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Evaluation of the Michigan State Police Motorcycle Pilot Project: Analysis of Police Activity and Attitudes

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16. Abstract

A pilot project designed to examine the utility of including motorcycle patrols at the Metro Detroit State Police Post (Post 29) was conducted June 1, 1993 through August 31, 1993. The purpose of the project was to collect data allowing an effective evaluation of the enforcement and emergency response capabilities of police motorcycles in an urban freeway setting. This report details results of analyses of officer activity and attitudes regarding the Metro Detroit motorcycle pilot project. Officer activities were gathered using the standard Michigan Department of State Police, Uniform Services Division Daily Report (form UD-2) and Quarterly Activity Report (form UD-193). Officer attitudes regarding the program were obtained using face-to-face interviews with involved personnel.

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This report has three sections. The first describes data on officer activities gathered from Daily Activity reports (UD-8) completed by officers at the end of each shift, as summarized by Quarterly Activity reports (UD-193) from the summer quarter of 1992 and 1993. The second describes results of face-to-face interviews with Michigan State Police personnel involved with the project. The last describes data on patrol vehicle costs gathered by personnel at Michigan State Police Post 29.

Officer Activity

The activity data show that during the project period, most activity rates for motorcycle officers were about the same or slightly higher than those of patrol car officers (per patrol hour). However, motorcycle officers spent considerably more time on patrol, accumulated considerably more miles, speeding citations, traffic crash investigations, and passenger restraint citations per hour of patrol than did patrol car officers. When one considers only the activity rates per patrol hour, the motorcycles were only as effective as the patrol cars for conducting most of their traffic patrol duties. However, when one considers the differential in patrol hours between patrol cars and motorcycles (i.e., the motorcycles accumulated considerably more patrol hours), the benefits of including motorcycles in a freeway traffic patrol fleet become more clear. That is, while most activity *rates* per patrol hour between the two patrol vehicle types were quite similar, *total activities* per officer were higher for the motorcycle officers. For example, while the average monthly hazardous traffic arrest **rates** (per patrol hour) for motorcycle officers and patrol car officers were quite similar (1.179 and 1.166 respectively), the average monthly **number** of hazardous traffic arrests differ considerably (77.42 for motorcycle officers versus 60.84 for patrol car officers). The activity benefits of the motorcycle patrols were achieved without negatively affecting patrol car officer activity. Another positive effect of the differential in the number of hours on patrol and miles per patrol hour between the two vehicle types is that the motorcycles expand the presence of the State Police on the freeways being patrolled, an important factor in deterring misbehavior on the roadways.

Personnel Interviews

Individual interviews were conducted with each of the eleven troopers assigned to motorcycle patrol, as well as two Post 29 troopers on car patrols (day shift, selected because of their availability for the interview), one Post 29 shift supervisor (day shift), and the Post 29 Assistant Post Commander. Four dispatchers from the Northville operations center were interviewed as a group. Motorcycle officers indicated that they were satisfied with the performance of the motorcycles for patrol duties. The motorcycles were rated as significantly more maneuverable than patrol cars, especially in heavy traffic. However, loose material on the shoulders caused the officers some concerns. Spotting violators wasn't reported to be easier on motorcycles (indeed, some officers reported the need to keep one's eyes on the road made the

task more difficult); however, several officers reported that people committed violations more freely around the motorcycles (especially speeding) than they would around patrol cars. All officers reported motorcycles could reach crash scenes more quickly in heavy traffic, but that this advantage was lost when traffic was light. Officers were generally quite negative about extending motorcycle patrols into hours of darkness, voicing significant safety concerns. Problems with radio-headset compatibility made it difficult to assess issues about radio communications. However, it was made clear by the officers that improvements in radio-headset operations would be necessary before the project could be expanded. Finally, each of the motorcycle officers complained that the uniforms required during the test period were excessively hot.

Motorcycle officers were well received by both the general public and other post personnel. Officers on car patrol expressed some concerns about having to serve as transport for motorcycle officer arrests. Their primary concern was that these transport duties would detract from their patrol time and may negatively affect their personnel reviews. The Assistant Post Commander reported the program worked well; however, he stated that, "motorcycles are an excellent enhancement to enforcement, but the backbone is patrol cars." He stated he would like to have one to two patrol cars on duty for each motorcycle on patrol. The Shift Supervisor (MSP Sergeant) reported that the program worked well. He also noted that it would be helpful to have an additional sergeant to manage the motorcycle patrol fleet if the program were to continue full time.

The dispatchers had the following recommendations for the project: (1) better radios, preferable with voice activated systems to eliminate "cut-out" caused by the push-to-talk button vibrating on and off while the motorcycle was in motion, (2) cars are needed to back up motorcycles in each patrol area (at least 1 car in each patrol area that has a motorcycle pair on patrol), (3) a vehicle location system that would enhance identification of where vehicles are, especially useful in chases and times where communication is obstructed for one reason or another, and (4) a "man down" unit that would indicate when motorcycle officers are horizontal as a fast react system for problems.

Patrol Vehicle Costs

Regular maintenance and gasoline consumption costs show that, per mile driven, motorcycles were more efficient patrol vehicles than patrol cars. Insufficient data exist to examine costs associated with crash damage or officer injuries caused by crashes.

Introduction

The Michigan Department of State Police, in conjunction with the Michigan Department of Transportation, is responsible for the safe and efficient flow of traffic on Michigan's metropolitan freeways. This responsibility includes traffic law enforcement to increase drivers' compliance with laws, and clearing crashes and other traffic blocks that may disrupt the safe movement of traffic.

The metropolitan Detroit freeway system is made up of 67 miles of limited-access freeway and currently handles over one million vehicles daily. Limited access, which is vital for the ability of freeways to carry large volumes of traffic safely, makes it difficult to police these roads. This is especially true during rush hour. The high volumes of rush-hour traffic significantly impair the ability of officers in patrol cars to maneuver efficiently through the system. As a consequence, officers regularly witness traffic safety violations to which they cannot respond. In addition, these high volumes exacerbate reductions in traffic flow caused by blockages created by crashes, further impairing the ability of officers in patrol cars to reach a crash scene. Every minute an officer takes to respond to a crash increases the threat to injured persons who may be in need of medical care, and further slows the flow of traffic along the roadway.

A pilot project designed to examine the utility of including motorcycle patrols at the Metro Detroit State Police Post (Post 29) was conducted June 1, 1993 through August 31, 1993. The mission of the Metro Detroit State Police Post is "To provide effective patrol coverage and police visibility, while reducing the number of collisions and crimes on the freeways within the city of Detroit" (Appendix A, page 2, emphasis original). As stated in the project's policy and procedures manual (Appendix A, page 2), the purpose of the project was "To collect data allowing an effective evaluation of the enforcement and emergency response capabilities of police motorcycles in an urban freeway setting."

For this project, ten Harley Davidson motorcycles were donated (five FLHTP Electra Glide, Five FXRP Pursuit, descriptions of these vehicles can be found in Appendix B). Eleven officers were selected to serve as motorcycle patrol officers. All motorcycle patrol officers received specialized training to equip them with skills necessary to operate motorcycles as police patrol vehicles. In order for officers to be able to assess the operating characteristics of the two types of motorcycles used in the program, each of the motorcycle officers was assigned to one of the motorcycle types for the first half of the program, with assignments being switched to the other motorcycle type at the halfway point in the pilot program.

Motorcycle officers were expected to enforce traffic and criminal law in the same general manner as officers in patrol cars. However, special consideration was given to the fact that motorcycles do not offer the same protection to officers as cars. Program policies and procedures emphasized officer safety. For

example, it was emphasized that police motorcycles were not to be used as "high speed enforcement vehicles." Indeed, the policy was that "Motor officers will also terminate pursuit when speeds exceed 90 mph" (Appendix A, page 10, emphasis original). In addition, motorcycle patrols were limited to daylight hours during the day (6 a.m.-2 p.m.) and afternoon (2 p.m.-10 p.m.) shifts. The policies and procedures used in the day-to-day operation of the project are too lengthy to detail in this section; however, the entire "Motorcycle Project Policy and Procedure" manual is provided as Appendix A for persons interested in these details.

This report details results of analyses of officer activity and attitudes regarding the Metro Detroit motorcycle pilot project. In brief, officer activities were gathered using the standard Michigan Department of State Police, Uniform Services Division Daily Report (form UD-2, see Appendix C) and Quarterly Activity Report (form UD-193, see Appendix D). Officer attitudes regarding the program were obtained using face-to-face interviews with involved personnel.

Officer Activities

Officer activities were gathered from Daily Activity reports (Michigan Department of State Police form UD-2) completed by the officers at the end of each shift. Data from the UD-2 reports are summarized for each officer and post in Quarterly Activity reports (Michigan Department of State Police form UD-193). The UD-193 reports are "the Department's form for establishing and evaluating the overall quantitative activity performance level of the Uniform Services Division, districts, posts, and individual troopers assigned to patrol duties" (Appendix D, page 3). Using the data from the UD-193 reports from the summer quarter of 1992 and 1993 (recall that the motorcycle patrol units joined Post 29 for the months of summer quarter 1993), a data set was built including:

(1) Post 29 total patrol activities for summer quarter 1992 and 1993,

(2) Patrol activities for officers at Post 29 who were assigned to patrol cars during the summer quarter in 1992 and 1993,

(3) Patrol activities for officers at Post 29 who were assigned to patrol cars during the summer quarter in 1993 only, and

(4) Patrol activities for officers at Post 29 who were assigned to motorcycle patrol during the summer quarter 1993.

Data for each officer's patrol activity were entered into a data set including information on the type of patrol unit to which the officer was assigned, as well as the month and year of the activity report. In addition to activity counts, rates for activity levels per hour on patrol were calculated. These rates permit comparisons of patrol activity levels while controlling for the amount of time officers spent on patrol. Average monthly activity levels for the following three groups are reported in Tables 1 through 3. Definitions for each of the activities described in Tables 1 to 3 are provided in Appendix C.

Table 1 Overall post activity -- permitting a comparison of post activity levels when motorcycles were not part of the patrol fleet (1992) versus when motorcycles joined the patrol fleet of the post (1993).

Table 2 Patrol car officer activity for officers working at Post 29 during both 1992 and 1993 -- permitting a comparison of patrol car officer activities in summer quarter 1992 versus 1993.

Table 3 Activity of the day and afternoon patrol shifts in 1993 -- permitting a direct comparison of activities between officers in patrol cars versus officers on motorcycle patrol.

Table 1 Overall Post Activity (Monthly)		
Activity	**1992 -- w/o Motorcycles**	**1993 -- with Motorcycles**
Patrol Hours	2111.667	2186.667
Miles per patrol hour	22.875	24.975
Hazardous Traffic Arrests per patrol hour	1.045	1.023
Nonhazardous Traffic Arrests per patrol hour	0.641	0.606
OUIL Arrests per patrol hour	0.039	0.028
Felons Arrested per patrol hour	0.035	0.024
Misdemeanants Arrested per patrol hour	0.008	0.007
Fugitives Arrested per patrol hour	0.113	0.090
Warrants Satisfied per patrol hour	0.248	0.167
Cars Assisted per patrol hour	0.501	0.507
Cars Investigated per patrol hour	0.705	0.600
Verbal Warnings per patrol hour	0.825	0.678
Passenger Restraint Citations per patrol hour	1.279	1.157
Passenger Restraint Verbal Warnings per patrol hour	0.270	0.290
Motor Vehicle Crashes Investigated per patrol hour	0.270	0.231

As seen in Table 1, there are no appreciable differences in Overall Post activity between 1992 and 1993. There were no motorcycles at Post 29 in the summer quarter of 1992; however, the post patrol fleet included motorcycle patrol vehicles in the summer quarter of 1993. In order to determine if the presence of motorcycles in the post patrol fleet affected patrol activities of the patrol cars, one must determine if the patrol activity of officers who were using patrol cars in the summer quarters of both 1992 and 1993 differed between those two years. Table 2 details average monthly patrol activity for officers who were using patrol cars in the summer quarters of both 1992 and 1993.

Table 2 Average Monthly Activity of Officers Assigned to Patrol Cars at Post 29 Summer Quarter 1992 and 1993		
Activity	**1992**	**1993**
Patrol Hours	59.410	58.180
Miles per patrol hour	16.657	16.658
Hazardous Traffic Arrests per patrol hour	1.114	1.010
Nonhazardous Traffic Arrests per patrol hour	0.678	0.609
OUIL Arrests per patrol hour	0.075	0.041
Felons Arrested per patrol hour	0.031	0.031
Misdemeanants Arrested per patrol hour	0.007	0.007
Fugitives Arrested per patrol hour	0.121	0.098
Warrants Satisfied per patrol hour	0.263	0.173
Cars Assisted per patrol hour	0.549	0.432
Cars Investigated per patrol hour	0.743	0.713
Verbal Warnings per patrol hour	0.787	0.735
Passenger Restraint Citations per patrol hour	1.167	1.061
Passenger Restraint Verbal Warnings per patrol hour	0.329	0.309
Motor Vehicle Crashes Investigated per patrol hour	0.255	0.207

As seen in Table 2, there are no appreciable differences in average monthly patrol activity for officers who were using patrol cars in the summer quarters of both 1992 and 1993 between 1992 and 1993. It is fair to say that the presence of motorcycles in the Post 29 patrol fleet did not have an appreciable effect on patrol car officers' activity. Table 3 details average monthly patrol activity for motorcycle patrol officers (day and afternoon shifts) compared to activities of patrol car officers (day and afternoon shifts), to assess if the patrol activity of officers who were assigned to motorcycle patrol in the summer quarter of 1993 differed from that of officers assigned to car patrol in the summer quarter of 1993.

Table 3
Average Monthly Activity of Officers Assigned to Motorcycle Patrol and Patrol Cars at Post 29 Summer Quarter 1993 (Day and Afternoon Shifts Only)

Activity	Motorcycle Officers	Patrol Car Officers
Patrol Hours	65.667	52.178
Miles per patrol hour	24.043	15.771
Hazardous Traffic Arrests per patrol hour	1.179	1.166
Nonhazardous Traffic Arrests per patrol hour	0.701	0.691
OUIL Arrests per patrol hour	0.011	0.011
Felons Arrested per patrol hour	0.033	0.022
Misdemeanants Arrested per patrol hour	0.012	0.006
Fugitives Arrested per patrol hour	0.118	0.100
Warrants Satisfied per patrol hour	0.221	0.168
Cars Assisted per patrol hour	0.612	0.489
Cars Investigated per patrol hour	0.705	0.476
Verbal Warnings per patrol hour	0.758	0.745
Passenger Restraint Citations per patrol hour	1.561	1.073
Passenger Restraint Verbal Warnings per patrol hour	0.404	0.342
Motor Vehicle Crashes Investigated per patrol hour	0.341	0.184

Table 3 shows that there were considerable differences in the average number of patrol hours, as well as the patrol mileage, motor vehicle crash investigation, and passenger restraint citation rates per hour on patrol between motorcycle and car patrol officers. For all other activity variables, motorcycle officers had higher activity levels, although most of these differences are relatively small.

One might argue that the higher activity levels for the motorcycle officers may be due in large part to the fact that they were recruited and selected based on their ability and desire to be active in traffic patrol (as well as their interest and skills in motorcycle use). The possibility that recruitment was the major influence on motorcycle patrol activity can be examined using data collected specially for this project. In addition to the data normally collected on the UD-2 daily activity reports, officers used the "Local Use" UD-2 daily report fields in 1993 to record special activities of interest to the project. These data included hours

on car patrol, hours on motorcycle patrol, speeding citations issued while on car patrol, and speeding citations issued while on motorcycle patrol. Note that when conditions made use of the motorcycles impractical or impossible (through vehicle attrition for repairs or unfavorable climactic conditions), motorcycle officers were temporarily assigned to patrol cars. Therefore, we have patrol car activity levels for motorcycle officers when they were temporarily assigned to patrol cars and regular patrol car officers. These data are summarized in Table 4.

Table 4
"Local Use" UD-2 Activity Information

Activity	Patrol Car Officers Day Shift	Patrol Car Officers Aft. Shift	Motorcycle Officers
Speeding Citations Issued from Patrol Car per Hour of Patrol in Patrol Car	0.32	0.25	0.80
Speeding Citations Issued from Motorcycle per Hour of Patrol on Motorcycle	-NA-	-NA-	2.40

Table 4 shows that motorcycle officers issued more speeding tickets per hour of patrol than patrol car officers, regardless of what patrol vehicle they were using. This supports the hypothesis that some of the difference in activity levels between motorcycle and patrol car officers may be due to selective recruitment and selection. On the other hand, the activity of motorcycle patrol officers when on motorcycle patrol was considerably higher than their activity when using patrol cars. Indeed, it would appear that while there is some selective recruitment and selection effect on activity levels, there is also an independent positive effect of using motorcycles for speed enforcement. This effect may not hold for more general traffic patrol, however. When the "Hazardous Traffic Arrests per patrol hour" and "Nonhazardous Traffic Arrests per patrol hour" activities in Table 3 are examined, one will find that the differences in these activities between motorcycle and patrol car officers are much smaller than those noted in the "Local Use" speeding citation data. This would suggest that officers in the two vehicles are enforcing different traffic laws. While a large proportion of the hazardous traffic arrests for motorcycles were speeding citations (over 40%), the proportion for patrol car officers was much lower (15%).

In sum, the data show that during the project period, most activity rates of motorcycle officers were about the same or slightly higher than those of patrol car officers. On the other hand, motorcycle officers spent considerably more time on patrol, accumulated considerably more miles, speeding citations, traffic crash investigations, and passenger restraint citations per hour of patrol than did patrol car officers. When

one considers only the activity rates per patrol hour, the motorcycles were only as effective as the patrol cars for conducting most of their traffic patrol duties. However, when one considers the differential in patrol hours between patrol cars and motorcycles, the benefits of including motorcycles in a freeway traffic patrol fleet become more clear. That is, while most activity rates per patrol hour between the two patrol vehicle types were quite similar, total per officer activities were higher for the motorcycle officers. For example, while the average monthly hazardous traffic arrest **rates** (per patrol hour) for motorcycle officers and patrol car officers were quite similar (1.179 and 1.166 respectively), the average monthly **number** of hazardous traffic arrests differ considerably (77.42 for motorcycle officers versus 60.84 for patrol car officers). The activity benefits of the motorcycle patrols were achieved without negatively affecting patrol car officer activity. Recall from Table 2 that most of the activity levels of patrol car officers who were assigned to Metro Detroit Post 29 during the summer quarter in both 1992 and 1993 were virtually the same. Another positive effect of the differential in the number of hours on patrol and miles per patrol hour between the two vehicle types is that the motorcycles expand the presence of the State Police on the freeways being patrolled, an important factor in deterring misbehavior on the roadways.

Interviews

Individual interviews were conducted with each of the eleven troopers assigned to motorcycle patrol, as well as with two Post 29 troopers on car patrols (day shift, selected because of their availability for the interview), one Post 29 shift supervisor (day shift), and the Post 29 Assistant Post Commander. Four dispatchers from the Northville operations center were interviewed as a group. Dispatchers were selected for interview by the Northville Assistant Post Commander. All interviews of the motorcycle troopers were conducted using a standardized interview script. Other interviews were less structured, generally following issues unique to the job functions of the personnel interviewed. All interviews were conducted by Dr. Streff.

Motorcycle Patrol Officer Interviews

Vehicle-Related Issues

Motorcycle officers were first asked to consider whether or not the motorcycles provided were able to function adequately as patrol vehicles. All of the motorcycle officers stated that they thought the motorcycles performed their job as patrol vehicles adequately. In response to this query, two of the officers reported excessive maintenance downtime, one other officer reported downtime was no different than for a patrol car. While the responses showed these officers all believed the motorcycles tested were adequate patrol vehicles, they did not generally use superlatives when describing the vehicles' adequacy as patrol vehicles. However, the words that were used by some officers (e.g., "functioned quite well," "worked very well") suggest that the motorcycle officers believed motorcycles performed above a minimally acceptable level as patrol vehicles. My overall impression of responses to this interview item is that the officers were generally satisfied with the performance of the motorcycles for their patrol duties.

Officers were next asked if they thought the motorcycles were quick enough and fast enough for urban freeway patrol. They were told that "quick enough" meant their acceleration characteristics and "fast enough" referred to their top end speed. While there were some officers that would have liked machines with a wider performance envelope, the general consensus was that the machines were quick and fast enough to perform well for urban freeway patrol. Four of the officers indicated the motorcycles were not quick enough. Six officers indicated the FXRP was a quicker motorcycle; of these, one reported even the FXRP wasn't quick enough. The remaining five reported the difference in quickness was inconsequential. Four officers reported the motorcycles' top end speeds were inadequate.

The next question for the officers involved whether or not the motorcycles carried adequate equipment. All of the officers stated the motorcycles carried enough equipment. The only negative comment about equipment was that several of the officers reported they could have used more flares.

The next issue was motorcycle handling characteristics. In general, the officers reported the motorcycles handled well, and could be operated safely. There were consistent comments about the effects wind had on the stability of the FLHTP model. Several officers commented that the FLHTP was affected more by wind than the FXRP, making handling at high speed and cross winds more difficult. In addition to the comments about stability in wind, there were some negative comments about high speed wobble experienced on some of the vehicles. Three of the officers reported high speed wobble in the FLHTP model, especially at speeds over 90 miles per hour (perhaps associated with wind). There was one comment about a rear end wobble in the FXRP. One officer was particularly unhappy about the handling of the vehicles he used (indeed, he stated the vehicles he used had more problems than any other bike he had ridden).

When asked which motorcycle was best suited to the urban freeway patrol environment, there were seven in favor of the FLHTP and four in favor of the FXRP. Those favoring the FLHTP most often said it was more comfortable, more visible on the road (hence more safe), better fitting for tall officers, had a smoother ride, and the handling characteristics of the FLHTP were not sufficiently different from the FXRP to override these positive points. Those favoring the FXRP most often described maneuverability and speed as the attributes that lead them to that choice.

Patrol Techniques

In this section of the interview, officers were first asked to compare characteristics of motorcycle patrol techniques to those of patrol cars. The first question of this series involved the ability of officers on motorcycles to maneuver in urban freeway traffic. Each of the officers reported it was easier to maneuver on motorcycles than in patrol cars. Almost all of the officers used some sort of superlative to describe the ease with which they could maneuver (e.g., "1000 times better," "a hell of a lot better"). One officer qualified his opinion of improved maneuverability by stating that maneuverability was improved only in stop-and-go traffic. Two officers stated that while a motorcycle could go in spots where a car could not, one had to be careful not to get caught between cars not looking for another vehicle going between lanes and especially careful about loose material on the shoulders.

The next question addressed the ability to observe violators. In general, officers didn't think it was any easier to spot violators on a motorcycle than in a patrol car. Indeed, three of the officers stated that it may be a bit more difficult on a motorcycle because they had to keep their eyes on the road more, distracting them from the search for violators. On the other hand, four officers stated that they could see certain types of violations better from the motorcycle (e.g., steering column punched out on stolen vehicles, guns, alcohol). Several of the officers mentioned they thought that violators were easier to catch because the motorcycles were less conspicuous police vehicles than patrol cars, thus people violated traffic laws

(especially speeding) more freely around the motorcycles than they would around patrol cars. This may explain, in part, the difference in the number and rate of speeding citations issued between the two vehicle types described in the previous section.

Most officers reported that it was easier to position the motorcycle to make a traffic stop than to make a stop in a patrol car. Four officers reported getting into proper position to make a stop was no better or worse than in a patrol car. Among those that thought it was easier to position the vehicle for a stop, the rationale for those opinions was generally that the motorcycle was more maneuverable, making it easier to slip in behind the violators.

Most officers stated that there was no difference in the ease with which they could get a violator's vehicle to pull over when the officers were on motorcycle patrol versus car patrol; however, three officers reported that is was more difficult to get a car to pull over on the motorcycle. These three officers each stated that they believed the difficulties they experienced were related to the relative lack of conspicuity for the motorcycle versus the car. One officer stated that, in the beginning of the project, he experienced more difficulty on getting vehicles to pull over when he was riding the motorcycle, but that may have been due to a lack of familiarity with State Police motorcycles on the part of the public. Each of the three officers who expressed having difficulty stated they were always able to get the vehicle to pull over eventually. Two officers mentioned approaching the violator's vehicle on the driver's side and waving them over to the shoulder.

All of the motorcycle officers reported being able to see into violators' vehicles better when they were on motorcycles than when in patrol cars. They almost all reported they were sitting up higher, making it easier to see in. Some reported they had the ability to get closer to the driver's side of violator's vehicle, giving them a better view of the vehicle's contents. Most stated this increased visibility gave them an edge for their own safety (seeing guns and persons in the vehicle) and spotting punched steering columns, alcohol and other drug violations, etc.

When asked if they could reach crash scenes more quickly on a motorcycle than in a patrol car, all indicated there was a distinct advantage in heavy traffic. However, most of the officers indicated that when traffic was lighter, the advantage of the motorcycle was lost. Two officers stated that the motorcycles were especially good for getting to crash scenes as you got quite near to the scene (i.e., when traffic was really backed up).

Officers were asked if they were able to develop new patrol techniques (when patrolling on the motorcycle versus patrolling in a car) that improved their effectiveness in policing the urban freeway. Most

officers said they really didn't change their patrol techniques at all. Some stated that they made approaches from the passenger side (and would continue this when patrolling in a car). One officer stated that he made different types of stops when on motorcycle patrol (e.g., plate violations, safety belt violations). One officer stated that he was more leery of making "high risk stops" when on motorcycle patrol because of the radio troubles that were experienced by all the officers. Another officer stated that he made so many more contacts when on motorcycle patrol that he gave more verbal warnings than would have probably been the case if patrolling in a car.

Eight officers reported that advantages of motorcycle patrol (as compared to patrol car patrol) were more evident during rush hour. The advantage they all described was the ease with which the motorcycles could maneuver through traffic. On the other hand, a couple of officers reported that there was no particular advantage noticed during rush hour than was noticed at other times of the day, and another officer reported that the constant "clutch-throttle-brake-put-foot-down" cycle in stop-and-go traffic was particularly tiresome.

Opinions were mixed with respect to whether or not it was an advantage to be paired up during rush hours (six officers reported an advantage to being in pairs, four reported it was not an advantage and one reported yes-and-no). Those who reported pairing up during rush hour was an advantage generally felt it was safer, especially at crash scenes where one officer could work the crash and the second officer could work traffic control. Those who reported it was not an advantage reported that working in pairs should be up to officer discretion, that working pairs was difficult because they had to try to anticipate and look out for movements of their teammate (particularly in rush hour traffic). Indeed, two of the officers who reported pairing was no advantage reported that rush hour traffic was so slow that there was little need for a second officer, and that they could always call for backup if it were required.

When asked if motorcycles could be used safely in the hours of darkness prior to dawn or after dusk, or during the midnight shift, eight officers voiced strong negative opinions. These officers were concerned principally about two lighting issues: (1) having sufficient light to see into the cars of violators and (2) being seen on the motorcycle by other drivers. Some of these officers stated that while they could have used a flashlight on a stop, they would have to first go to the saddle bags to retrieve the light, and would have to take their eyes off the offenders for too long to be safe. Three officers responded that they thought the motorcycles could be used at these times, but that lighting was a concern, and that they thought that pairs of motorcycles would be necessary during hours of darkness to ensure officer safety.

In reference to the deployment of motorcycles, four officers reported that the deployment strategy used during the evaluation period was sufficient, and no changes were necessary. The remaining seven

officers had specific opinions on how deployment might be improved in the future. Six of these officers described changes in the paired officer system used during rush hour (four desired no required pairing of officers, two desired mandated pairing at all times with care being taken to ensure partner compatibility). The next most frequent comment was the need for additional patrol cars to support the motorcycles. Some officers suggested that they would have made more warrant checks if there were more cars available for transport (some believed they were tying up the patrol cars too much).

Interpersonal Issues

All but one of the officers reported the public's response to the motorcycle program was extremely positive. Some officers reported they had fewer arguments about the citations violators were issued. Others reported that during a traffic stop they weren't treated much differently than when they made stops in a patrol car. Most reported that citizens went out of their way to chat about the cycles and the project. Some officers stated that they thought some of the public reaction was due to the novelty of the motorcycles.

Aside from some ribbing about "being crazy" to ride a motorcycle on the freeways around Detroit, officers assigned to the motorcycle patrol duty generally felt they were treated no differently by the other officers at Post 29 (i.e., officers assigned to patrol cars) than the patrol car officers treated each other. There were a few comments from the motorcycle officers about some minor grumbling among the patrol car officers about having to make transports for the motorcycles, and very few (but some) comments about the "elite" nature of the motorcycle officers. Most of the motorcycle patrol officers stated they felt as though the other officers really liked their presence (especially because post staffing was increased by the project), and that the other officers were concerned about the safety of the motorcycle officers.

To a man, the motorcycle patrol officers reported that supervisors and command officers at the post treated them the same as the officers assigned to patrol cars. The only additional comment (from one motorcycle officer) was that he thought that some post policies were not enforced as strictly for the motorcycle officers who were assigned to the project from other posts. It should be noted, however, that this officer did not think motorcycle officers were given preferential treatment, but instead, the supervisory and command staff understood there were different roles that motorcycle and patrol car officers could fill.

In general, the motorcycle officers reported that it was their belief that the presence of motorcycle officers had a positive effect on post "society." Most reported that the atmosphere at the post was improved by the increase in staffing and good public relations that came from the project. Several of the officers reported that they thought that feelings of commraderie were increased due to the support that was necessary between motorcycle and patrol car officers. However, four officers reported there were some

negative feelings created by not selecting some officers from Post 29 that had applied for the project. There was some indication here again that some of the patrol car officers resented their role as transport for motorcycle officer arrests. In addition, there were a few, albeit limited, complaints perceived by the motorcycle patrol officers about their arrest and citation activity. A couple of officers reported they felt some pressure to ease up on their ticket writing activity so as not to increase the post baseline activity levels. Despite the comments about activity levels, the average activity levels for the motorcycle officers did not decrease as the project progressed. So, if there was some pressure to restrict activity levels, this pressure had no effect on actual activity of the motorcycle officers.

Radio Issues

It was universally acknowledged by all persons involved in the project that the radio headsets supplied to the motorcycle officers just plain didn't work. This problem required officers to use a handheld microphone to improve their communication link to the Northville dispatch office. Officer's were asked, aside from the fact that there were compatibility problems with the headset units supplied, if the basic *configuration* of an MSP radio with headset and a Detroit Police Department handheld radio was safe and sufficient. Nearly all the officers reported that the basic configuration was fine, but most had concerns about its implementation. The most common complaint was that the low-band radio had too many dead spots that impeded communication on the patrol routes. All the officers that mentioned the Detroit PD radio stated that it worked nearly flawlessly, and that they wished the MSP radios worked as well.

Most of the motorcycle officers reported that the radio call sign procedures were adequate. The most frequent complaints were that the call signs were long and hard to get used to. However, all the officers reported they got used to them, in time.

When asked what other problems they had with the radios, four officers reported that the antennas broke too easily. Three officers reported that it was hard to hear the radio over the engine and siren noise.

Most officers reported that the dispatchers handled the needs and problems of motorcycle officers well; however, they also reported that there were some "really good" dispatchers and some dispatchers who didn't seem to understand the nature of traffic patrol on a motorcycle. Specifically, there were six officers who reported that they were occasionally requested to split up during rush hour (against general policy), and that they were asked to respond to situations that would require a patrol car. In defense of the dispatchers, these officers also reported that once the dispatchers were reminded of the ground rules, they would modify the request. In addition, three officers stated that they thought that some dispatchers were a little reluctant to send motorcycles on some calls because of the problems associated with the poor radio reception/transmission quality.

Six of the officers reported that the only need for improving dispatch of motorcycle officers would be a better radio system. Three officers reported that dispatchers could use better training on what motorcycle patrol officers can and can't do so they can better respond to the needs of the officers in the field.

When asked how the radio system could be improved, all the officers reported wanting a better boom mike (some indicated that voice activation would be useful). Nearly all mentioned that they wanted radio equipment that was better matched (i.e., radios designed for motorcycles and equipment components that matched). Two officers mentioned including a "priority channel" or a voice override to interrupt dispatch when it is necessary.

General Issues

All but one of the motorcycle officers reportedly thought that the addition of motorcycles to the urban freeway patrol fleet was a good idea and should be continued. Each of these officers reported that the rationale for their statement was that the motorcycles had significant positive public relations value, that the motorcycles were excellent traffic enforcement vehicles because of their maneuverability (especially in heavy traffic), and many added that it was much easier to respond to crash sites on the motorcycle. The officer who reported that the addition of motorcycles to the freeway fleet was not an advantage based his statement on his impression that cars were enough and his concern about the limitations of motorcycles (e.g., can't use them at night, in winter, in rain, they provide no way to transport prisoners).

All but one of the officers stated that motorcycles would be useful at posts other than Post 29. While many specific posts were mentioned by the officers, there was a consistent theme in the criteria the officers used in making their recommendations. That is, they reported that the motorcycle patrols would be useful at other posts with urban freeway environments (example posts reported included Northville, Flint, Grand Rapids, Flat Rock). The officer who stated that motorcycles would not be useful elsewhere reported that he didn't think there was an advantage to having them at Post 29, and didn't think that they would be any better at another post.

When asked how many motorcycles would be useful to have assigned to Post 29, responses ranged from one to two for special events only (for PR, no patrol) to "all you can get." Admittedly, the latter officer's response was facetious, and the high end of the scale was fifteen motorcycles assigned to Post 29. Five officers reported that ten motorcycles on patrol was a good number. Several officers stated that the appropriate number of motorcycles assigned to Post 29 (or any other post for that matter) should *not* be independent of the number of patrol cars available during any given shift when motorcycles would be on patrol. That is, these officers reported that there was a minimum car-to-motorcycle ratio that should be

maintained. The car-to-motorcycle ratios suggested ranged from one-to-one up to three or four motorcycles per car on patrol.

All officers reported that they thought the motorcycle training they got was adequate. However, all but two of the officers stated that they thought that they would have liked more practice time on the track in Lansing. The remaining two officers reported that the training was just fine as it was.

Most officers reported that the equipment they were provided was sufficient, but there were some specific requests for equipment modification or addition. Six of the officers reported a desire for red and blue strobe lights (high-intensity) for the front of the motorcycles (some desire for increased lighting for the rear was also reported). Three officers reported a desire to have a radar unit while on patrol, two officers reported a desire for notebook computers with a cellular modem, additional storage for flares, and better battery or electrical system, and one officer reported a desire for a PA system and a place to mount a long gun.

Comments regarding the uniforms almost all involved comfort while riding, especially the heat. Almost to a man, officers reported that the ties were too hot and that they had a tendency to blow up in their faces (many ended up pinning the ties down to their shirts with safety pins). Nine of the officers expressed a desire for a half-helmet in place of the 3/4-face helmets used during the project. This was based on two primary complaints: heat and visibility restriction. Two officers reported that the department should provide riding glasses for the officers. There were also frequent complaints that the uniform pants did not fit comfortably. Every officer reported that they were simply too hot in the uniforms provided. Although there were some suggestions (e.g., no tie, light colored shirt), it is unclear how well these changes might have improved officer comfort.

Post 29 Patrol Car Officer Interviews

As noted at the beginning of the interview section of the report, two officers at Post 29 who worked patrol cars during the day shift were interviewed. These officers were selected because of their availability for the interview at the end of their shift. Both officers spoke quite positively about the project. They were especially positive about the motorcycle's ability to respond quickly to crash scenes, the positive PR the program generated, and the diversity that was added to the post culture through the project. Both would recommend continuation of the program. Both officers also were happy to have the extra manpower at the post. Indeed, one officer reported that if extra manpower were assigned to Post 29, he would like to see motorcycles be a significant part of the manpower assignment.

Neither officer reported any negative attitude coming from the motorcycle officers (e.g., no airs of superiority from motorcycle officers). One of the officers stated that maintaining an "elite" force of motorcycle officers wouldn't have a negative effect on post morale, especially if the motorcycle officers were a supplement to the existing staffing. This officer also noted that he thought the motorcycle patrol group should remain a highly select, "elite" team. In addition, both officers expressed the belief that the patrol car officers had significant concerns about the safety of the motorcycle officers. They were both quite relieved that no one was hurt during the project, and expressed their continuing concern that motorcycle officers would be injured if the project was extended or expanded. These expressions of concern bolster the contention that there was considerable support for the motorcycle officers among the patrol car officers.

All of the negative comments from the patrol car officers interviewed centered around activity reporting and transporting prisoners for motorcycle officers. Transporting prisoners ties up two units (a car and a motorcycle) and the accompanying personnel. Transport time takes away from a patrol car officer's patrol time and subsequent arrest activity. Concern was expressed that patrol car officer activity reviews would be negatively impacted because of the time they would not be able to use for patrol or arrest activity. One officer suggested that separate records and activity baselines be maintained for motorcycle and patrol car officers at posts where motorcycle officers are present, and that performance review processes at these posts account for differing responsibilities. Another suggestion was that a special policy be created for motorcycle officers vis-a-vis arrests. Specifically, it was suggested that motorcycle patrol officers arrest (and thus request transport) only for felony warrants, and not for "minor" traffic citation warrants.

Assistant Post Commander (Post 29) Interview

This interviewee arrived at Post 29 in July (midpoint in the project). He reports that in his opinion the program worked well and that the motorcycle officers put in extra effort to ensure the program worked. His impression was that the motorcycle officers were able to arrive at crash scenes more quickly than patrol car officers. He perceived no animosity between patrol car and motorcycle officers, and thought that the effect of the program on post morale was positive. He was aware of no complaints from citizens or other agencies about the motorcycle officers. Indeed, many requests for use of the motorcycles at special events were received (and had to be refused due to the need to use the motorcycles to the maximum extent on freeway patrol activities).

In order to improve the program, the Asst. Post Cmdr. would like to have one to two patrol cars for each motorcycle on patrol. He stated that there were not always a sufficient number of patrol cars to back up the motorcycle officers during the project period. Indeed, he stated that "motorcycles are an excellent enhancement to enforcement, but the backbone is patrol cars." He also noted that it would be useful to have a trained staff member at the post to transport motorcycles in need of repair to the shop.

In sum, the Asst. Post Cmdr. stated that he would like to see the program continue because motorcycles worked well on the freeways covered by Post 29, in large part because of the high traffic volumes encountered there. In fact, he stated the belief that the project could be extended to other urban areas with patrol corridors similar to those covered by Post 29. He stated that the program had a strong positive impact on the public image of the Department and the post in particular. Finally, he stated that the motorcycle corps should remain an "elite" group of officers. One reason the program worked so well, in his opinion, was that the officers selected were highly motivated achievers, and the future success of the program will be strongly influenced by ensuring the selection process identifies these types of officers.

Shift Supervisor (Day shift -- Post 29) Interview

The day shift supervisor reported the program worked well. In his view, motorcycle officers had exemplary activity levels, but there was little difference in their ability to reach crash scenes quickly (except perhaps in peak rush times). The program had no negative impact on the performance of his job, indeed he was pleased to have the increased manpower at the post. Negative comments focused on the significant radio problems encountered by the motorcycle officers and the uniforms the motorcycle officers were required to wear. It was his view that more time should be spent to ensure that the uniforms required for the motorcycle officers be designed to better meet the needs of the officers. Specifically, he commented that ties were appropriate uniform attire, but that the officers should have been issued gloves and leathers.

The sergeant reported that he detected no animosity between motorcycle and patrol car officers, including potential upset over differential activity levels. He noted, however that there would have probably been a significant outcry if the paperwork load of motorcycle officers was somehow shifted to other officers. He supported the pairing of motorcycle officers for safety purposes, especially during peak rush hours; however, he didn't think pairs were necessary during most of day shift or on weekends or holidays. With respect to total patrol fleet allocations, he stated that he would like to have 40 total vehicles at Post 29, of which fifteen or sixteen would be motorcycles (he also summarized he would like about two cars for every motorcycle).

Points the staff supervisor wanted stressed were: (1) if motorcycles are to continue on a regular basis the radios must be improved significantly and the motorcycle-electrical system equipment fit must be improved (noting that the electrical system seemed to provide insufficient power for the police equipment), and (2) while motorcycle patrols increased his workload, they were effective traffic patrol units (he also noted that an additional sergeant would be useful to manage the motorcycle patrol fleet if the program was to continue full time).

Dispatcher Interviews

Four dispatchers (selected by the Assistant Post Commander at the Northville Post) were interviewed as a group. Their major comment was that the radio systems on the motorcycles were extremely poor. Indeed, the dispatchers expressed considerable concern about their ability to perform their jobs well (primarily locating officers and their status) because of the transmission quality of the radios used in the project. This concern was dramatically expressed in their worry over officer safety when the officers were, for all intents and purposes, out of contact with dispatch for significant periods of time due to radio problems, often during "chases."

It was the view of the dispatchers that motorcycle officers were able to get to crash scenes more quickly than patrol cars. They also reported that they thought that the time to clear for motorcycle officers was quicker. These perceptions were especially prevalent for "really bad crashes" and at times when there was lots of traffic.

Other than the constant problems experienced with the motorcycle radios, the dispatchers mentioned a few other frustrations they encountered in the course of the project. First, they had difficulty dispatching when there was one car and two motorcycles that were not supposed to split up in an area and there were four problems that required police response. Obviously, there would always be a problem with more action items than patrol units; however, the dispatchers reported the problem was confounded by the motorcycle pairing requirements. Dispatchers did note that often motorcycle officers did split up when their response was required, despite the motorcycle pair rule. Dispatchers also noted that there were occasional problems getting patrol cars for prisoner pickup. Some believed there was some resentment on the part of the patrol officers, who often only begrudgingly made pickups. This was especially true for calls that were out of the assigned patrol area of the patrol car. On the other hand, dispatchers noted that this problem may have never occurred if there were more patrol cars available in the patrol area. Indeed, when cars were close by, the problem did not manifest itself. On this same vein, dispatchers reported that mixing areas for pickup complicated their job (probably due to cars being out of their normal position).

In sum, the dispatchers had the following recommendations for the project: (1) better radios, preferably with voice-activated systems to eliminate "cut-out" caused by the push-to-talk button vibrating on and off while the motorcycle was in motion, (2) cars are needed to back up motorcycles in each patrol area (at least one car in each patrol area that has a motorcycle pair on patrol), (3) a vehicle location system that would enhance identification of where vehicles are, especially useful in chases and times where communication is obstructed for one reason or another, and (4) a "man down" unit that would indicate when motorcycle officers are horizontal as a fast react system for problems.

Patrol Vehicle Cost Comparisons

Data on maintenance, repair, and gasoline consumption for patrol cars and motorcycles used at Post 29 during the project period were provided by Metro Detroit Post 29 and are detailed in Table 5.

Table 5
Cost Comparisons for Project Vehicles

Vehicle Type	Maintenance Cost	Miles per Gallon	Crash Repair Costs		
			# Vehicles Crashed	Total Repair Costs	Repair Cost per Crash
Motorcycle	$0.0742 per mile	38.79 mpg	3	$7243.00	$2414
Patrol Car	$0.0801 per mile	14.69 mpg	7	$8059.42	$1151

In addition to the vehicle costs noted in Table 5, the crashes resulted in injury to some involved officers. None of the injuries reported was more severe than bruising. While the gas consumption and maintenance figures probably reflect general experience, crash experience and costs probably do not. That is, crashes and their associated costs are not as deterministic as regular maintenance and gasoline consumption. Therefore, it is unwise to extrapolate future costs associated with crash-involved patrol vehicles from the data presented here. On the other hand, regular maintenance and gasoline consumption costs show that, per mile driven, motorcycles were more efficient patrol vehicles than patrol cars.

Appendix A

Pilot Motorcycle Project Policy and Procedure

State of Michigan

DEPARTMENT OF STATE POLICE

PILOT MOTORCYCLE PROJECT

POLICY AND PROCEDURE

June 1, 1993 through August 31, 1993

TABLE OF CONTENTS

Project Location:

Pilot program will be conducted at the Detroit Freeway Post.

Project Director:

F/Lt. James Downer
Michigan Department of State Police
Executive Division
Telephone: (517) 336-6148

Operations Supervisor:

F/Lt. Dewayne P. Brantley
Michigan Department of State Police
Detroit Freeway Post
Telephone: (313) 256-2970

Selected Motor Officers:

Officers	Home Post	Enlistment
Tpr. Patrick Pengelly	Detroit	06-11-78
Tpr. Mark Thompson	Northville	09-03-84
Tpr. Brian Cribbs	Detroit	12-02-84
Tpr. Wayne Barrigar	Pontiac	04-01-86
Tpr. Gary Melvin	Detroit	04-01-86
Tpr. Blake Dilley	Detroit	02-21-88
Tpr. Stephen Galbreath	Ypsilanti	08-21-88
Tpr. David Hall	Erie	01-21-90
Tpr. Dennis Harris	Flat Rock	01-21-90
Tpr. David Wiegand	Northville	01-21-90
Tpr. Nathaniel McQueen	New Baltimore	01-21-90

Total Officers 11

Donated Motorcycles:

Five Police equipped Harley Davidson, **FLHTP Electra Glide** motorcycles.

Five Police equipped Harley Davidson, **FXRP Pursuit Glide** motorcycles.

Owner: **A.B.C. Harley-Davidson, Inc. / Contact: Dennis Atherton**
4405 Highland Rd, Waterford Michigan 48328
Telephone: (313) 674-1630

PURPOSE

To collect data allowing an effective evaluation of the enforcement and emergency response capabilities of police motorcycles in an urban freeway setting.

PROJECT GOALS

To complete this project with a high standard of motor officer safety and no injuries.

To identify advantages and disadvantages of police motorcycles, while determining the types of patrol activities they are best suited for.

To provide the department with an accurate evaluation, enabling an educated decision as to whether motorcycles should become a permanent part of our fleet.

DETROIT POST MISSION

To provide effective patrol coverage and police visibility, while reducing the number of collisions and crimes on the freeways within the city of Detroit.

With this mission in mind, motor officers are encouraged to conduct patrols, with their focus solely on the freeways.

DETROIT ORIENTATION

Motor officers temporarily assigned during the course of this project, will be provided informational packets covering Detroit policy and procedure. They will also receive orientation prior to commencement.

PROJECT PERIOD

The motorcycle project will commence on June 1, 1993 and conclude on August 31, 1993.

MOTORCYCLE ASSIGNMENTS

For the purposes of this project one or two motor officers will be assigned to each motorcycle. Since there are two Harley Davidson models, assignments shall be rotated so that each officer gets equal riding time on each model.

MOTORCYCLE USE RESTRICTED

No departmental member shall operate, move, or tamper with a departmental motorcycle unless duly trained and authorized by the Project Director, or approved through the Second District Commander.

Motor officers shall not allow untrained officers to operate departmental motorcycles, even if they have motorcycle endorsements.

REQUIRED GEAR AND EQUIPMENT

Motor Officers must wear the issued helmet, safety glasses, leather gloves, protective vest and issued boots at all times while on motorcycle duty. Special precautions should be made to prevent dropping helmets on hard surfaces, as this decreases the protective ability of the helmet.

Officers should ensure their assigned motorcycle has the following equipment prior to and after each patrol:

-First aid kit / Haz Mat Guide
-Brief case/ UD-8s / UD-10 / UD-7B
-Minimum of six flares
-Reflective vest -Air Suspension / Tire Gauge
-Fire Extinguisher

Note: Equipment stored in saddle bags have been evenly distributed to keep the weight of the motorcycle evenly balanced.

RADIO SYSTEMS

PRIMARY RADIO

Low band Erricson GE radios affixed to motorcycles; with speaker and microphone equipped helmets, and microphone buttons affixed to handle bars. Radio operation should not distract from motorcycle operation, and this system should allow adequate communication with Metro and other MSP Stations.

SECONDARY RADIO

Hand held portable radios from the Detroit Police Department. When motor officers are unable to get to their primary radios, secondary radios will provide a means of requesting assistance through DPD. All routine radio traffic should be run through the primary radio. If the primary radio can be reached without endangerment (during an emergency), officers should use the primary as opposed to the secondary radio.

The secondary radio will be monitored by DPD on their District One frequency. Motor officers must check in and out with DPD at the beginning and ending of their patrols.

Each officer will be assigned one portable radio during the course of this project. Each radio will be stored and recharged in a designated area at the Detroit Post. Officers should ensure each radio is properly returned to the charger at the conclusion of their shift.

MOTORCYCLE CALL NUMBERS

The ten motorcycles being used for this project will have State owned plates attached and will use a 2990 numbering series (2990 through 2999).

For purposes of patrol beat identification, motorcycles will be referred to as:

"Motor Adam 1"	and	"Motor Adam 2"
"Motor Boy 1"	and	"Motor Boy 2"
"Motor Charles 1"	and	"Motor Charles 2"

and so on. Motor shall prefix the beat assignment, followed by the number of units paired to each beat. With patrol cars being identified as 29 Adam and so forth, the Motor prefix should quickly differentiate motorcycle patrols from normal patrols.

STORAGE AND SECURITY

During the course of this project motorcycles shall be stored and secured at the Detroit Post in a designated area of the secured parking lot. Motorcycles will be equipped with covers to protect them from the elements.

Officers will not be allowed to take motorcycles home overnight without the approval of the Assistant Post Commander.

Upon securing motorcycles at the conclusion of duty, motor officers shall remove ignition keys and place them on the key board located in the Platoon Commanders office.

REQUIRED INSPECTIONS

DAILY INSPECTION

Prior to and after patrols, each motor officer shall be responsible to inspect the appearance and mechanics of their motorcycles. Any damage or malfunction shall be immediately reported to a supervisor.

MONTHLY INSPECTION

A designated supervisors will inspect each motorcycle monthly, utilizing a Motorcycle Inspection Form (29-693).

GENERAL MAINTENANCE AND CLEANING

MAINTENANCE

It shall be the responsibility of each motor officer to seek repairs and schedule maintenance as necessary, however, such request must be routed through a supervisor. Dealer maintenance is required every 2500 miles.

ABC Harley Davidson of Waterford is the only approved dealership authorized to service and maintenance motorcycles assigned. As motorcycles require maintenance, ABC will pickup, transport, service and return each motorcycle as quickly as possible.

Equipment and supplies to maintain proper fluid and air levels will be available at the Detroit Post.

CLEANING

Motor officers will be given 2 hours bi-weekly to clean their assigned motorcycle. Officers should spend 15 to 20 minutes prior to each shift to assure a clean motorcycle is being placed into service.

S-100, a biodegradable cleaning solution, shall be available so that motor officers may quickly spray down and rinse their units within the confines of the Detroit Post. Officers should avoid however, spraying water into the switches and other devices located on the handle bars.

REFUELING

While refueling, special care should taken so as not to spill fuel on the finish of the motorcycle.

Both models of the Harley Davidson Motorcycle, operate on premium unleaded fuel only.

Motor officers shall refuel at the Shell Service Station located at 1715 Michigan Ave. (Frank's Stadium Service) at 11th St., in the city of Detroit. Since fuel cost will be paid through the grant, officers will be required to log the amount and cost of fuel on their dailies.

TOWING OF MOTORCYCLES

At the request of the ABC Harley Davidson of Waterford, motorcycles shall be towed solely by Boulevard and Trumbull Towing (B&T's) by flat bed only. Towing of motorcycles in any other manner is prohibited.

SHIFT BIDDING/O.T. EQUAL /VACATIONS

Shift bidding, overtime equalization and vacation selection will be processed pursuant the M.S.P. / M.S.P.T.A. collective bargaining agreement. However, during the course of this project, motor officers will be considered a separate unit and will not bid for shifts, vacations or have overtime equalized with the rest of the Detroit Post.

SCHEDULING

Motor officers will be placed on three week rotations during the course of this project, and will normally have every third weekend off. This will utilize all eleven motor officers and should keep a minimum of seven and maximum of eleven motorcycles in service every day of the week.

SHIFT STAFFING

For purposes of this project, motor officers will be distributed between the day and afternoon shifts. Six on days and five on afternoons.

Day Shift: 6 a.m. - 2 p.m.
Afternoon Shift: 2 p.m. - 10 p.m.

ROAD SUPERVISION

When feasible shift sergeants shall conduct road supervision to supervise and monitor the activities of day and afternoon patrols.

SCHEDULED OVERTIME

Scheduled overtime during holiday periods will be proportionately distributed between motorcycle and normal patrols. (i.e. eight patrols needed, five would be normal patrols and three would be motorcycle patrols).

EVALUATION

Duing the course of this project mechanisms will be in place to track day and afternoon:

- Patrol activity
- Speeding violations
- Patrol mileage & Fuel Costs
- Vehicle Maintenance & Repair Costs
- Accident & Injury data
- Motor Officer number of hours spent patrolling in patrol cars
- Patrol Response Times
- News Media contacts and Request for Special Events

At the conclusion of this project the following individuals will be asked to complete a brief questionnaire to assist in evaluation:

- Motor officers
- Troopers assigned to day and afternoon patrols
- Sergeants assigned to day and afternoon shifts
- Day and afternoon Platoon Commanders
- Day / afternoon sergeants at Metro
- Day / afternoon dispatchers at Metro (29 console)

Motor Officers will be required to complete evaluations on each model of motorcycle on or about July 16 and September 1, 1993.

PAIRED BEAT ASSIGNMENTS

During the course of this project, motor officers will be assigned to patrol beats in pairs. While working within the same area, they will conduct separate patrols and only work together (as a team) during rush hour, or when calls for assistance are made.

If a second motorcycle isn't available to make a pair, the lone motorcycle will be assigned to a beat with a patrol car and will work rush hour within close proximity of that patrol car.

Motor Officers shall not be assigned single motor beats or be dispatched outside a paired beat unless an emergency exist.

INCLEMENT WEATHER

During inclement weather (storms, rain, sleet, hail, lightning, thunder storms, high winds etc.) it shall be mandatory to discontinue patrols and return motorcycles to storage.

Officers forced to discontinue patrols because of weather, shall acquire patrol cars, along with the proper uniform hat, and continue patrols as soon as possible.

In cases involving light or scattered showers, joint officer and supervisory discretion is allowed.

HEALTH RESTRICTION

If motor officers suffer any health condition which may affect their coordination or balance, they will be assigned other patrol duties. Excessive incidents of this nature may be considered "just cause" for removal from motorcycle duty.

It shall be the responsibility of each motor officer to keep supervisors apprised of their fitness to function as motor officers. If motor officers sustain injuries that may affect their ability to effectively operate a motorcycle, immediate notification must be made to a supervisor.

HOURS OF DARKNESS

During the course of this project, motor officer patrols shall only be conducted during the day and afternoon shifts. It shall be mandatory that motorcycles not be utilized during hours of darkness.

Any night use of motorcycles must be pre-approved by the Post Commander or Assistant Post Commander.

REQUESTING BACKUP ASSISTANCE

Since motorcycles provide reduced visibility and lack the capability of transporting passengers, or second officers on patrol, a number of police functions will require assistance.

PRISONER TRANSPORT

Whenever a motor officer effects an arrest, a request shall be made for a patrol car backup, to transport and lodge the prisoner. The responding patrol car shall only be responsible to transport the prisoner to his/her place of lodging. Any paper work or further investigation shall be the responsibility

of the motor officer. Dumping of task upon patrol cars shall not be tolerated or condoned. Motor officers should follow prisoners to lodging to assure their responsibility is met.

SERIOUS TRAFFIC ACCIDENTS

When responding to serious accidents, motor officers should consider requesting patrol car backups to assist with traffic control and investigation. It is generally felt that a patrol car may provide added visibility and a more pronounced police presence.

PURSUIT CHASES

When a motor officer is involved in a chase, a patrol car backup shall be requested immediately. Upon arrival of the patrol car, the motor officer shall terminate pursuit. (See section on pursuit chases to ascertain allowable circumstances for chases)

VEHICLE SEARCHES

When necessary to search vehicles with one or more occupants, a backup in the form of a second motor officer or a patrol car shall be requested.

HIGH RISK STOPS

If at all possible, motor officers should have assistance present prior to making high risk stops. Emphasis: A motor officer is at a definite disadvantage. Try to obtain help from a patrol car.

Do not park as close to the rear of the suspect vehicle as you would on other enforcement stops.

Park in a diagonal position as this may provide some protection.

Use light poles, parked cars, etc., for protection.

If a car unit has responded, park behind it so it may provide protection.

TRAFFIC ENFORCEMENT

Motor officers are expected to enforce traffic and criminal law just as normal patrols. However, since motorcycles do not provide the protection of a car, some added consideration must be given to timing and location of traffic stops. Officer safety should be a major concern during all enforcement efforts.

Motorcycles may be equipped with speed measuring devices for speed enforcement, however only stationary measurement will be utilized. Officers are encouraged to create safe innovative techniques to enhance the effectiveness of patrols.

SPEED RESTRICTION

Motor officers shall obey posted speed limits and use do care and caution while pursuing violators.

Excessive speed, "hot dogging" and horse play will not be tolerated or allowed.

Motor officers are encouraged to maintain a high level of self discipline and respect for the machines they operate.

Emphasis: Police motorcycles are not high speed enforcement vehicles.

PURSUIT CHASES

PROPERTY FELONIES (Crimes against property), MISDEMEANOR, CIVIL INFRACTIONS AND UNKNOWN OFFENSES

Pursuit chases for Property related Felonies, misdemeanor, civil infraction and unknown offenses are prohibited. In the event a motorist flees, motor officers shall convey location, vehicle information, direction of travel and the offense (if known) to Metro Dispatch and terminate pursuit. Motor officers are prohibited from leaving the freeway to pursue fleeing motorist for any of the above offenses.

VIOLENT FELONIES (Crimes against persons)

In cases involving known serious felonies, officer discretion is allowed, however factors such as weather, road conditions, traffic congestion, pedestrian and motorist safety and the identity of the perpetrator shall be determining factors in whether to continue or terminate pursuit.

If circumstances are such that pursuit is justified, motor officers shall request a patrol car backup as soon as possible, and disengage once it responds. Motor officers will also terminate pursuit when speeds exceed 90 mph.

Motor officers are prohibited from responding to any chase as a secondary pursuit vehicle.

As with any chase a supervisor shall always have the authority to terminate pursuit whenever he or she deems it necessary.

Emphasis: A motorcycle is a poor pursuit vehicle, it does not offer the protection or visibility of a patrol car.

SPECIAL PROGRAMS

All request for use of motorcycles during special events (parades, motorcades, exhibits, etc.) shall be approved by the Post Commander or Assistant Post Commander.

Though the general intent is to keep motorcycles on patrol as much as possible, due consideration will be given requests for use during special events. Departmental members should be careful however, not to solicit such requests.

RIDING TECHNIQUES

General

(1) **Highbeam** headlights shall be illuminated at all times during operation. This will make the motorcycle more visible during daylight and provide the rider with greater safety against unsafe lane changes, right-of-way violators, etc. Lowbeam headlights shall be activated when running with police emergency lights activated.

(2) Never ride into a space you cannot see your way out of.

(3) Never override your ability or the limits of your motorcycle.

(4) As you gain experience and proficiency, you must guard against the tendency to become overconfident.

(5) Always wear safety glasses and leather gloves while riding.

(6) If the motorcycle is stopped, and for any reason it starts to fall over, do not attempt to catch it when it is off center. It is better to sustain minor damage to the motorcycle than personal injury.

(7) If high speed wobbles are experienced in the front suspension, back off the throttle and loosen your grip on the handlebar. It is important not to tense up and tighten your grip, as this will transmit the wobble to the rear suspension. Allow the motorcycle to decrease speed until the wobble is eliminated.

When wobbles are experienced, motorcycles shall be taken out of service until the suspension is inspected by an authorized Harley Davidson Dealership.

SURFACE

(1) Constantly scan the roadway for grease, water, oil, sand, or other debris.

(2) Avoid center of traffic lanes at intersections and left turn pockets.

(a) Oil accumulations and water.
(b) No avenue of escape
(c) Possibility of being rear ended

(3) Do not travel in the center of a lane. Always travel in the most heavily traveled portion of the traffic lane where the vehicle tires travel.

(4) Do not unnecessarily ride on lane divider lines because you have less coefficient of friction.

(5) Anticipate possibilities of changing road surface conditions due to weather and/or construction.

(6) Avoid parking where vehicles have left deposits of oil and grease, or where there is lose material on the road surface.

(7) If you encounter an object on the surface that cannot be avoided, such as a hub cap, tire segment, board, etc., straighten the motorcycle up and attempt to go over it at a 90 degree angle.

(8) Should striking a small animal be inevitable, bring the motorcycle to a straight up position. Do not brake or swerve.

BRAKING

(1) Remember, a car can generally out stop a motorcycle.

(2) When following, do not center on the rear of the vehicle, ride to the left or right side.

(3) Learn to synchronize the use of both brakes together to gain maximum stopping efficiency.

(4) Learn to use clutch and engine compression to assist your stopping ability.

(5) Do not brake excessively while making turning movements.

(6) In case of a flat tire, decelerate gradually and avoid heavy braking.

(7) When braking heavily, always keep the front wheel

pointed in the original direction of travel.

(8) Always follow vehicles at a safe distance. There are drivers who instinctively hit their brakes upon merely observing you in the rear or side mirrors, or when you display the red light or sound the siren.

STOPPING IN TRAFFIC

(1) When coming to a stop behind other vehicles, always position yourself at a safe distance favoring the right or left side of the lane.

(2) Do not stop directly behind a vehicle; allow yourself adequate space to quickly maneuver if necessary.

(3) Be aware of traffic conditions to the rear when reducing speed and/or stopping.

INTERSECTIONS

(1) Watch for vehicles about to make or making a left turn.

(2) Do not hesitate to give up your right-of-way.

(3) Always proceed into an intersection with reasonable caution.

(4) Gear down before entering intersections if a potential hazard is present.

(5) When a traffic signal changes to GREEN for you, make sure before entering the intersection that it is clear and all approaching vehicles on cross streets are stopping.

(6) Do not pass vehicles between curb lane and curb, as vehicles may pull over to park, turn at an intersection or into a driveway or alley.

(7) Do not ride close to parked vehicles.

*Emphasis: **Most motorcycle accidents occur at intersections, and most occur when the other driver violates the motorcycles right-of-way.**

LANE CHANGES and PASSING

(1) Never change lanes or pass vehicles without first glancing over your shoulders into your blind spot to determine if the area is free of traffic.

(a) Do not rely solely on your mirrors.

(b) Use peripheral vision while riding, do not divert your total attention.

(2) When passing a vehicle, watch for the telltale signs of a driver who is about to change lanes or turn, such as a head movement to the right, to the left, or toward his/her rear view mirrors.

(3) Anticipate unexpected movement of vehicles and pedestrians.

CURVES

(1) Slow down prior to entering curves and turns.

(2) Do not overbrake the rear wheel while leaning into a turn or at any time other than when in an upright position.

(3) Enter curves on the outside, staying within the traffic lane and move toward the inside to allow room for correction if speed is too fast or radius is misjudged. When applying this technique, accurate surface appraisal is essential.

(4) When traveling unfamiliar roadways, operate at lower speeds.

INTERSTATES

(1) Watch surface and radius of off-ramps and connector roads; avoid the center of the lanes.

(2) Once committed to an off-ramp or connector road, devote your full attention. Remember look in the direction you want to go.

(3) Do not look back to merge with interstate traffic if following a vehicle down an on-ramp connector road.

(4) Regardless of the line followed in a curve, turn, connector road, or off-ramp, the rider should not ride at a speed greater than that which allows an accurate assessment of the pavement.

(5) Conditions may change quickly on both on and off-ramps. Do not become overconfident.

(6) Do not pass on center dividers unless it is absolutely

necessary. Red lights and siren may be necessary.

(7) When passing on the shoulder or center divider, great care and a reduction of speed must be exercised.

(8) When traveling in the right lane, be alert for vehicles driving towards the off-ramp.

(9) If splitting of traffic is necessary, split between lanes #1 and #2, less lane changes.

(10) Avoid abrupt lane changes and erratic direction changes at high speed.

(11) Be ready for vehicles to change lanes and take evasive action as traffic suddenly slows down.

SPLITTING TRAFFIC

(1) NEVER SPLIT LANES UNLESS ABSOLUTELY NECESSARY.

(2) **Maximum speed above prevailing speed of traffic you are splitting - 10 mph.**

(3) **Split when vehicles are side by side.**

(4) **Watch for gaps that a vehicle could move into as you are splitting.**

(5) **If traffic is stopped watch for doors opening. Be cautious of extended mirrors or projecting loads.**

(6) **Watch for debris on the pavement along lane designation lines.**

(7) **Check the side mirror of vehicles to your right to determine if drivers are looking and appear aware of your approach.**

(8) **Use horn if necessary; never use red light or siren while splitting.**

VIOLATOR STOPS

(1) Use caution when making violator stops. Be prepared for the possibility of sudden turning movements and/or stops.

(2) Be aware, violators may slow and/or stop in a traffic lane when you signal them to pull over. If this occurs, pass the violator and attempt to get him/her moving with traffic until more precise control is gained.

(3) Do not stop in front of a violator unless absolutely unavoidable.

(4) If a stop is made in front of a violator, keep the engine running with the motorcycle in gear, observe the violator's vehicle in your mirror or over your shoulder until you are sure he/she is coming to a stop. This way, you will be able to move away if the violator should fail to stop behind you.

(5) **Dismount and remount from the right side of motorcycle. This provides safety from passing traffic and permits right side approach to the violators vehicle.**

(Revised copy, 5-7-93)

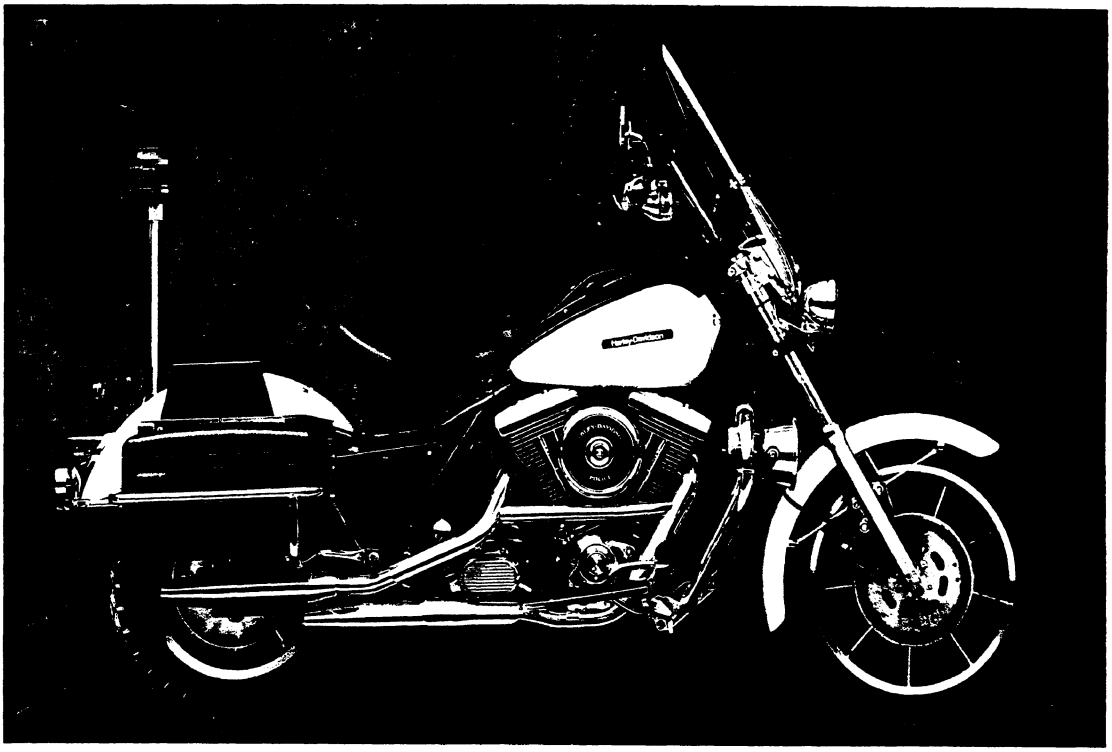
MOTORCYCLE ASSIGNMENTS

UNIT	Assignment 1st 45 days	Assignment 2nd 45 days
FLHTP - 2990	Pengelly	Dilley
FLHTP - 2991	Thompson	McQueen
FLHTP - 2992	Cribbs	Hall & Melvin
FLHTP - 2993	Barrigar	Wiegand
FLHTP - 2994	Harris	Galbreath
FXRP - 2995	Galbreath	Pengelly
FXRP - 2996	Melvin	Harris
FXRP - 2997	Hall	Cribbs
FXRP - 2998	McQueen & Dilley	Thompson
FXRP - 2999	Wiegand	Barrigar

Appendix B

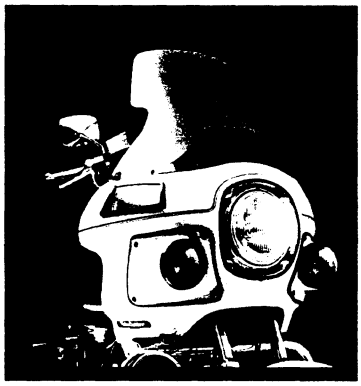
Description of Motorcycles Used in Project

THE HARLEY-DAVIDSON® FXRP PURSUIT GLIDE™



THE HARLEY-DAVIDSON® FXRP PURSUIT GLIDE™ (WINDSHIELD MODEL).

A TURN OF THE WRIST AND THE FXRP PURSUIT GLIDE™ JUMPS TO LIFE, PROVIDING IMMEDIATE REACTION ANY TIME DUTY CALLS. ITS RELIABLE V2® EVOLUTION® ENGINE AND DURABLE CHASSIS ARE PERFECTLY SUITED TO THE RIGORS OF POLICE WORK. AND WITH ITS CLASSIC LOOK AND DISTINCTIVE SOUND, IT CARRIES THE JOB OFF IN HIGH STYLE.



FRAME-MOUNTED FAIRING OPTION FEATURED ON THE FXRP PURSUIT GLIDE™.

PERFORMANCE

- AIR COOLED, 4 STROKE V2® EVOLUTION® ENGINE. 80 CUBIC INCHES OF POLICE PERFORMANCE AND POWER
- KEVLAR® REINFORCED BELT FINAL DRIVE MAINTAINS MAXIMUM EFFICIENCY AND BELT LIFE WITH MINIMAL ADJUSTMENT
- AGILE, EASILY MANEUVERABLE IN ALL TRAFFIC SITUATIONS
- HIGH PERFORMANCE CLUTCH PERFORMS EQUALLY WELL IN URBAN PATROL AND HIGHWAY DUTY

COMFORT

- SOLO-SUSPENDED SEAT FOR ALL DAY COMFORT
- INDIVIDUALLY ADJUSTABLE CLUTCH AND BRAKE LEVERS
- WIND TUNNEL TESTED, FRAME MOUNTED FAIRING AVAILABLE FOR REDUCED RIDER FATIGUE
- FLOORBOARDS FOR ADDED COMFORT

DEPENDABILITY

- DUAL-DISC FRONT BRAKES PROVIDE EXCELLENT STOPPING POWER
- AVAILABILITY OF SPECIAL EXTRA LOUD AIR HORN HOOK-UP TO SIREN/PUBLIC ADDRESS SYSTEM*
- VARIETY OF HIGH VISIBILITY STROBE PACKAGES AVAILABLE*
- CLUTCH INTERLOCK TO PREVENT STARTING IN GEAR

VALUE

- BUILT AND DESIGNED TO PROVIDE YEARS OF RELIABLE SERVICE
- LOW MAINTENANCE COSTS
- HIGH RESALE VALUE
- 55 MPG HIGHWAY AND 43 MPG CITY**

*AVAILABLE THROUGH YOUR DEALER

**BASED ON OUR OWN TESTS. ACTUAL MILEAGE MAY VARY DEPENDING ON RIDING HABITS, WEATHER CONDITIONS AND TRIP LENGTH.

WE CARE ABOUT YOU. BE SURE TO RIDE SAFELY AND WITHIN THE LIMITS OF YOUR ABILITIES. RIDE WITH YOUR HEADLIGHT ON AND WATCH OUT FOR THE OTHER PERSON. ALWAYS WEAR A HELMET, PROPER EYEWEAR AND APPROPRIATE CLOTHING. NEVER RIDE WHILE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. KNOW YOUR OWN HARLEY® AND READ AND UNDERSTAND YOUR OWNER'S MANUAL FROM COVER TO COVER. TO CONTACT THE HARLEY-DAVIDSON® DEALER IN YOUR AREA CALL TOLL FREE 1-800-443-2153 IN THE U.S.A.

PRINTED IN THE U.S.A.

HARLEY-DAVIDSON® POLICE MOTORCYCLES

FXRP PURSUIT GLIDE™ SPECIFICATIONS

Engine Type	1340cc/80 CID Evolution® OHV Vibration Isolated V-Twin *
Bore and Stroke	3.498 x 4.250"
Carburetion	40MM
Compression Ratio	8.5:1
Electrical	12 Volt. 19 AMP Hour Battery
Ignition System	Coil Electronic V-Fire III
Torque	80.4 FT./Lbs. @ 4000 RPM
Clutch	Wet - Multi-Plate
Clutch Starter Lockout	Require Clutch Disengaged for Starter Motor Operation
Deluxe Chrome Group (Powertrain)	Designed for Low Maintenance; Chrome Rocker Boxes, Timer Cover, Outer Primary Housings, Transmission Covers, w/Black Wrinkle Paint Finish on Engine
Drive Train	Final Belt Drive. Gates Kevlar® Reinforced Belt
Exhaust System	Staggered Shorty Duals
Transmission	5 Forward Speeds, Constant Mesh
Front Tire	MM 90 x 19 Tubeless Blackwall - Dunlop®; double strength sidewalls
Rear Tire	MT 90 x 16 Tubeless Blackwall - Dunlop®; double strength sidewalls
Fender Extender	Rear Inner Fender Extender to Reduce Water Splash
Frame	Steel Tube, Heavy Duty
Fuel Tank Capacity	4.2 U.S. Gallons
Headlamp	Quartz Halogen
Oil Tank Capacity	3.5 U.S. Quarts
Overall Height	59.0 Inches
Overall Length	94.2 Inches
Saddle Height	30.0 Iinches
Wheel Base	64.7 Inches
Wheels	Cast
Weight, Dry	630 Pounds
Front Suspension	Telescopic Fork (39MM)
Rear Suspension	5 Position Adjustable Shocks
Lean Angle (Per SAE J1169)	Right 36° Left 36°
Floorboards	Standard
Four Way Flashers	Standard
Heel-Toe Shifter	Standard
Internal Breather System	Standard
Pursuit Lights	Standard, Front (1 red, 1 blue)
Sight Gauge on Brake Master Cylinders	Standard
Sight Gauge on Oil Tank	Standard
Solo Spring Suspended Seat	Standard - Contoured w/Quick Release Mechanism
Speedometer/Tachometer	Standard - Police w/Trip meter
Fuel Gauge	Standard
Low Effort Hand Levers	Standard
Radio Carrier	Standard
Engine Guard, Chrome	Standard, Front & Rear
Turn Signals, Self-cancelling	Standard
Indicator Lights	Standard
Paint	Standard - Birch White

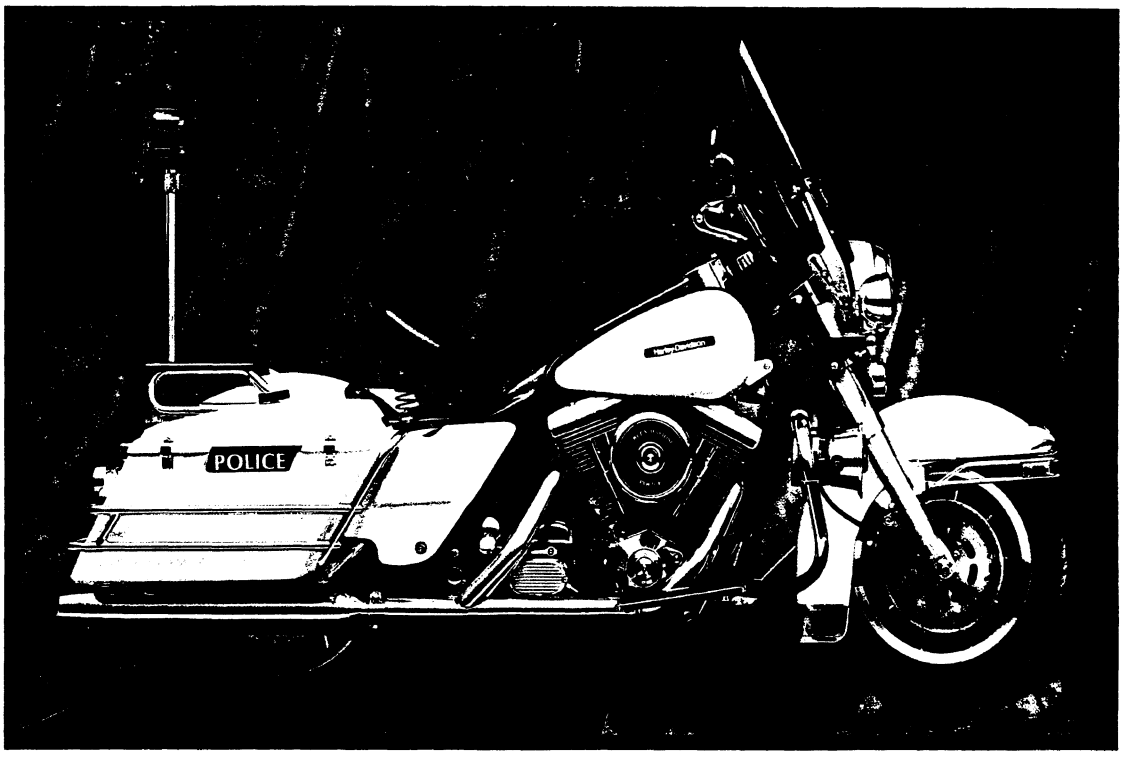
OPTIONS**

Electronic Siren With Air Horn • Microphone Kit • Self-Contained Rear Strobe Lamp • Complete Strobe Package • Special Paint (5 unit minimum)

*Tri-mount chasis utilizes maintenance-free, automotive elastomer engine mounts. The mounts isolate the entire rear swing arm, drive train and engine from the rest of the vehicle. Road shock and engine feedback are dampened.

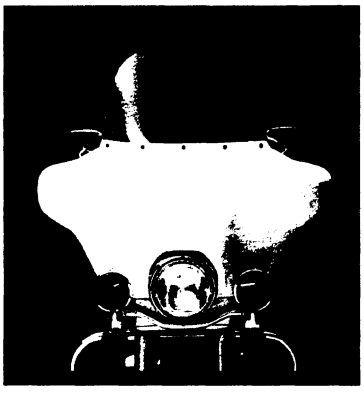
**Available at additional cost. See your dealer for details.

THE HARLEY-DAVIDSON® FLHTP ELECTRA GLIDE®



THE HARLEY-DAVIDSON® FLHTP ELECTRA GLIDE® (WINDSHIELD MODEL).

THE ULTIMATE POLICE MOTORCYCLE. THE LEGENDARY FLHTP ELECTRA GLIDE.® IT'S THE LATEST EVOLUTION IN OUR TOP-OF-THE LINE POLICE MOTORCYCLE, WITH THE DISTINCTIVE FORM AND TIME-PROVEN FUNCTION YOU EXPECT. POWERED BY 80 CUBIC INCHES OF MILWAUKEE'S FINEST, IT CREATES A PRESENCE UNEQUALED BY ANY OTHER MACHINE.



FORK-MOUNTED FAIRING OPTION FEATURED ON THE FLHTP ELECTRA GLIDE®.

PERFORMANCE

- AIR-COOLED, FOUR STROKE V2® EVOLUTION® ENGINE SUITED TO THE RIGORS OF POLICE WORK
- KEVLAR® REINFORCED BELT FINAL DRIVE MAINTAINS MAXIMUM EFFICIENCY AND BELT LIFE WITH MINIMAL ADJUSTMENT
- HEAVY-DUTY, AIR-ADJUSTABLE ANTI-DIVE FRONT SUSPENSION AND AIR-ADJUSTABLE REAR SUSPENSION
- NEW, SPACIOUS SADDLEBAGS ARE LOCKABLE AND HINGED. SPECIAL DESIGNED QUICK-FASTENER MAKES FOR EASY OPENING AND CLOSING

COMFORT

- ENGINE-ISOLATING TRI-MOUNT CHASSIS TO INTERCEPT ENGINE VIBRATION AND REDUCE RIDER FATIGUE
- SOLO-SUSPENDED SEAT FOR LONG HOURS ON THE ROAD
- INDIVIDUALLY ADJUSTABLE CLUTCH AND BRAKE LEVERS
- THREE-POINT ADJUSTABLE FLOORBOARDS FOR MAXIMUM RIDER COMFORT

DEPENDABILITY

- MASSIVE 11.5 INCH DUAL FRONT DISC BRAKE ROTORS PROVIDE EXCELLENT STOPPING POWER
- AVAILABILITY OF SPECIAL EXTRA LOUD AIR HORN HOOK-UP TO SIREN/PUBLIC ADDRESS SYSTEM*
- VARIETY OF HIGH VISIBILITY STROBE PACKAGES AVAILABLE*
- CLUTCH INTERLOCK TO PREVENT STARTING IN GEAR

VALUE

- BUILT AND DESIGNED TO PROVIDE YEARS OF RELIABLE SERVICE
- LOW MAINTENANCE COSTS
- HIGH RESALE VALUE
- 50 MPG HIGHWAY AND 39 MPG CITY**

*AVAILABLE THROUGH YOUR DEALER

**BASED ON OUR OWN TESTS. ACTUAL MILEAGE MAY VARY DEPENDING ON RIDING HABITS, WEATHER CONDITIONS AND TRIP LENGTH.

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PRINTED IN THE U.S.A.

HARLEY-DAVIDSON® POLICE MOTORCYCLES

FLHTP ELECTRA GLIDE® SPECIFICATIONS

Engine Type	1340cc/80 CID Evolution® OHV Vibration Isolated V-Twin*
Bore and Stroke	3.498 x 4.250"
Carburetion	40 MM
Compression Ratio	8.5:1
Electrical	12 Volt, 20 AMP Hour Battery
Ignition System	Coil Electronic V-Fire III Exclusive Design Permits Operation With or Without Key
Torque	82.5 Ft./Lbs. @ 4000 RPM
Clutch	Wet - Multi-Plate
Clutch Starter Lockout	Require Clutch Disengaged for Starter Motor Operation
Deluxe Chrome Group (Powertrain)	Designed for Low Maintenance: Chrome Rocker Boxes, Timer Cover, Outer Primary Housings, Transmission Covers, w/Black Wrinkle Paint Finish on Engine
Drive Train	Final Belt Drive, Gates Kevlar® Reinforced Belt
Exhaust System	Crossover Dual Exhaust
Transmission	5 Forward Speeds, Constant Mesh
Front Tire	MM 90 x 16T Tubeless Blackwall - Dunlop®
Rear Tire	MM 90 x 16T Tubeless Blackwall - Dunlop®
Frame	Steel Tube, Heavy Duty Double Loop, Fully Gussetted
Fuel Tank Capacity	5 U.S. Gallons, w/Reserve - Locking Gas Cover
Headlamp	Quartz Halogen
Oil Tank Capacity	4.0 U.S. Quarts
Overall Height	61.0 Inches
Overall Length	94.2 Inches
Ground Clearance	5.12 Inches
Saddle Height	31.0 Inches
Wheel Base	62.9 Inches
Wheels	16 Spoke Cast
Weight, Dry	712 Pounds
Front Suspension	Telescopic Fork, Air Suspension w/Air Anti-Dive System
Rear Suspension	Air Adjustable Rear Shocks
Lean Angle (Per SAE J1169)	Right 35° Left 29.5°
Floorboards	Standard
Four Way Flashers	Standard
Heel-Toe Shifter	Standard
Internal Breather System	Standard
Pursuit Lights	Standard, Front (1 red, 1 blue)
Sight Gauge on Brake Master Cylinders	Standard
One Key Operation	Standard
Solo Suspended Seat	Standard - Contoured, w/Release Mechanism
Speedometer/Tachometer	Standard - Police w/Trip meter
Fuel Gauge	Standard
Low Effort Hand Levers	Standard
Radio Carrier	Standard
Engine Guard, Chrome	Standard, Front & Rear
Indicator Lights	Standard
Paint	Standard - Birch White

OPTIONS**

Electronic Siren With Air Horn • Microphone Kit • Self-Contained Rear Strobe Lamp • Complete Strobe Package • Special Paint (5 unit minimum)

*Tri-mount chasis utilizes maintenance-free, automotive elastomer engine mounts. The mounts isolate the entire rear swing arm, drive train and engine from the rest of the vehicle. Road shock and engine feedback are dampened.

**Available at additional cost. See your dealer for details.

Appendix C

Description of Uniform Services Division Daily Report (UD-2)

ENCLOSURE (2)

Michigan Department of State Police

UNIFORM SERVICES DIVISION DAILY REPORT

APPENDIX D.

OFFICIAL ORDER NO. 9 Viewed _____ Entered _____

NAME	RANK	BADGE NO.	WORK SITE	ASSIGNMENT	SHIFT WORKED	DATE

PASS	Reg. Hrs.	OT	S/D	S/D OT	Annual	Pers. Sick	Other Sick	Def. Used	Non-Pay	Union	Comp. Used	Comp. Earned	Stand-By	Other		Signature of Supervisor
B	9 B	10 C	11 D	12 E	13 F	14 G	15 J	16 K	17 L	18 M	19 N	20 P	21 SB	22 X	23	

OBLIGATED TIME

Field Services Bureau

	D	A	T
3	27	28	29
3	40	41	42

Office of the Director

	D	A	T
1	53	54	55

State Services Bureau

	D	A	T
2	71	72	73

Technical Services Bureau

	D	A	T
4	87	88	89

Administrative Services Bureau

	D	A	T
5	102	103	104

Additional Coding Areas

B	D	A	T	
120	121	122	123	
129	130	131	132	OT Hrs.

TOTAL OBLIGATED TIME 138

ACTIVITY DURING OBLIGATED TIME

Incidents	146
Criminal Arrests	152
Traffic Arrests	158
Obligated Mileage	163

MEALS AND LODGING

B	L	D	LG
175	176	177	178

UNOBLIGATED INPUTS - HOURS

FREEWAY		TRUNKLINE		COUNTY		24___PATROL	
Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
30	31	32	33	34	35	36	37

OT Hrs.

CRIMINAL INCIDENTS

45		State	0100-0300	46	47
48		Against Persons	0900-1400	49	50
56		Property (Part I)	2000-2400	57	58
61		Property (Part II)	2500-2900	62	63
66		Morals/Decency	3500-4200	67	68
74		Public Order	4800-8900	75	76
79		Criminal Traffic	5400-1 & 3	80	81
84		O.U.I.L.	5400-2	85	86

NONCRIMINAL INCIDENTS

92		Juvenile	9100	93	94
97		Civil Custodies	9200	98	99
105		Traffic Accidents	9300-1,2	106	107
110		Traffic	9300-3 - 9	111	112
115		Fire	9500-1,2	116	117
124		Accidents, All Other	9700	125	126
133		Inspect/Investigation	9800	134	135
139		Miscellaneous Incident	9900	140	141

NONINCIDENT

147		Report Writing		148	149
153		District Court	[154]	[155] 156	157
159		Circuit Court	[160]	161	162
164		Desk Assignment		165	166
169		Operational Support	[170]	171	172
		TOTAL UNOBLIGATED HOURS		179	180

UNOBLIGATED OUTPUTS - ACTIVITIE

TRAFFIC ARRESTS	Jr.	Sr.
Hazardous Traffic	25	26
Nonhazardous Traffic	38	39
O.U.I.L.	43	44
TOTAL TRAFFIC ARRESTS		

ARRESTS AND COUNTS		
Felons Arrested	51	52
Misdemeanants Arrested	59	60
TOTAL PERSONS ARRESTED		
Patrol Counts	64	65
Investigative Counts	69	70
TOTAL ARREST COUNTS		
Fugitives Arrested	77	78
Warrants/Wants Satisfied	82	83

PATROL ACTIVITY		
Cars Assisted	90	91
Cars Investigated	95	96
Vehicles Inspected	100	101
Property Inspections	108	109
Liquor Inspections	113	114
Verbal Warnings	118	119
Motor Vehicle Accidents	127	128
MV Acc. Closed By Haz. Arr.	136	137
A -	142	143
Passenger Restraint Cits.	144	145
Passenger Restraint V.W.'s.	150	151

UNOBLIGATED INCIDENTS		
Original, Dispatched	167	168
Original, Patrol	173	174
TOTAL ORIGINAL		
Supplementary	181	182

UNOBLIGATED MILEAGE

Traffic		Other		Freeway Patrol		Trunkline Patrol		County Road Patrol		Total Patrol Mileage	
Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.	Jr.	Sr.
183	184	185	186	187	188	189	190	191	192	193	194

DIRECTED ACTIVITY INFORMATION (SENIOR OFFICER ACTIVITY)

Code	Car Hours	Activities	Code	Car Hours	Activities	Code	Car Hours	Activities
A	197	198	B	199	200	C	201	202
A1	205	206	B1	207	208	C1	209	210
	213	214		215	216		217	218
	221	222		223	224		225	226
	229	230		231	232		233	234
	237	238		239	240		241	242
	245	246		247	248		249	250
V	253	254	W	255	256	X	257	258
Y	261	262	Z	263	264			

LOCAL USE

	Jr.	Sr.
1-	195	196
2-	203	204
3-	211	212
4-	219	220
5-	227	228
6-	235	236
7-	243	244
8-	251	252
9-	259	260
10-	265	266

OFFICER'S SIGNATURE

Michigan Department of State Police

UNIFORM SERVICES DIVISION DAILY REPORT

OFFICER(S)

OTHER EQUIPMENT

RADAR VERIFICATION MODEL ________

ER or NR NO. ________

Speedometer Calibration Date ________

	Out	In
Time	____	____
Display Segment Check	☐	☐
Internal Verification	☐	☐
Range Test	☐	☐
Audio Test	☐	☐
Patrol Speed Test	☐	☐

CAR NO. ________

MILEAGE ________

In ________

Out ________

TOTAL MILES ________

GAS ______ OIL ______

PATROL AREA

GUN NO.

CAMERA NO.

TIME	ACTIVITY	CODE	LOCATION	DESCRIPTION OF ACTIVITY

UNIFORM SERVICES DIVISION DAILY REPORT, UD-2

1. GENERAL REPORT INFORMATION AND CRITERIA

A. Each Uniform Services Division member, enlisted and civilian, shall legibly complete a Uniform Services Division Daily Report using a ball point pen during or upon the completion of each day's work. It is not necessary to submit a daily on days an employee does not work. An employee who works any time on an unscheduled day, however, must submit a daily showing the hours worked.

B. To indicate the inputs and outputs of two officers working together during unobligated time, two columns have been provided. The column marked "SR" shall be used by the senior officer as determined by rank and service in rank, and the column marked "JR" shall be used by the junior officer. An individual daily reflecting each officer's activity shall be submitted. For every tour of duty each officer shall accurately and factually record all activities on the UD-2 form. An officer may not record senior or junior activity unless he/she has taken an active role in the generating of the activity and the actions are so noted on the incident report and the individual officer's daily. When an officer who has taken a significant role in an investigation is not present during the offender's arrest, he/she may record a junior arrest with prior approval of the post commander or designee. The officer's actions must constitute an essential contribution to the generation of the arrest and be noted on the incident report and the individual officer's daily.

C. An officer on special detail shall prepare and submit a UD-2 form to the squad leader at the completion of each day's tour of duty. The reports shall be prepared in exactly the same manner as when on routine duty, except that the name of the detail shall be entered in the space provided for the assignment.

2. COMPLETE INSTRUCTIONS

A. All appropriate areas shall be completed. Specific completion directions are given below for some areas.

(1) Name - Last name, first and middle initial.

(2) Rank - Troopers enter "1," sergeants "3," lieutenants "6," other enlisted above the rank of lieutenant "7," and civilians "9."

(3) Work Site - Include the name and number for post or team.

(4) Assignment - Use this area to indicate the beat designation (for example, "25A"), selective enforcement ("STEP"), CARE ("CARE"), etc. A unique mnemonic will be issued by the Operations Division for mobilizations.

(5) Shift - Shifts will be designated by the following numbers:

1 - Midnight Shift
2 - Day Shift
3 - Afternoon Shift
0 - Afternoon/Midnight Overlapping Shift
(7 p.m. - 3 a.m., 8 p.m. - 4 a.m., 9 p.m. - 5 a.m. only)

(6) Date - Month, day and year.

(7) Time Accounting Hours - Hours shall be entered in the proper boxes for time accounting purposes. See Official Order No. 60 for definitions of the timekeeping codes.

a. Holiday hours shall be entered in the "B" box as "H-8." If the holiday is worked, also enter the hours in the overtime or compensatory time boxes, as appropriate.

b. Union activity hours must be entered in the "M" box. In order to receive payment for the hours, you must also enter them in another box, such as "B" or "D."

c. Compensatory time earned must be entered in the "P" box. Record the number of hours worked in the space provided.

d. The "X" box shall be used for all hours not accounted for in other boxes; for example:

B*	Administrative leave hours
BM	Military leave hours

(8) Stand by Time (SB) - Carry hours to be paid (as "B" time) not the number of hours worked. Give an explanation in the "Description of Activity" area on the reverse side.

(9) Obligated Time - Refers to those work hours which are committed by state law or departmental policy; i.e., Fire Marshal officers, post commanders, desk sergeants, detectives, Community Services officers, etc., and all civilian personnel hours. For completion of this area use the codes listed below:

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	B Bureau	D Division	A Activity	T Time
1 - OFFICE OF THE DIRECTOR				
Director	1	1	-	# hrs.
Interdepartmental Affairs	1	2	-	# hrs.
O.H.S.P. Div.	1	4	-	# hrs.
Behavioral Science Sect.	1	5	-	# hrs.
Executive Div.	1	6	-	# hrs.
2 - STATE SERVICES BUREAU				
Fire Marshal Div.	2	4	-	# hrs.
Training Div.	2	10	-	# hrs.
M.L.E.O.T.C. Div.	2	12	-	# hrs.
Emergency Mgt. Div. (Emer. Mgt. Dist. Coord.)	2	7	-	# hrs.
3 - FIELD SERVICES BUREAU				
Uniform Services Div.				
Administration	3	3	1	# hrs.
Supervision	3	3	2	# hrs.
Operational	3	3	3	# hrs.
(Mobilization)	3	3	3	# hrs.
(Security Officer-civ.)	3	3	3	# hrs.
Clerical	3	3	4	# hrs.
Underwater Recovery (Diver on Training or assigned dives)	3	3	5	# hrs.
Canine (dog handler/ partner on training day, dog calls, etc.)	3	3	6	# hrs.
Emergency Support Team (on training or EST assignments)	3	3	7	# hrs.
Community Services (P.C.S.O.)	3	3	8	# hrs.
Training Received/ Given	3	3	9	# hrs.
Janitorial (either enlisted or civilian)	3	3	10	# hrs.
Vehicle Inspection	3	3	30	# hrs.

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	B Bureau	D Division	A Activity	T Time
3 - FIELD SERVICES BUREAU (Continued)				
Operations Division				
Administration	3	4	1	# hrs.
Supervision	3	4	2	# hrs.
Operational	3	4	3	# hrs.
Radio Operator - civ.)	3	4	3	# hrs.
Clerical	3	4	4	# hrs.
Traffic Services Division				
Administration	3	5	1	# hrs.
(lieutenant)	3	5	1	# hrs.
Supervision	3	5	2	# hrs.
Operational (sergeant, running traffic surveys, repairing Breathalyzers, giving traffic-related programs)	3	5	3	# hrs.
Clerical	3	5	4	# hrs.
Investigative Services				
Administration	3	6	1	# hrs.
Supervision	3	6	2	# hrs.
Operational	3	6	3	# hrs.
Clerical	3	6	4	# hrs.
Motor Carrier Division				
Administration	3	8	1	# hrs.
Supervision	3	8	2	# hrs.
Operational	3	8	3	# hrs.
Clerical	3	8	4	# hrs.
4 - TECHNICAL SERVICES BUREAU				
C.J.D.C. Division	4	2	-	# hrs.
Communications Division (Radio Technician - civ.)	4	3	-	# hrs.
Forensic Science Div. (Evidence Technician - when called out or processing a time-consuming scene)	4	4	-	# hrs.
(Polygraph Examiner)	4	4	-	# hrs.
Central Records Div. (UCR or FOI requests)	4	5	-	# hrs.

	B Bureau	D Division	A Activity	T Time
5 - ADMINISTRATIVE SERVICES BUREAU				
Personnel Division	5	4	-	# hrs.
(Background Invest.)	5	4	-	# hrs.
Facilities Mgt. Div.	5	5	-	# hrs.
Business Administration	5	6	-	# hrs.
(Moving Day)	5	6	-	# hrs.

(10) Bureau - The numbers "1" through "5" along the left side of the boxes refer to the bureaus. Two additional coding areas are provided where the bureau number must be entered. The second additional coding area is for entry of overtime.

(11) Division (D) - After determining the bureau, select the proper division within that bureau and enter the division code number in the first box, under "D."

(12) Activity (A) - When the activity is performed in the Field Services Bureau area, record the code number of the activity in the second box, under "A." Activities shall be entered in accordance with the following codes and definitions.

a. 1 - Administration - Employees shall use this code in the Obligated Time area for administrative activities. District, post and section commanders will normally have administrative time.

b. 2 - Supervision - Employees shall use this code for supervisory activities. Sergeants and civilian supervisors will normally have supervision time.

c. 3 - Operational - Employees actually performing the work of a work unit will normally have operational time. Administrators and supervisors who also perform operational duties shall divide their time and activities between operational and other nonoperational areas.

d. 4 - Clerical - Secretarial and clerical employees will have clerical time. Enlisted personnel cannot have clerical time.

(13) Time (T) - Record the hours worked, rounded to the full hour, in the third box, under "T."

(14) Total Obligated Overtime - Enter bureau, division, activity and time in the second additional coding area.

(15) Total Obligated Time - Add together obligated hours worked for all bureaus and enter here.

(16) Activity During Obligated Time - Original activity generated by senior officer during obligated time.

(17) Obligated Mileage - Mileage incurred during performance of obligated activities, including mileage incurred to and from an employee's residence for those assigned departmental vehicles. Also includes mileage which cannot be classified within any unobligated mileage categories; i.e., mileage for operational support, transfers, to and from headquarters, incurred during vehicle repair or maintenance, etc.

(18) Meals and Lodging - When departmental reimbursement is due, place and "X" in the appropriate box.

(19) Unobligated Inputs - Hours - Refers to the work hours when the officer initiates patrol activity and responds to and investigates incidents. Unobligated time reflects the total gamut of the field trooper's job which is not committed by law or departmental policy.

(20) Patrol Hours - Hours of traffic policing with the amount of duty time spent on freeways, trunklines, county roads, and totals entered in the spaces provided. Indicate overtime patrol hours on the line preceding "Patrol."

(21) Overtime Hours - Whenever paid overtime or compensatory time is accrued, enter the hours on the line to the left of the appropriate category.

(22) Criminal Incident and Noncriminal Incident - Hours spent on investigation of incidents according to file classes. Court officer's time shall be recorded according to the file classes of the incidents being processed. Troopers on foot patrol (Capitol Post, Mackinac Island) shall carry their time as "Inspection/Investigation - 9800."

(23) Report Writing - Hours when an officer enters citations, arrests or incident numbers in log books, writing reports at the post, even if an incident number has been assigned, and similar kinds of paper work. Give a short explanation of the type of work done under "Description of Activity" on the other side of the daily. Unless the activity at the post involves a continuation of an investigation, carry the time as "report writing" if paper work is being done. An officer dictating a report while away from the post shall record the time within the appropriate file class or patrol category.

(24) District Court Indicate the reason for court in the first space; e.g., preliminary hearing, misdemeanor, traffic, civil, Liquor Appeal Board or Liquor Control Commission hearing, etc. In the second box indicate the court number. Leave blank for Liquor Control Commission or Secretary of State hearing. Enter the time spent preparing for and in court proceedings.

(25) Circuit Court - Indicate the file class of the incident in the box and enter the time spent preparing for and in court proceedings.

(26) Desk Assignment - Hours devoted to office duty at the post while assisting the supervising officer who is responsible for receiving incidents operating the radio or directing post personnel.

(27) Operational Support - Trooper hours devoted to housekeeping and care and maintenance of facilities and equipment; e.g., cleaning the post or vehicles, transporting vehicles to and from the garage, etc. Explain in the "Description of Activity" area on the other side of the daily.

(28) Total Unobligated Hours - Unobligated hours worked for the day.

(29) Unobligated Outputs - Activities - This section is to be used to indicate the activities performed during unobligated time.

(30) Hazardous Traffic Arrests - Arrests and citations issued for moving and equipment violations of the Vehicle Code. Does not include O.U.I.L., manslaughter with a motor vehicle, negligent homicide and felonious driving.

(31) Nonhazardous Traffic Arrests - Citations issued for nonmoving violations of the Vehicle Code.

(32) O.U.I.L. Arrests - Also includes arrest for D.W.I. and O.U.I.D.

(33) Total Traffic Arrests - A total of all the figures entered above.

(34) Felons Arrested - The number of persons arrested for felonies. Do not include fugitive felony arrests.

(35) Misdemeanants Arrested - The number of persons arrested for misdemeanors not accounted for under total traffic arrests. Do not include fugitive misdemeanor arrests. When a person is arrested for both a misdemeanor and felony, carry the person as a felon arrested.

(36) Total Persons Arrested - This is a total of felons and misdemeanants arrested as entered on the two lines above.

(37) Patrol Counts - The number of criminal law violations (not included in total traffic arrests above) for which persons have been arrested through an officer's own initiative and observation while on patrol.

(38) Investigative Counts - The number of criminal law violations (not included in total traffic arrests above) for which persons have been arrested as the result of the investigation of an incident assigned by the district, post or work site or received directly from another person.

(39) Total Arrest Counts - The total number of patrol and investigative counts.

(40) Fugitives Arrested - The number of persons arrested as fugitives. If a person is arrested for a patrol or investigative felony or misdemeanor and is also arrested on a fugitive charge, carry one arrest, either felony or misdemeanor, the appropriate number of counts and one fugitive arrest.

(41) Warrants Satisfied - The number of warrants satisfied by the arrest of fugitives.

(42) Verbal Warnings - Only one verbal warning may be recorded for each driver, regardless of the number of offenses brought to that driver's attention through verbal communication.

(43) Total Motor Vehicle Accidents - Enter only traffic accidents with a file class of 9300-1, except car-animal accidents and those not investigated at the scene.

(44) Passenger Restraint Citations - The number of citations issued for passenger restraint violations including child restraint violations. These citations are also recorded as "Hazardous Traffic" arrests above.

(45) Passenger Restraint Verbal Warnings - The number of traffic stops where one or more passengers are warned about restraint violations. This warning is also recorded as a "Verbal Warning" above.

(46) Original, Dispatched Incidents - Incident assigned by the post/work site or received directly from another person.

(47) Original Patrol Incidents - Incidents generated by an officer's own observation and initiative while on patrol.

(48) Supplementary Incidents - When a supplementary report is submitted or a notation is endorsed on the Case Supervision Sheet.

(49) Unobligated Mileage - Miles driven during unobligated hours, according to activity and type of road. Mileage of a trooper to and from a court proceeding shall be carried within the "Traffic Incident" or "Other Incident" mileage categories.

(50) Directed Patrol Information - Record the senior officer car hours and vehicle contacts for the various directed patrol categories designated by management.

(51) Local Use - Any specific area of productivity which is designated by management for local capture and use.

B. Complete the reverse side of the daily as follows:

(1) Time - Time when each activity started. Also record the time cleared from an incident.

(2) Activity - Record abbreviations of activities performed, as follows:

a. S - Summons

b. Arr. - Arrest

c. C.A. - Cars Assisted

d. C.I. - Cars Investigated

e. V.I. - Vehicles Inspected

f. P.I. - Property Inspections

g. L.I. - Liquor Inspections

h. V.W. - Verbal Warnings

i. Incid. Orig. - Original Incidents

j. Incid. Supp. - Supplementary Incidents

k. Inv. - Persons Investigated

l. Subp. Serv. - Subpoenas Served

(3) Code - Use citation codes from the UD-8 cover for traffic citations or verbal warnings. Use arrest codes for arrests and file classes for incidents.

(4) Location - Where activity is performed.

(5) Description of Activity - Include the information listed below for each activity:

a. Persons Issued a Summons or Arrested (S, Arr.) - Name and citation number when a UD-8 is issued. Name and arrest number when a UD-7B is submitted.

b. Incidents Investigated (Incid. Orig. or Incid. Supp.) - Type of incident and incident number.

c. Cars Assisted (C.A.) - Make of vehicle, license number and type of assistance.

d. Cars Investigated (C.I.) - Make of vehicle, license number, name of driver, if any, and reason for investigation.

e. Vehicle Inspection (V.I.) - Make of vehicle, license number and status of inspection.

f. Property Inspection (P.I.) - Name. (Property Inspection Sheet must be completed and left at scene.)

g. Liquor Inspection (L.I.) - Name of establishment, establishment license number and name of person in charge.

h. Verbal Warning (V.W.) - Name of driver, operator's license, date of birth, vehicle license number and reason for stopping, if not included in coding.

i. Persons Investigated (Inv.) - Name, date of birth, address and reason for investigation.

j. Subpoenas Served (Subp. Serv.) - Name of persons subpoenas served to.

k. Indicate where meals were eaten on duty time.

C. Upon completion of the daily report, each member shall sign it and submit it to the commanding officer.

(1) Signature of Employee - Certifies that the time and activities recorded on the daily are correct.

(2) Signature of Supervisor - Required for authorization of overtime, compensatory time earned or stand-by time.

(3) Reviewed - Certifies that the employee has worked or has authorized leave time for the number of hours indicated.

(4) Entered - Indicates the person who entered the information from a daily into the computerized daily system.

3. DISTRIBUTION

A. The UD-2 form shall be submitted upon completion of each day's tour of duty by both enlisted and civilian employees assigned to the Uniform Services Division.

B. Statistical information from the dailies shall be entered into the Computerized Officer's Daily Program according to instructions given in Order No. 9, Appendix D, Enclosure (1).

4. RETENTION

Retain the UD-2 for a minimum of three years plus the current year. Retain until audited by an auditor of the Auditor General's Office if not audited within the minimum retention time.

Appendix D

Description of Activity Analysis Report (UD-193)

Enclosure (193)
Appendix D
Official Order No. 9

ACTIVITY ANALYSIS REPORT, UD-193

1. GENERAL INFORMATION

A. The Activity Analysis Report (UD-193) is the department's form for establishing and evaluating the overall quantitative activity performance level of the Uniform Services Division, districts, posts and individual troopers assigned to patrol duties. Official Order No. 121 outlines the purposes of and responsibilities for the Departmental Activity Analysis Program.

B. The Activity Analysis Report is a quarterly report. Evaluation quarters are defined as follows:

(1) Spring - March, April and May

(2) Summer - June, July and August

(3) Fall - September, October and November

(4) Winter - December, January and February

C. The UD-193 form is completed for individual troopers using data from the officers' Uniform Division Daily Reports (UD-2) as entered into the on-line daily system.

D. The UD-193 form is completed for districts and posts using data from the Uniform Division Work Site Report (UD-1).

E. Page 1 of the UD-193 form is the "input" analysis expressed as a decimal percentage showing the breakdown of where the trooper's time was spent. Page 2 provides an analysis of the trooper's quantitative "outputs" during the quarter. Activity as a result of hours spent is the basis for evaluating performance at the division, district, post and individual trooper level.

2. RESPONSIBILITIES

A. Post commanders are responsible for the proper entry of officers' dailies into the computerized daily system.

B. District commanders are responsible for the review and uniform use of the UD-193 forms within the district and for approval of all changes in post baselines.

C. The Uniform Services Division commander is responsible for ensuring uniformity between districts in policies regarding the use of the UD-193 form.

D. The Executive Division is responsible for providing timely UD-193 information for posts and districts each quarter.

3. COMPLETION

A. Baselines necessary to complete pages 1 and 2 of the UD-193 form will be provided to all posts by the Executive Division prior to the beginning of the quarter.

B. The Executive Division will forward to the post commanders a completed UD-193 form for each trooper at the end of the quarter.

C. In order to allow further understanding of the Activity Analysis System, the following instructions are provided:

(1) Page 1 - Inputs

a. Completion of columns 1 through 3 is optional. Insert the quarterly totals for the following activity areas on the proper line in column 4 of the UD-193 form:

1a. "Car Hours on Patrol"

2a. "Criminal Complaint Hours"

3a. "Non-criminal Complaint Hours"

4a. "Non-complaint Hours"

b. Add these hours together and enter the total in column 4 of "Total Unobligated Hours."

c. Divide:

1c. "Car Hours on Patrol" by "Total Unobligated Hours Enter the result in column 5.

2c. "Criminal Complaint Hours" by "Total Unobligated Hours." Enter the result in column 5.

3c. "Non-criminal Complaint Hours" by "Total Unobligated Hours." Enter the result in column 5.

4c. "Non-complaint Hours" by "Total Unobligated Hours." Enter the result in column 5.

d. Insert the quarterly "Report Writing" total in column 4.

1d. Add "Criminal Complaint Hours" to "Non-criminal Complaint Hours" to get "Total Complaint Hours."

2d. Divide "Report Writing Hours" by the number of "Total Complaint Hours." Enter the result in column 5.

e. Divide all the numbers now entered in column 5 by the corresponding numbers in column 6. Enter the answers in the spaces provided in column 7. Column 7 now contains the time spent in the various activity categories expressed as decimal percentages of the post baseline. If multiplied by 100, the numbers in the column become true percentages.

f. The minimum areas needed to complete page 1 of the analysis are now done. Further areas are to be completed at the supervisor's discretion.

g. (Optional) To determine the percent of time expended in each of the subcategories of the major activity areas, divide the number of hours spent in the subcategory by the total number of hours expended in the major activity area.

Example: Divide the number of hours spent in the subcategory of "Crimes Against Persons" by the total number of "Criminal Complaint Hours." Enter the result in column 5.

h. "Average Miles Per Hour" can be found by dividing the number of "Miles Traveled on Patrol" by the number of "Total Car Hours Spent on Patrol." To find the average number of "Miles Per Hour" traveled on each type of roadway, divide the number of "Miles Traveled" on the type of roadway by the "Car Hours" spent patrolling there.

(2) Page 2 - Outputs

a. Insert the quarterly output totals and total number of "Car Hours on Patrol" in column 4 of the proper line on the UD-193 form. (Monthly totals, columns 1 through 3, are optional.)

b. Subtract the number of "Criminal Traffic Hours" and "OUIL Hours" from "Total Criminal Complaint Hours" on page 1 and enter the result as "Adjusted Criminal Complaint Hours" in column 4.

c. Perform the indicated mathematical calculations for the following activity areas:

1c. Hazardous Traffic: Divide the total "Car Hours on Patrol" by the "Hazardous Traffic" total (column 4). Enter the result in column 6.

2c. Non-hazardous Traffic: Divide the total "Car Hours on Patrol" by the "Non-hazardous Traffic" total (column 4). Enter the result in column 6.

3c. O.U.I.L.: Divide the total "Car Hours on Patrol" by the "O.U.I.L. Arrest" total (column 4). Enter the result in column 6.

4c. Patrol Counts: Divide the total "Car Hours on Patrol" by the "Patrol Counts" total (column 4). Enter the result in column 6.

5c. Investigative Counts: Divide "Adjusted Criminal Complaint Hours" by the number of "Investigative Counts" this quarter (column 4). Enter the result in column 6.

6c. Fugitives Arrested: Divide the total "Car Hours on Patrol" by the total number of "Fugitives Arrested" (column 4). Enter the result in column 6.

7c. Cars Assisted: Divide the total "Car Hours on Patrol" by the total number of "Cars Assisted" (column 4). Enter the result in column 6.

8c. Cars Investigated: Divide the total "Car Hours on Patrol" by the total number of "Cars Investigated" (column 4). Enter the result in column 6.

9c. Vehicles Inspected: Divide the total "Car Hours on Patrol" by the total number of "Vehicles Inspected" (column 4). Enter the result in column 6.

10c. Property Inspections: Divide the total "Car Hours on Patrol" by the total number of "Property Inspections" (column 4). Enter the result in column 6.

11c. Liquor Inspections: Divide the total "Car Hours on Patrol" by the total number of "Liquor Inspections" (column 4). Enter the result in column 6.

12c. Verbal Warnings: Divide the total "Car Hours on Patrol" by the total number of "Verbal Warnings" (column 4). Enter the result in column 6.

13c. Patrol Original Complaints: Divide the total "Car Hours on Patrol" by the total number of "Patrol Originals" (column 4). Enter the result in column 6.

14c. Motor Vehicle Traffic Accidents Closed by Hazardous Arrest: Divide the quarterly number of "Motor Vehicle Traffic Accidents Closed by Hazardous Arrest" by the number of "Total Accidents Investigated" by the trooper this quarter (column 4). Enter the result in column 10.

To complete the analysis do the following steps:

d. Divide the number in the "Post Baseline" column (5) by the corresponding number in the "Trooper Baseline" column (6). Enter the result in the "% of Baseline" column (7).

e. For motor vehicle accidents closed by hazardous arrest, divide the number in the "Trooper Baseline" column (10) by .55 ("Departmental Baseline" column 11). Enter the result in the "% of Baseline" column (7).

f. Multiply the number in the "Standard Value" column (8) by the number in the "% of Baseline" column (7) or by 1.5, whichever is smaller. Enter the result in column 9.

g. Add together (down the column) all the numbers in column 9. Enter the result on line 13.

h. Divide the answer on line 13 by 5. This gives the overall performance level in a percent for the individual officer. Enter the result on line 14.

i. To do a quarterly analysis for the post, add together the answers on line 13 for every nonspecialist trooper at the post. Divide the result by the number of officers. This gives an average performance level for the post. Enter the result on line 15 on each officer's UD-193.

j. To compare each officer with the post average, divide the answer on line 13 for that officer by the number entered on line 15. Multiply by 100. This gives the individual officer's performance level as a percentage of the post average for the quarter. Enter the result on line 16.

4. DISTRIBUTION AND RETENTION

A. Performance Evaluations

(1) The UD-193 forms for the Uniform Services Division, districts, posts, and individual troopers will be initiated quarterly by the Executive Division.

(2) The post commander will receive copies of performance evaluations of the post and individual officers.

(3) The district commander will receive copies of performance evaluations of the posts and district.

(4) The Uniform Services Division Commander and Commanding Officer, Field Services Bureau, will receive copies of the evaluations of the districts and the Uniform Services Division.

B. Retention

(1) Copies of the UD-193 forms will be retained by the posts and districts for at least two years.

(2) When an officer is transferred, copies of the UD-193 forms and other reports concerning the quarterly evaluation shall be forwarded to the commanding officer of the new assignment.

(3) The Executive Division will retain copies of the division, district, and post baselines for at least five years.