WALTON COUNTY SHERIFF'S OFFICE
Fleet Management Study

In September 2014, the Walton County Sheriff's Office (WCSO) invited the Institute for Senior Professionals (ISP) to conduct a fleet management study.

During this time period, the WCSO had approximately 251 vehicles in its fleet, ranging in age from 13 years old to newly purchased.

The Sheriff's Office is interested in having an outside perspective on how to make usage of its fleet as economical and efficient as possible. Some of the questions the WCSO would like ISP to address are how:

1. To help the WCSO determine when a vehicle has reached the end of its life cycle and should be replaced
2. To develop measures that would optimize fleet utilization and efficiency
3. To find practical alternatives and improvements to the current fleet maintenance, including both "hard" costs and "soft costs
4. To make other recommendations that would improve fleet operations.

Based on discussions ISP had with various members of the WCSO team, there is widespread concern about the age and mileage of the fleet. The WCSO is looking for recommendations on how to optimize the use of their vehicles in order to prolong their useful life.

During the course of preparing this report, the ISP team gathered information from other police agencies in Georgia and Florida, including the Sheriff's offices in Bay County and Okaloosa County.

Throughout the course of this project, the ISP team of Art Miller, Bill Fletcher, and Randy Powers interviewed almost every officer in the WCSO, the people directly involved in vehicle maintenance for the WCSO, ad people in similar positions at other police departments.

ISP's Understanding of Vehicle Use and Maintained Vehicle Inventory

According to the WCSO mileage report issued September 20, 2014, the fleet consists of 251 vehicles. This excludes 18 "DEPO" vehicles, boats, prisoner vans, helicopters, trailers, etc. These numbers include approximately 12 trucks used for beach patrol, and four trucks used for animal control.

Of the 251 vehicles in the fleet, 137 marked and unmarked vehicles have more than 100,000 miles each. Ten others have more than 90,000 miles each. The remaining 104 vehicles have less than 90,000 miles each.

As of February 2015, WCSO had updated their inventory and reported 277 total vehicles (excluding boats and 4-wheelers). The inventory was divided into two categories: 145 used for patrol (critical) and 132 vehicles used as general or non-critical. There were 172 total vehicles having over 90,000 miles on the odometer.

New vehicles are currently being introduced to the fleet, many of them Chevrolet Caprices. In the spring of 2014, The Board of County Commissioners allocated $1,000,000 for the purchase of 25 vehicles. As of this report, the WCSO has accepted delivery of 20 of the Caprices, plus several other vehicles, for a total of 31 new vehicles in 2014. Three more vehicles are on order as of this writing.

Because the WCSO is responsible for policing a large geographical area -- Walton County is 1,240 square miles -- many patrol vehicles travel great distances each day.

Deputies on patrol can put 25,000 to 30,000 miles a year on a patrol car, which means a patrol car is likely to reach 100,000 in less than four years. Some vehicles travel 300-400 mile per shift.

Cars are typically assigned to a deputy, and he or she is allowed to use that vehicle to commute between home and work, except when a deputy's home is located outside Walton County.

It is generally agreed that the benefits of this policy, even though it requires more vehicles in the fleet that would be needed if a given car was driven 24/7, far outweighs the alternative. It also allows for a greater policy presence throughout the community in the form of off duty deputies

who could respond to a situation if needed. Using vehicles 24/7 would also mean that a vehicle that is currently driven 25,000 miles a year would be driven 75,000+ miles per year.

Deputies are provided with a fleet card that allows them to purchase gas when they are away from the Sheriff's office.

Maintenance Facility and Staffing

The current maintenance facility is located at the Sheriff's compound on Triple G Road, north of DeFuniak Springs. Most maintenance on vehicles is performed at this location, which means vehicles used to patrol in South Walton, such as in the Rosemary Beach or Sandestin neighborhoods, are driven 40-50 miles one-way for routine maintenance such as oil changes.

Using three hours as a typical round trip for deputies serving South Walton, and estimating the all-in costs of a deputy's time at approximately at $30-$40 per hour, plus mileage of 100 miles round trip at five (5) gallons of gas at $2.50 per gallon, a routine oil change, excluding the cost of mechanics time and materials used, is approximately $117.50 per oil change. More cost effective solutions are needed.

The distances and time needed for deputies to drive to the maintenance facility are significant. More cost effective and convenient arrangements are needed.

The fleet maintenance department consists of three mechanics who do all of their work at the maintenance facility. In addition to taking care of the current fleet, the maintenance crew also outfits new vehicles. Transmission replacement and body work is done by outside vendors.

Routine oil changes are typically done at 5,000 mile intervals. These changes typically take 30 minutes, however, many times when the mechanics do a routine oil change, they find other issues with the vehicles, which requires more time.

It is estimated that the average vehicle travels to the maintenance facility five times a year.

(While it is not directly a fleet management issue, it was reported that most deputies drive to the WCSO on average twice a week to hand in paperwork or take care of administrative matters.)

The maintenance crew estimates that they receive 12-15 calls per day for oil changes. Appointments have to be made manually. Of the 100 calls per month they receive requesting an oil change, more than 75% of the time additional maintenance is needed on the vehicle, such as brakes, filters, hoses, etc. Report dates from January 2 to February 12 which is 30 work days

Preventative Maintenance

According to the January 2015 statistics, there are:

Critical Vehicles: 66
Non-Critical Vehicles: 33
Total 99

Major Repairs

Critical Vehicles: 61
Non-Critical: 28
Total 89

Since the new maintenance software was first used in January 2015, this is the only data available on how many vehicles that go into the maintenance shop within 30 work days. Ninety-nine divided by 30 work days = 3.3 vehicles per day or about 17 oil changes per week. Eighty-nine divided by 30 work days = basically three (3) vehicles for major maintenance per day.

Preventative maintenance is 30 to 60 minutes for each car. The more common time for preventive maintenance is 60 minutes because we were told that oil changes leads to other maintenance repairs.

Major Maintenance could easily take up four (4) hours per vehicle per day.

From a different perspective, WCSO has 277 vehicles both critical and non-critical.

WCSO has 145 critical vehicles. If these 145 critical vehicles have six (6) oil changes per year, because they travel @30,000 miles per year, equals six (6) oil changes per year X 145 vehicles = 870 total oil visits per year, or 17 per week or about three (3) per day.

WCSO has132 non-critical vehicles. Assuming they travel 20,000 miles per year, that means these vehicles get four (4) oil changes per year X 132 =528 total oil visits per year or 11 visits per week or about two (2) per day. Therefore, three (3) + two (2) = five (5) vehicle visits per day for preventive maintenance.

Three WCSO mechanics are conducting five preventative maintenances every workday.

Their own data for 30 work days in January and February shows they are conducting an average of three minor maintenance tasks per day. If they have three major maintenance visits per day, it could require 1/2 day, or longer, for each major maintenance per mechanic every day

If it takes one mechanic one hour per preventative maintenance visit and they have approximately two (2) per day, that is two (2) hours total for minor maintenance.

If it takes one mechanic four (4) hours per major maintenance, and if they have about one per day per mechanic, that is four (4) hours total for major maintenance.

Six hours per day for direct mechanic work and two (2) hours for other duties is a reasonable assumption. It should be noted that none of the above numbers take into account a mechanic taking vacation or sick days.

The statistics indicate that the mechanics see eight cars per day total X five days = 40 cars per week. This may be the maximum number of vehicles the mechanics can handle. Not included in these numbers is the electrical work on the new vehicles.

The maintenance department maintains ten vehicles that are kept in reserve. Several deputies have indicated that there are not enough spares available when patrol vehicles break down.

The current maintenance facility is not considered adequate to handle the volume of work, nor does it appear possible to expand the current facility, other than to provide for additional storage.

Shortly after ISP began this project for the WCSO in the fall, ISP recommended that the WCSO enter into discussions with the South Walton Fire District, which is in the process of planning on new maintenance and training facility behind their headquarters on SR 393, north of Highway 98 in Santa Rosa Beach. As a result of that suggestion, Captain Audie Rowell of the WCSO met with Chief Rick Talbert for the purpose of discussing a cooperative venture whereby the WCSO would make use of, share some of the cost of the SWFD facility, should it be built in the coming year. Chief Talbert is most receptive to a cooperative venture and the discussion is on-going. No decision on cost sharing has been reached as of this writing.

The ISP team arranged for the South Walton Tourist Development Council (TDC) to talk with the WCSO and the SWFD about utilizing the SWFD facility for the maintenance of the 32 TDC vehicles. TDC is optimistic this will be a positive step for them as well.

Should an arrangement between the WCSO and the SWFD be reached, the tentative plan is to send a mechanics to the new garage to work two days a week, perhaps more. About 40 patrol cars and trucks operate on a regular basis south of the Bay.

The Walton County School District is currently in the process of building a new vehicle maintenance facility near the Freeport High School. ISP recommends that the WCSO also investigate a cooperative venture with the School District as an alternative to the arrangement suggested above with the South Walton Fire District.

ISP has one meeting with the management of Goodyear on Highway 98 to explore the possibility of their providing space for a WCSO mechanic to do basic maintenance, or for Goodyear to handle routine oil changes and basic maintenance. This would be a temporary solution until the SWFD facility is operational.

City of DeFuniak Springs Police Department Maintenance

The City of DeFuniak Springs Police Department, which has 26 vehicles in its fleet, uses Walton County Public Works Department to maintain its vehicles. Charges are deducted from their budget. Twenty two vehicles are assigned to sworn officers.

They buy new vehicles through the State Contract. They bought four new Dodge Chargers because of low price.

As with most police departments, they regret that Ford now longer produce the Crown Victoria.

Okaloosa County Maintenance

OCSO, which has two mechanics, performs all routine maintenance on the approximately 364 vehicles plus they have one additional mechanic who exclusively works electrical. OCSO contracts out transmission and bodywork. All other mechanical work is conducted in-house.

The mechanics perform work on three bays, with one used exclusively for installs.

OCSO Deputies use Microsoft Outlook calendar to schedule maintenance. They have only used this system for two months with some glitches, mainly stemming from the deputies not accustomed to the system.

The mechanics change oil in vehicles every 4,000 miles with some new cars requiring synthetic oil. The cars on the North end are on a 6,000 mile rotation because they have more long distance driving.

In the northern most part of the county, deputies use the County maintained shop for basic maintenance instead of driving to Shalimar for maintenance.

Bay County Maintenance

Bay County Sheriff's Office (BCSO) has approximately 350 vehicles to include motorcycles. Five mechanics provide maintenance such as oil change, brakes, transmission, bodywork and tires. Three of the five perform mechanic work, plus one body shop man (who is a contract employee who performs work on site) and one tire man who performs work at a different building with 3 bays.

Main maintenance facility has six bays with one bay strictly for oil change.

BCSO uses up to six trustees with one on oil change detail all of the time.

They have a policy similar to the WCSO -- one assigned vehicle per deputy, provided the deputy lives in the county.

There is no procedure or system for an officer to get an oil change, they just show up every 4,000 miles if use regular oil, longer for synthetic oil.

There are three bays for tire operations and this is a separate building. They also use this area for installations or “installs” on new vehicle.

BCSO is very strict about 4,000-mile oil change for each vehicle.

BCSO does not use mileage as a major determinate for replacing the vehicle. They strictly go by the condition of the vehicle, not mileage.

Radar calibration is outsourced to Williams Communications who travel from Tallahassee to perform on site calibration. They bring a mobile vehicle calibration unit to Bay County in addition to the radar calibration unit.

Radar and Speedometer Calibration

Approximately 35 patrol vehicles are equipped with radar. It is a requirement that these vehicles must have their speedometers and radar detectors calibrated every six months. The WCSO does not have the capability at present of conducting such calibrations. These vehicles must be driven to Shalimar, where the Okaloosa Sheriff’s Department does the work free of charge for the WCSO. The tests take 20-30 minutes, however, the tests are only done on Wednesdays from 8:00am –10:00am. In peak summer season, traveling from many parts of Walton County to and from Okaloosa could take three hours or more.

Although the vehicles that need calibration equate to only about 14% of the fleet, the time needed for 35 deputies to drive to Shalimar twice a year and the fact there is only a two hour weekly window to do the calibration, suggest a more efficient solution is needed from Sharimar,

A company named Florida Mobile Speed Testing (LLC) is in the business of providing radar and speedometer calibration for police departments throughout the State of Florida. They are registered with the Florida State Department of Agriculture as an authorized testing service pursuant to FS 559.904.

This company provides a mobile service to many police departments in Florida on a regular basis. They charge $20 for speedometers; $45 for radar; and $75 for lasers. They are capable of testing vehicles on site at the rate of about 10 minutes per vehicle. The owners, Mr. Tim Spaulding and Mr. Bill Godfrey, located at 731 Duval Station Road, Suite 107-144, Jacksonville, FL 32281-0800. Fmst04@hotmail.com. Contact: Ms. Lori Spaulding (904) 591 6918.

Using the statistics obtained from the WCSO's Human Resources Department, the average all in cost for a Deputy is about $29.88 per hour. Estimating 2.5 hours of a deputy's time, plus estimated mileage to and from Shalimar of 50 miles @ .50 per mile, the cost of a single radar test (even though Okaloosa proves the service free of charge) means that the WCSO pays approximately $85 per test, plus wear and tear on the vehicle. This figure does not account for the fact the deputy is not on patrol during that time period.

The City of DeFuniak Springs Police Department has 12 marked radar units and three hand-held lasers. All of them are calibrated at the same time, in June and December. Florida Mobile Speed Testing LLC brings a mobile unit to do the testing. ISP recommends the WCSO investigate the use of this mobile service.

Maintenance Software

The Georgia State Patrol uses the Department of Administrative Services (DOAS) automotive maintenance software with Automotive Resources International (ARI). They have used this software for seven years and have monitored 1200+ vehicles. GASP indicated they have been very pleased with ARI services.

The Fleet Manager for Georgas DOAS stated that ARI has been delivering services with the state for over 12 years. DOAS is starting to rebid this contract as they have done several time and ARI has won this bid each time. The State of Georgia is planning to "piggy back" with the State of Alabama on this next bidding cycle to make it even stronger for each state.

The way ARI works is they give out a credit card for each vehicle. The driver has an 800 number to call if there is a mechanical difficulty with the vehicle. ARI has certified vendors located throughout the state who are ready to inspect and repair the vehicle when necessary. ARI monitors routine maintenance and informs the state when maintenance is required. ARI also produces several annual reports for DOAS so they can better monitor the fleet in terms of when the vehicle needs replacing. The annual reports on all of the fleet is available at: http://doas.ga.gov/StateLocal/Fleet/Pages/FleetMVCMP.aspx

This link gives the reader an idea of the annual reports that ARI produces for their clients.

ARI costs $4.82 per vehicle per month, but this number was over $12 when they started with ARI. This reduction has occurred because of the number of years with the company and the fleet number has increased to 12,000 vehicles.

The Georgia Department of Transportation uses a company called “Fleet Anywhere”, which is said to be more expensive.

Several counties and cities in Georgia had started using ARI.

http://doas.ga.gov/StateLocal/Fleet/Pages/FleetMVCMP.aspx

http://doas.ga.gov/StateLocal/Fleet/Docs_Fleet_VehicleMaintenance/GAARI2005-2009Summary.pdf

http://doas.ga.gov/StateLocal/Fleet/Docs_Fleet_VehicleMaintenance/DOAS_ARI_Brochure.pdf

WCSO Software

The WCSO has recently purchased an economical and efficient software program, Fleet Maintenance Pro, (http://www.mtcpro.com/fleet-maintenance.htm), to manage their fleet and their shop supply inventory: Fleet Maintenance Pro Shop Version. WCSO has not had this type of analytical tool in the past to manage their fleet. This software has many features with many key elements, such as:

-Fleet Inventory Tracking: This feature includes recording each vehicle's year, make, model, serial number, and mileage.

-Preventative Maintenance: This part tells the user when a vehicle is due for service using color coded tags for easy identification: red for due immediately and yellow for easy viewing to tell the mechanic that service is due very soon. This will allow the WCSO to know where its fleet stands at any given time for preventative maintenance.

-Repair Maintenance: This feature keeps track and monitors trends in repair maintenance to help the WCSO management decide whether to keep or surplus a vehicle.

-History Recording: This part of the software allows the WSCO to analyze costs, and monitor trends in wear, neglect and abuse of any vehicle. This part of the software generates a preventive and repair maintenance history that lists all of the maintenance performed on the vehicle.

-Fuel Tracking: This records all fuel transactions so a mechanic will know exactly fuel consumption on any vehicle for any time period.

-Parts Inventory: This system automatically generates reports to itemize parts used when recording any maintenance performed and generate parts usage reports. It also will generate stock management and reorder notifications.

-Work Orders- This is completely automated to generate work orders for each vehicle based on the due maintenance. Once the work is completed, it automatically updates the vehicle history.

-Flexible Reporting: WCSO will be able to generate any type of monthly or yearend report that will give management simple fleet listing reports to detailed cost analysis for each vehicle or the entire fleet. This will assist management in budgeting when to purchase new vehicles and when to surplus the old ones.

Fleet Maintenance Pro software will provide all the information that WCSO will need to make critical fleet decisions.

ISP recommends continued and expanded use of Fleet Maintenance Pro, and that additional training be provided to the users of this software in order to ensure optimum benefit from the software. Once mastered, this software will generate reports that will provide all the data to manage their fleet efficiently.

Vehicle Options

The WCSO has done extensive research on all the police vehicles currently on the market. Since Ford stopped producing the widely-used Crown Victoria in 2011, the market for police vehicles has changed dramatically.

The WCSO has recently purchased about two dozen Chevrolet Caprices WCSO has 32 Chevrolet Caprices, with a vast majority used as patrol vehicles with most being purchased in 2011 and 2014. At this point, there is not enough historical data to determine how efficient and effective these automobiles are as patrol vehicles.

While it is too soon to draw conclusion about the durability and reliability of the Chevrolet Caprice, ISP has learned from various sources that deputies, especially ones who are above average height and weight, are less than enthusiastic about the cockpit of the vehicle. It appears to be even more of an issue if the previous vehicle the deputy drove was a Ford Crown Victoria.

A report produced by the WCSO's Sgt. Scott Hogeboom in 2013 compared several vehicles currently in use by police departments across the county.

Hogeboom's summary is as follows:

1. The Ford Expedition, currently used by WCSO Watch Commanders, is a full-size SUV with 55 cubic feet of cargo space behind the second row of seats. It has a 28 gallon fuel tank and a fuel rating of 13 city/18 highway/15 combined mpg. The Florida Sheriff's Association bid program lists this vehicle at a base price of $27,544.

2. The Chevrolet Tahoe is also a full sized sports utility vehicle. It has @58 cubic feet of cargo space behind the second row of seats, with a 26 gallon fuel tank; 15/21/17 mpg. The Florida Sheriff's Association bid program lists the Tahoe at $28,835 (4 wheel drive with police package) and 2 wheel drive pursuit vehicle at $26,349. This vehicle is used extensively by Florida State Troopers.

3. The Ford Interceptor SUV is an all-wheel drive vehicle with a 3.7 liter V6, and 18.6 gallon fuel capacity; 43.8 cubic feet of cargo space, and 16/21/18 mpg. It is the sister vehicle to the Ford Explorer. Several negatives were reported, such as pulling to the left, hard to get to spare tire, and limited visibility of the rear view mirror. FSA bid program price is $24,500.

4. Finally, the mid-sized Ford Explorer, 4 wheel drive with 3.5 liter V6 or 3.5 Liter Eco-boost V6, with an 18.6 gallon fuel tank, and 17/23/19 combined mpg. The FSA bid program base price is $24,499. It has the same time retrieval problem as the Ford Interceptor.

ISP agrees with Sgt. Hogeboom's conclusion that the Chevrolet Tahoe, with its renowned durability, large cargo area, better gas mileage compared to the Expedition, and 100,000 power train warranty, is an excellent choice for police work. ISP believes that WCSO concerns about the public perceiving the Tahoe as expensive luxury vehicles are without merit. While Chevrolet makes such models of the Tahoe, the vehicle is viewed as a highly dependable "workhorse" and all-purpose vehicle. It is also $4,000-$5,000 less than the Chevrolet Caprice.

Based on information learned from the Walton County Tourist Development Council, which has many vehicles used for beach patrol, special care must be taken with any vehicle that is regularly driven over sand. The TDC has had to replace alternators on several Toyota Tundras on average about twice a year, at almost $1,000 per each, because the sand is thrown into the alternators. Because these vehicles are used on the sand, the manufacturer's original warranty is void. ISP recommends that any WCSO vehicle used, even occasionally, for beach patrol should be specially protected against sand damage.

In recent months, the WCSO has introduced the Chevrolet Caprice into the fleet. Information is currently being collected as to its efficiency, durability, and cost effectiveness.

A report has just been released that indicated the 2016 Police Interceptor Utility (PIU), an Explorer-based cruiser, now accounts for over half of the police cars sold in the USA. It outsells Ford's Taurus Police Interceptor sedan by a two to one margin.

The new PIU has updated front and rear bodywork and lights, a new interior design that includes police-specific equipment, such as utility belt-friendly seats, and an interior dome light that can be switched from white to red for better night vision. There is an optional surveillance system that can detect someone sneaking up behind the vehicle, which alerts the passengers and automatically closes the windows and locks the doors.

All-wheel-drive is standard. The Police Interceptor Utility comes with either a 304 hp 3.7-liter V6 for regular duty, or a 365 hp 3.5-liter twin-turbo V6 if towing or high speed action is needed. Both are pursuit-rated and the vehicles automatically switch to a special Pursuit Mode if they sense they are being driven hard, which changes the transmission logic to stay in gear during maneuvers and optimizes the all-wheel-drive system to facilitate J-turns.

Additional observations

Several deputies also observed that many vehicles have room for only one suspect. Some deputies consider that to be a problem, especially when it is necessary to transport suspects from South Walton to the WCSO at DeFuniak Springs.

ISP considered the possible use of a single vehicle for the WCSO, just as Southwest Airlines achieves economies of scale by having only one type of aircraft, the B737, in its fleet. Given the diverse needs of the WCSO, such a system would not work. Cars, SUVs, pick-up trucks, and four wheel or AWD vehicles are needed in the fleet.

Suggestions

The WCSO maintains a sub-station on 331 in South Walton, across the road from the Walton County Annex. This substation sits on property owned by Regional Utilities. The agreement for the WCSO to operate this facility is based on a verbal agreement between the two parties. There is no indication that either party would seek to terminate the agreement, nonetheless, a more permanent arrangement is recommended.

As an alternative to, or in addition to, the substation, ISP recommends the WCSO consider purchasing property in South Walton or Freeport that would provide a suitable base in the southern part of the County, where much of department's business takes place. Such a facility would help to alleviate much of the travel and wear and tear on vehicles that occurs because of the need for vehicles to travel to the main facility north of DeFuniak Springs.

A five acre piece of property, located on Route 20 in Freeport, about ¼ mile west of 331, has been on the market for almost a year. It was listed for $395,000 six months ago, and is still available. The sign on the property indicated the buyer is highly motivated and is open to offers. With the four-laning of 331, and the increased growth that is likely to occur in the Freeport area and south, a facility in this location could be useful

ISP suggests that such a site, or similar ones, be considered to facilitate police business, and reduce time and mileage required to drive to the WCSO main office.

Summary

Key Imperatives:

-Cut down on travel time to the north

-Establish maintenance facility, or share facilities with other Walton County agencies, in South Walton or in nearby Freeport.

-Optimize use of Fleet Maintenance Pro through additional staff training

-Select new vehicles, as the budget will allow, based on durability and low maintenance rather than on initial price. The new software will facilitate this analysis because it will track costs per vehicle.