terrain, climate
  - fleet condition and down-time

- **Subjective criteria example:**
  - user opinion of vehicle “criticality” (relative importance to agency mission)

- **Input methods:** surveys and/or stakeholder interviews
Utilization

- Utilization
  - Defined as number of trips, hours used, and/or miles traveled. (Trip: When the driver takes the vehicle from its normal parking area, leaves the premises, and then returns it to the premises at a later time.)

- Objective
  - A data-driven performance measure
  - A best practice for right-sizing
  - Sets the bar for vehicles allocated to an organization
Utilization Analysis Steps

Goal:
Identify vehicles “potentially under-utilized” in comparison with others of the same type and/or use.

1. Segregate inventory by vehicle type and/or department/operational unit
2. Calculate 50%* of the average annual mileage (the “threshold”)
3. Identify vehicles by type that fall below the “threshold” (aka the “Target List”)

*50% is typical however the threshold can be adjusted for each vehicle type and/or department/operational unit.
VAM Process Basics

• The VAM consists of 3 basic components:
  - Utilization analysis of inventory and identification of target list
  - Web-based survey of vehicle users
  - Excel-based “VAM Tool” that uses survey responses to recommend:
    • Vehicle retention/elimination
    • Vehicle type
    • Potential for use of alternative fuels

• The survey is tailored to your fleet
• The Tool is highly configurable
VAM Flowchart

1. Process Fleet Data
   - Data Request & Initial Thresholds
   - Target List
   - Fleet Inventory & Final Thresholds

2. Develop Survey
   - Sample Survey
   - Criticality Questions & Survey Responses

3. Customize VAM Tool
   - Submitted Surveys & Target List
   - Parameters

4. Develop Results
   - Current VAM Tool
   - Customized VAM Tool
   - Interviews
   - Report

Client

Recommendations
VAM Flowchart - Data Process

1.1 Get Raw Fleet Inventory

1.2 Scrub Data for Errors

1.3 Remove Classes and/or Operational Units Excluded from Study

1.4 Analyze Data by Class and/or Operational Unit

1.5 Set Initial Thresholds

1.6 Finalize Thresholds

1.7 Generate Target List

Data Request

Studied Inventory

Usage Statistics

Initial Thresholds

Final Thresholds

Target List

2 Develop Survey

Client

Data Template

List of Data Errors

Data Corrections

Raw Fleet Inventory

Corrected Fleet Inventory

Raw Fleet Inventory

Final Thresholds

Study Requirements
VAM Flowchart - Survey Process
## VAM Recommends Actions

<table>
<thead>
<tr>
<th>CLASS &amp; TAG #</th>
<th>Answer</th>
<th>Current Age (Years)</th>
<th>Current Miles / Year</th>
<th>Hours / Year</th>
<th>Trip / Year</th>
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VAM Tool
Applies Utilization and Criticality

Type 1: Miles per Year
Determination of Need (Results)
VAM Output Recommends Fleet Size

VAM Justification Answer by Region

Percent of Region’s Fleet

Region
A  B  C  D  E  F  G  H  I  J  K

VAM Justification Answer by Region

- Eliminate
- Question
- Retain
Sample VAM Survey Questions

6) What is the current odometer reading of this vehicle?
   
   [ ] miles

7) When was this reading taken (date)?
   
   [ ] Format: YYYY-MM-DD

8) Was this vehicle acquired new?
   
   [ ] Yes
   [ ] No

9) What was the odometer at time of acquisition?
   
   [ ] miles

10) How many trips per week does this vehicle average? (Trip: When the driver takes the vehicle from its normal parking area and then returns it to that same general area.)

   [ ] 1
   [ ] 2 to 3
   [ ] 4 to 6
   [ ] 7 to 12
   [ ] 13 or more

11) How many weeks per year is this vehicle used?

   [ ] 1 to 24
   [ ] 25 to 47
   [ ] 48 to 52

12) How many hours does a typical trip take for this vehicle?

   [ ] 0 to 0.5
   [ ] 0.5 to 1.5
   [ ] 1.5 to 3
   [ ] 3 to 5
   [ ] More than 5