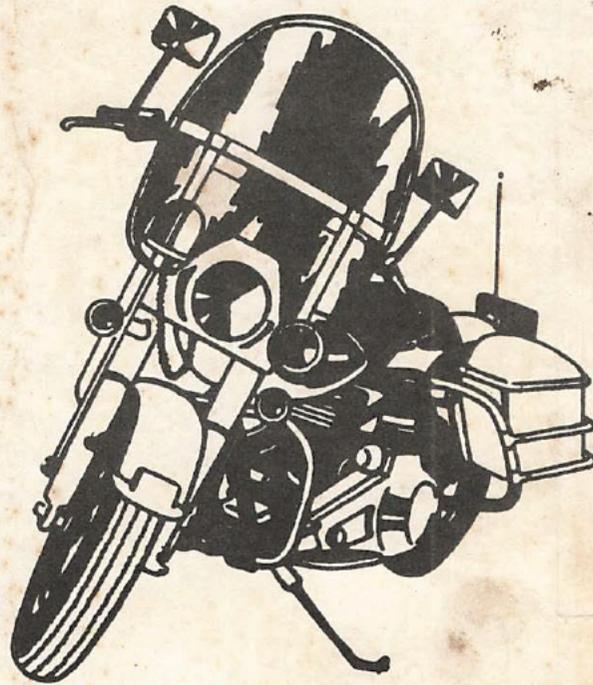


HIGHWAY DISTRICT

MOTORCYCLE SCHOOL

INSTRUCTION MANUAL



MOTORCYCLE SCHOOL OF INSTRUCTION

WELCOMING ADDRESS BY DIRECTOR OF TRAINING

I wish to take this opportunity to welcome you to the Highway District Motorcycle School of Instruction. I am confident that the time you spend here will be beneficial to yourself as an individual, and to the Highway District as well.

You will be expected to conduct yourselves in a manner appropriate to the high calibre of personnel contained within the Highway District. Those not conforming to the expected mode of conduct will be dismissed from the school.

Safety is of paramount concern. It is therefore absolutely essential that each student strictly adhere to the directions of Staff members and obey the Safety Rules promulgated by the School.

The curricula will be demanding, and your undivided attention, to both formal lectures and field instruction will be required. A final written examination will be given in addition to the final field test. BOTH examinations must be successfully completed for you to graduate. It is therefore suggested that you take extensive notes during lecture periods. A careful review of "handout" material is also advisable.

Good Luck.

Director of Training

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

ORIENTATION

1. TOUR: 0715 to 1515 hours.
2. LOCATION: Highway Sub-Unit 2 (Motorcycle storage area)
2900 Flatbush Avenue
Brooklyn.
3. DURATION: Ten (10) days.
4. CLOTHING: WARM old clothes, leather lace type shoe, or boot
NO sneakers, sandals or loafers, RAIN GEAR, uniform
available, leather gloves, approved department
motorcycle helmet.
5. EQUIPMENT: Ball point pen (blue or black ink), both halves of
driver license, notebook.
6. LUNCH: It is advisable to bring your lunch. The training site
(Riis Park is not accessable to food venders.)
7. INCLEMENT WEATHER:

In case of Inclement weather (heavy rains), the High-
way District will be called (465 4020) AT 0615 hours,
to determine if school is open.

If closed, students will report to their assigned Sub-
Units.

MOTORCYCLE SCHOOL OF INSTRUCTION

Specifications

ENGINE

Number of cylinders	2
Type	45 degree V type
Horsepower	FLH 66.0 @ 5600 RPM
	FL 57.0 @ 5200 RPM
Taxable horsepower	9.44
Bore	3-7/16 in. (87.3 mm)
Stroke	3-31/32 in. (100.8 mm)
Piston Displacement	73.66 Cu In (1207cc)
Torque	FLH 65lb ft @ 3200 RPM
	FL 62lb ft @ 3200 RPM
Compression ratio	FLH 8 to 1
	FL 7.25 to 1

IGNITION SYSTEM

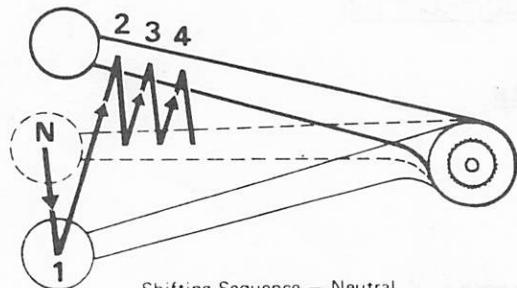
Circuit breaker gap	.022 in (points)
Spark plug- size	14mm
Gap	.025 to .030 in
Heat range for aver use	# 3-4
Spark Timing	5 deg. Retard BTC
Automatic advance	35 deg BTC
Transmission	Constant mesh
Speeds	4 forward

Capacities

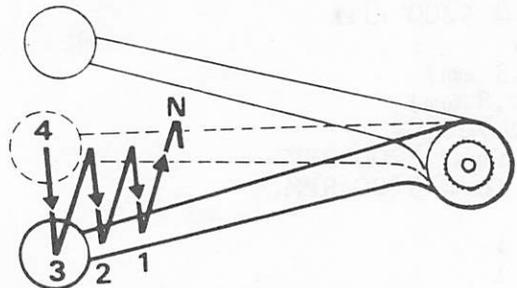
Fuel tank	5 US gals
(Resrve)	1(Included in above figure)
Oil tank	4 quarts, US
Transmission	1½ pints US

Tire size

	5.00x16
Pressure	26 Front
	28 Rear

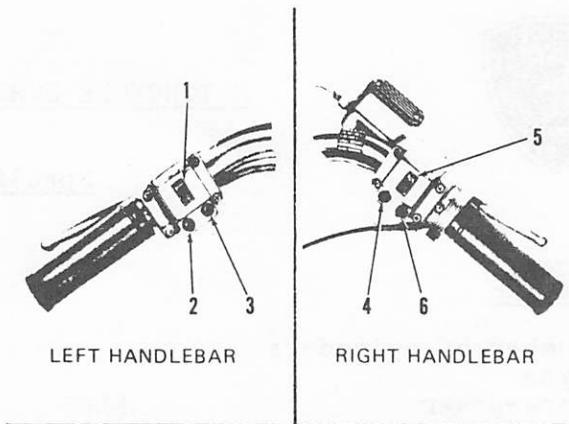


Shifting Sequence - Neutral to Higher Gears



Shifting Sequence to Lower Gears

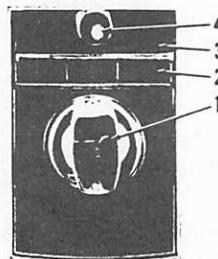
FIGURE 11. FOOT SHIFT



LEFT HANDLEBAR

RIGHT HANDLEBAR

1. Headlamp Dimmer Switch
2. Left Turn Signal Switch
3. Horn Button
4. Starter Button
5. Engine Stop Switch
6. Right Turn Signal Switch



FL/FLH-1200

1. Ignition-Light Switch
2. High Beam (Red), Neutral Indicator (Green) and Oil (Red) Lamps
3. Direction Signal Pilot Lamps (Green)
4. Choke Knob

1. Direction Signal Lamps
2. Headlamp
3. Carburetor Choke Knob
4. Gas Tank Valve
5. Ignition Coil
6. Rear Sprocket and Chain
7. Oil Tank Drain Plug
8. Oil Tank Fill Plug and Dipstick
9. Clutch Inspection Cover
10. Front Chain Inspection Cover
11. Jiffy Stand
12. Timing Inspection Hole Plug
13. Rectifier, Regulator Module
14. Steering Lock

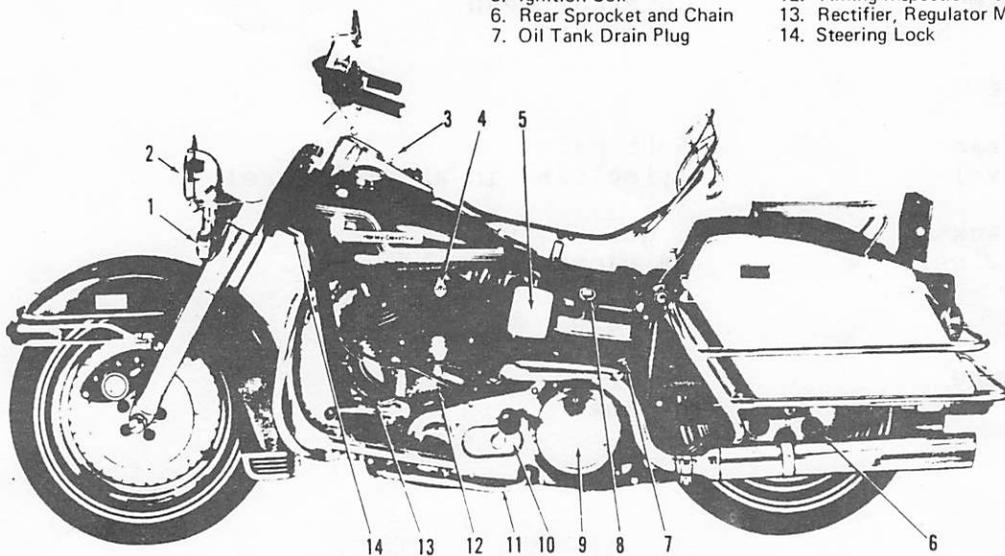


FIGURE 2. LEFT SIDE VIEW - FL/FLH-1200

MOTORCYCLE SCHOOL OF INSTRUCTION

(First Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0830	60	ORIENTATION AND SAFETY LECTURE a. Introduction to the Mcy Sch of Inst. b. Training and Safety Rules.
0830-0915	45	VISUAL TRAINING AID a. Video tape course layout and required maneuvers.
0915-0930	15	PERSONAL BREAK
0930-1015	45	EQUIPMENT LECTURE a. Motorcycle nomenclature
1015-1030	15	PREPARATION OF EQUIPMENT a. Fueling of machines. b. Check transmission level c. Safety Inspection
1030-1130	60	MEAL PERIOD
1130-1145	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE.
1145-1330	105	RIDING INSTRUCTION a. Initial rides, 1st gear, throttle cut to 10-12 mph. Str. line, large oval course.
1330-1345	15	PERSONAL BREAK
1345-1500	75	RIDING INSTRUCTION a. Initial rides in 1st gear, throttle cut to 10-12 mph
1500-1515	15	STORAGE OF EQUIPMENT a. Mcys return from training site b. Equipment stored/secured c. Students dismissed.

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

(Second Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT a. Fueling of machines. b. Check transmission oil level. c. Safety Inspection.
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE
0830-0930	60	RIDING INSTRUCTION a. Slow maneuvers (i.e. slow turns, fig. "8"s) in 1st gear with no throttle cut down, following a riding instructor.
0930-0945	15	PERSONAL BREAK
0945-1045	60	RIDING INSTRUCTION See 0830 (Wide arc, single serpentine)
1045-1145	60	RIDING INSTRUCTION a. Exercises in clutch control, slow riding, following Riding Instructor in a straight line in fairly close formation. 1st gear.
1145-1245	60	MEAL PERIOD
1245-1415	90	RIDING INSTRUCTION a. Exercises in starting and accelerating, 1st and 2nd gear, following a Riding Instructor.
1415-1430	15	PERSONAL BREAK
1430-1500	30	RIDING INSTRUCTION a. Riding, starting and shifting, stopping, 1st and 2nd gears.
1500-1515	15	STORAGE OF EQUIPMENT See 1500, 1st day.

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

NOTES

15. When approaching an intersection it is advisable to always be prepared to STOP. This will ensure that intersecting vehicles can be avoided.
16. Depend on peripheral vision instead of constant head turning.
17. While proceeding downhill the force of gravity is adding its pull to the already heavy weight of the motorcycle, thus causing stopping distances to increase.

OPERATOR ATTITUDE

Don't get overconfident- "horsing around" has been found to be a contributory cause of accidents.

Motorcycles should not be treated as toys- over-riding (riding beyond your capabilities) is a primary cause of accidents.

Most accidents are caused- they don't just happen ! Operator error is the MAJOR CAUSE of accidents.

Anticipate the actions of other motorists.
a. Be particularly aware that motorists entering the parkway MAY NOT SEE YOU.

MOTORCYCLE SCHOOL OF INSTRUCTION

1. Metal plates- metal gratings on bridges.

NOTE:

When riding on metal gratings you should:

1. Reduce speed.
2. Accelerate slightly (for greater traction)
3. Avoid braking, if possible.

9. SAFETY TIPS:

- a. When riding on slippery roads you should:

1. Avoid sudden and rapid movements.
2. Use brakes carefully.
3. Slow down.

10. Proper following distance is extremely important for motorcycles than for automobiles because the motorcycle is an inherently unstable vehicle and in sudden stops it is possible to verbrake and lose control.

11. Following other vehicles too closely can result in:

- a. Keeping other drivers from seeing you.
- b. Make it hard to see objects in the road.
- c. Reduces your ability to see traffic conditions ahead of you.

12. As you increase your speed, see to it that other vehicles are at an increasingly further distance from you.

13. On a steep grade, it is advisable to downshift, thereby using your engine for additional braking or pulling power.

14. When being passed by another vehicle you should maintain your speed and position in the lane

NOTES

MOTORCYCLE SCHOOL OF INSTRUCTION

NOTES

- c. You are more easily seen by the operator ahead through his rear view and outside mirror.
 - d. You are further away from car doors that may open as you pass.
 - e. You are further away from cars entering the highway.
7. Consider yourself as NOT BEING SEEN at any time.
- a. It is surprising that other motorists don't respond to you as they would if you were in an automobile.
 - b. When following, if you don't see the eyes of the operator ahead, reflected in the rear mirror, then consider yourself NOT SEEN.
8. ROAD HAZARDS:
- Special Hazards for Motorcyclists
- a. Wet leaves, sand, gravel and cobblestones.
 - b. Oil and grease (particularly in the areas around Toll Plazas.)
 - c. Wet man hole-covers.
 - d. Steel plates and traffic stripes.
 - e. Icing conditions in underpass or exposed positions.
 - f. Rain swept streets.
 - g. Pot holes
 - h. Construction sites.

MOTORCYCLE SCHOOL OF INSTRUCTION

1. ROAD OPERATION GUIDELINES:

- a. Stop behind the last car in lane, unless during emergency response.
- b. Hand signals given from LEFT SIDE, right hand should be available for braking.
- c. When stopping apply the rear brake slightly before front brake so that you don't:
 1. Lose steering control by front wheel lock-up.
 2. Pitch forward by application of front hand brake excessively.

2. BRAKING IN TURNS:

Try to do all your braking BEFORE entering a turn. If you must brake in a turn, do so with application of the REAR BRAKE. Application of front brake while turning could cause an accident due to loss of steering (wheel lock up.)

3. ALWAYS check brakes BEFORE leaving on patrol. (IMMEDIATELY after starting motorcycle.)
4. Front wheel brake has greater stopping power.
5. If the clutch cable breaks, the motorcycle will stay in gear.
6. Operate a motorcycle in left hand tire track of the RIGHT LANE.
 - a. In this position you are not riding on grease and oil droppings from cars.
 - b. You are discouraging motorists from sharing this lane with you.

NOTES

MOTORCYCLE SCHOOL OF INSTRUCTION

28. PATROL

The particular duty of a Motorcycle Police Officer on patrol is to:

1. Enforce the Traffic Regulations and the Vehicle and Traffic Law.
2. Expedite the flow of traffic.
3. Prevent accidents, injuries, and deaths on the highway.
4. Perform other police duties as described in the Patrol Guide.

29. PARKWAY PATROL

Be alert for congestion.

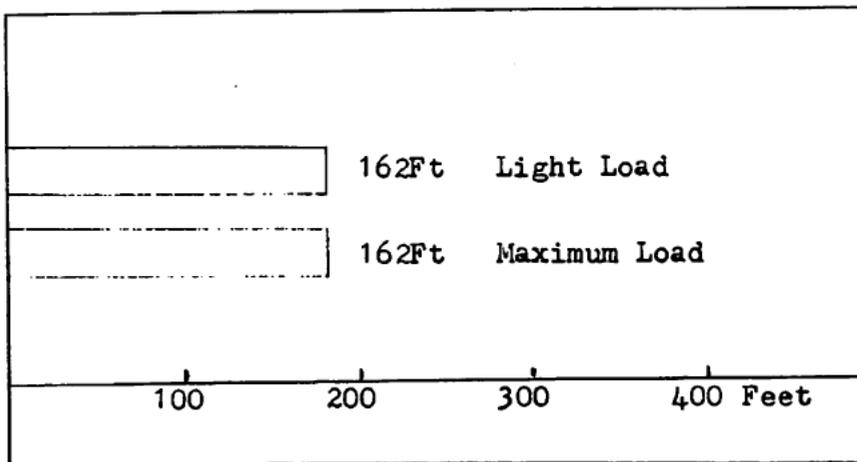
1. If traffic backs up, proceed to point of congestion and facilitate the resumption of free traffic flow.
2. Notify Operations Officer of any unusual tie ups, accidents, or new detours.
3. If a car is disabled, try to get it off the parkway road.
4. If necessary, call the authorized tow service through Traffic Operations and return to direct traffic.

MOTORCYCLE SCHOOL OF INSTRUCTION

STOPPING DISTANCE (E.P.A.)

1. This figure indicates braking performance that can be met or exceeded by the vehicle to which it applies, without locking the wheels.
2. This information represents results obtained by skilled drivers under controlled road and vehicle conditions

HARLEY-DAVIDSON Model F.L. 1200



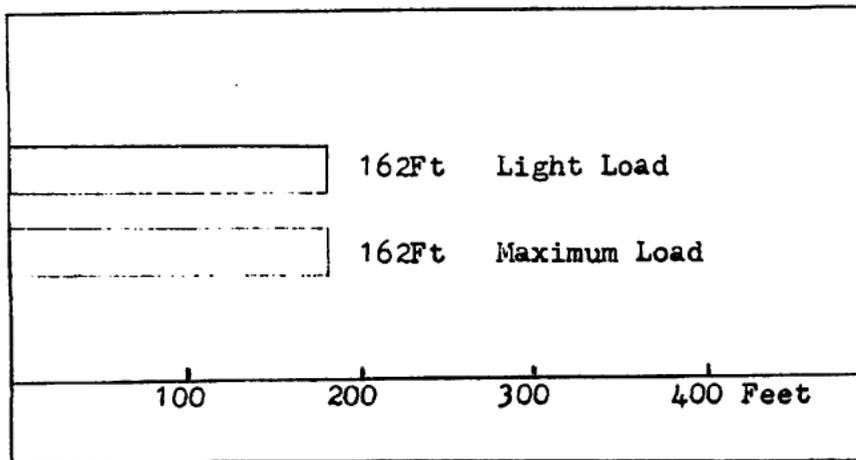
Fully operational front and rear service brakes
Stopping distance in feet from 60 M.P.H.

MOTORCYCLE SCHOOL OF INSTRUCTION

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HARLEY-DAVIDSON Model F.L. 1200



Fully operational front and rear service brakes
Stopping distance in feet from 60 M.P.H.

MOTORCYCLE SCHOOL OF INSTRUCTION

23. Immediately upon turning out on post operators will inspect their post for unsafe riding conditions and make entry in their log that it was inspected. If you see a hole while riding fast, hold your grips tightly, keep your feet planted on the footboards, and ride it out. Do not brake or swerve at the last moment in an attempt to miss the hole. If post is unsafe a request for post or equipment change will be made.
24. If the road on which you are riding is unsafe, follow cautiously until on a safe stretch, then overtake and arrest or summons the violator. If unable to overtake with safety, obtain the registration number and apply for a court summons. Never ride over your head--- it is better to allow the motorist to get away than to have an accident.
25. MOTORCYCLE OPERATORS WILL NOT ENGAGE IN SPEED ENFORCEMENT OR IN HIGH SPEED APPREHENSION FOR OTHER VIOLATIONS.
26. When conditions make it necessary to use the siren to apprehend a violator, be certain that you allow sufficient stopping distance between you and the violator in case he stops suddenly. On escorts or serum runs, if you must use the siren, sound it far enough away from the intersections, or other vehicles to allow motorists time to get their vehicles under control and out of your way.
27. **BE ALERT.** While operating your motorcycle always anticipate unexpected actions on the part of other motorists. Be prepared for sudden stops, turns, and starts. Don't take anything for granted, including your own riding ability.

MOTORCYCLE SCHOOL OF INSTRUCTION

14. Do not drive on the wrong side of the road. If this is necessary in an emergency, turn on your red front lights and proceed cautiously.
15. Do not pass red signal lights. If necessary in an emergency, use your turret light, red lights, and siren and proceed only when it is safe to do so.
16. If you park your motorcycle on a hill, put it in first speed, engage the clutch, and place down-hill wheel against and facing the curb.
17. Always look around you before putting your motorcycle in motion.
18. Do not turn to the right or left without looking to see if such movement can be made safely. If possible, always give hand signal in addition to looking.
19. Do not make sudden stops unless in an emergency. Touch your brake pedal several times so as to operate the "STOP" light and, if possible, give a hand signal in addition.
20. Do not show off, do any fancy riding, or ride too close to another motorcycle. Allow for the slight wobble which occurs at low speeds or when hitting bumps. Riding too close may result in locked handlebars or crash bars and an accident.
21. When dismissed at an escort or detail, or after completing a tour of duty on post, do not race back to your precinct. Drive safely and wisely.
22. Keep your eyes open and your attention directed ahead. Do not gaze around except to check for nearby vehicles or other hazards. Remember to not only watch the car directly ahead, but also all others in your line of travel. Always expect the unexpected.

MOTORCYCLE SCHOOL OF INSTRUCTION

7. Do not apply your brakes hard on wet, sandy, or unsafe pavement, or while turning. This may cause a skid.
8. Do not jam your brakes so hard as to make the wheels skid. If this occurs, release the pressure slightly. On slippery pavement it may be necessary to use an on and off motion to prevent skidding.
9. Be careful going downhill. It takes much longer to stop on a downgrade than on level ground so reduce your speed.
10. Be careful entering tunnels or blind curves. Remember, the pavement you are riding may be dry but when you enter a darkened tunnel or round a curve, the pavement might be slippery or a vehicle may be stopped in the roadway. Also, it takes time for your eyes to adjust to difference in illumination.
11. Form the habit of watching for wet or icy pavement, wet leaves, wet manhole covers, horse manure, sand, gravel, grease or oil, holes or broken pavement, wet painted cement or tile traffic marker lines. If necessary to cross wet tracks, do so at as near a right angle as possible.
12. Be careful in starting off if you have stopped in oil or gasoline. Your tires may remain slippery for quite a distance after leaving the oil patch.
13. Do not follow directly or too close behind another vehicle, but off to one side, preferably to the left. You may then observe any signal given by the driver ahead. Also, by driving to one side you may observe the condition of the roadway which you are approaching.

MOTORCYCLE SCHOOL OF INSTRUCTION

26

SAFETY DURING OPERATION

The operation of a motorcycle is a hazardous duty. It requires alertness, care, and strict adherence to all rules of safety at all times. There is no place in the Highway District for the careless, lackadaisical, indifferent or accident prone operator.

The following are instructions and suggestions to promote safe operation and reduce motorcycle accidents. They should be studied and practiced by every motorcycle Police Officer.

1. Avoid passing an auto at an intersection. If a driver turns or if an auto swings wide around the corner while you are passing, you are bound to be involved in a collision.
2. Be extremely careful when passing an auto on the right side, or driving close to parked autos. The door of a parked car may open in front of you suddenly, or a car may leave the curb without warning.
3. Watch for cars making "U" turns (many taxicabs make these turns). If you notice a car which you believe is going to make a "U" turn, sound horn, reduce speed, and apply brakes. Be prepared to stop if the driver disregards your signal.
4. Be prepared for a motorist suddenly turning to the right or left. Observations of motorists you are overtaking or approaching often give you clues as to these turns.
5. Always stop the motorcycle engine when filling the gas tank to avoid the possibility of fire.
6. Always check your brakes before going out on patrol. Be extremely careful after washing motorcycle that brakes have not become watersoaked and inoperative.

MOTORCYCLE SCHOOL OF INSTRUCTION

24. PARKING MOTORCYCLES

- a. Never dismount with the motorcycle in gear, clutch disengaged, and engine running. The creeping action of the clutch or accidental engagement of the clutch may cause serious accident.
- b. Park motorcycles safely; Angle park at the curb to make the motorcycle more visible to other motorists
- c. When stopped behind a violator, remind him not to back up before he pulls away.
- d. If a parked motorcycle is struck by another vehicle, serve a summons for unsafe starting or backing, if possible.

25. INSPECTION

- a. At the beginning of each tour of duty motorcycle P/Os will inspect their assigned motorcycles for that tour and report the results of that inspection to the S.H.C. or Operations Officer.

The Inspection Will Include;

- Serviceability of the motorcycle
- Cleanliness
- Condition of fire extinguisher
- Serviceability of the radio

MOTORCYCLE SCHOOL OF INSTRUCTION

21. PLACING IN MOTION
 - a. Sit astride the motorcycle
 - b. Move jiffy stand to rear with left heel to closed position.
 - c. With left hand, disengage the clutch by pulling all the way in towards hand grip.
 - d. Place gear shift lever into first speed position with left toe by pushing downward.
 - e. Slowly engage the clutch
 - f. Slightly advance the throttle
 - g. As the motorcycle starts to move, keep head and eyes straight ahead; don't stare down at controls
 - h. Advance throttle slightly
 - i. Continue clutch movement out, until fully engaged.
22. SHIFTING TO HIGHER GEAR
 - a. Advance throttle until a speed of 5 to 10 M.P.H. has been reached.
 - b. Disengage the clutch
 - c. Turn off throttle
 - d. Place gear shift lever into 2d speed position
 - e. Engage clutch smoothly and advance throttle
 - f. To shift to 3d speed accelerate to speed of about 25 M.P.H. and repeat the above.
23. STOPPING AND USE OF BRAKES
 - a. TO STOP - Turn down throttle
 - b. Apply foot brake first
 - c. Next apply hand brake
 - d. Use steady and firm pressure but not so hard as to lock the wheels and cause a skid.
 - e. Avoid braking on a curve or when leaning into a turn.
 - f. If necessary to reduce speed on a curve, right motorcycle momentarily; then apply brakes.
 - g. On wet or sandy pavement special care must be used; pumping of brake pedal will help to prevent a skid. DO NOT LOCK THE BRAKES!
 - h. Keep motorcycle in gear with clutch engaged the braking action of engine aids in stopping and prevents skidding.
 - i. The hand brake may be used to "Hold" on a hill or hold while stopped with both feet down.

MOTORCYCLE SCHOOL OF IN TRUCTION

18. FIRE EXTINGUISHER

- a. All Department Motorcycles are equiped with a fire extinguisher;(Dry powder type).
- b. The operator will be held responsible for its security,serviceability and use.
- c. If the contents are used to extinguish a fire or other reason,the operator will;
 - 1) Notify the S.H.C. or Operations Officer of precinct of occurrence
 - 2) Enter information in Memo book
 - 3) Damage,loss or theft make immediate report to precinct of occurrence.

19. OPERATION.(Cold Engine)

- a. Open main gas velve
- b. Place gear shift in neutral position
- c. Pull out choke all the way
- d. Open throttle slightly ($\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{4}$ Turn)
- e. Turn on ignition switch (light will indicate neutral position)
- f. Depress starter button;(right handlebar,Forward button)
- g. DO NOT continue to hold starter engaged for more than 10 seconds at a time.
- h. If engine fails to start after a reasonable time;
 - 1) Open throttle all the way
 - 2) Close the choke by pushing all the way down
 - 3) Crank engine 5 to 10 seconds
 - 4) repeat normal starting proceedure
- i. NEVER RACE A COLD ENGINE

20. OPERATION (Cool engine)

- a. $\frac{1}{4}$ to $\frac{1}{2}$ Throttle with $\frac{1}{2}$ choke
 - b. Push choke in as soon as engine starts
 - c. DO NOT choke a hot engine
 - d. Do not allow a motorcycle to idle on its stand longer than absolutely necessary - Turn off engine!
- If engine stalls turn off ing. immediately to prevent discharge of battery and damage to points and condenser and coil.

MOTORCYCLE SCHOOL OF INSTRUCTION

14. MAINTAIN UNIFORMITY OF EQUIPMENT

- a. No accessories shall be added to, or taken from Department Motorcycle; or changed from one to another

15. REPAIRS

- a. If any repair is required they will be made by a Department mechanic.
- b. Report necessary repairs to the S.H.O. of Patrol supervisor.
- c. If possible, observe how the repairs are made and become familiar with mechanism.
- d. Learn the operation of the motor and its limitations.

16. CLEANLINESS

- a. Department Motorcycles must be kept clean and serviceable at all times.
- b. On motor and transmission, clean grease and oil with "Gunk", C.W. or similar cleanser.
- c. On painted and chrome surfaces, clean and polish with a good grade auto cleaner and wax.

17. REQUIRED DAILY MAINTENANCE

- a. Clean Motorcycle
- b. Fill gas and oil tanks
- c. Check for gas and oil leaks
- d. Check air filter
- e. Inspect tires and tire pressure; Look for broken spokes and damage to rims.
- f. Turn on all lights and inspect especially stop light.
- g. Check for loose bolts and nuts
- h. Check front and rear brakes
- i. Check clutch and cable
- j. Inspect wiring for loose connections
- k. Check and inspect battery and connections
- l. Inspect and lubricate chain. ($\frac{1}{2}$ In Play)
- m. Check transmission oil level. Remove plug on transmission housing (located on right side below battery) and fill to the bottom of plug threads with same oil used in crankcase.

MOTORCYCLE SCHOOL OF INSTRUCTION

LUBRICATION

- a. The motorcycle must be lubricated every 1500 Mi.
- b. Lubrication and oil change are performed by the department mechanics using a P.M. schedule.

12. DRIVE CHAIN

- a. Check daily and oil when necessary.
- b. The drive chain should be snug, with not more than 1/2 In. of slack.
- c. If in doubt have it checked by department mechanic.

13 IGNITION, POINTS AND PLUGS

- a. Recommended tune up and spark plug replacement is 5000 Mi.
- b. Check spark plug wires daily.
- c. DO NOT change plugs or attempt to tune up or make adjustments yourself! Refer any adjustment or work to the department mechanic.

MOTORCYCLE SCHOOL OF INSTRUCTION

9. MOTORCYCLE TIRES

- a. Keep properly inflated; 26 lbs. in front tire and 28 lbs. in rear tire. These figures are for a man weighing about 200 lbs. Reduce this pressure by one pound for a lighter man.
Tire size is 500 X 16.
- b. Do not ride on a flat tire! Call your command and be guided by instructions.
- c. Bald or badly worn tires or those with brooken or cut sidewalls will be replaced immedately.
- d. Tires must not be changed from one motorcycle
- e. Under ideal conditions, tires should be rotated from front to rear and rear to front every 5000 miles to balance wear caused by constant turning of the front wheel.
- f. Check tire pressure with a gauge known to be accurate, when tire is cold or driven less than one mile.

BRAKES.

- a. The foot brake is located on the right hand side of the motorcycle and operates the rear brake only.
- b. The hand brake is located on the right handlebar and operates the front wheel brake only.
- c. There is a seperate master cylinder on the right handlebar for the front wheel brake.
- e. Both the front and rear brakes are hydrolic.
- f. Both the front and rear brakes are the disc type
- g. Check both brakes after riding through water or after washing to be sure they hold properly.
- h. "Riding" or holding pressure on the brakes will cause the caliper and rotor to overheat!
THIS COMDITON CAN AND ALREADY HAS RESULTED IN BRAKE FAILURE!, in addition to damage to the brake parts.
- i. ONLY brake fluid ot the D.O.T. #3 type (Dept. Of Transportation type #3) may be used in Dept. motorcycles.
- j. ONLY a qualified department mechanic will service the brake system
- k. DISC brakes are self adjusting on department motorcycles and no outside mechanical adjustment is necessary. If the brakes appear to require adjustment or feel "Low" there may be air in the line, or it requires brake fluid.
DETERMINE IF HOSES OR BRAKE SYSTEM IS LEAKING BEFORE OPERATION.

MOTORCYCLE SCHOOL OF INSTRUCTION

NOTES

A. CARE AND MAINTENANCE

The member to whom a department motorcycle is assigned is held responsible for its proper care and maintenance.

1. Oil is changed every 1,500 miles.
2. M.P.4 (Lubrication Record Card) Kept up to date.
3. Oil level must be maintained by a daily check of the dip stick.
4. Only motorcycle oil used. (A 50 weight oil with a paraffin base that is obtained at the Highway Precincts).
5. Clutch
 - a. If clutch requires adjustment, have this done by a Department Mechanic.
6. Battery
 - a. Check daily for proper water level. Keep plates covered with water.
 - b. Keep terminals clean and free from corrosion.
 - c. Check, that bracket is holding battery tight.
7. Carburetor
 - a. When adjustment is required, have it done by a Department Mechanic.
8. Gas and Oil Tanks
 - a. Two tanks: total capacity 5 gallons.
 - b. Shut off valve is located under center of left fuel tank and has two handles
 - c. To shut off turn both valves to horizontal position .
 - d. To open main and reserve tank, turn to the vertical position. Use main tank only!
 - e. Oil tank is located under seat.
 - f. Use the graduated oil dip stick to check oil level.

MOTORCYCLE SCHOOL OF INSTRUCTION

HELMET

1. The first crash helmet was purchased by the Police Department in 1957 and tested on a limited basis until 1958.
Its use became mandatory late in 1958 and by 1960 the State of New York made its use a law.
2. The helmet is constructed of laminated fiberglass with an adjustable headband and nylon chin strap.
 - a. The Nylon chin strap will withstand a pull pressure of 300 Lbs.
 - b. The compression strength of the helmet is in excess of 3 Tons.
 - c. The winter ear flap must be permanently fastened to the helmet with rivets because under certain conditions the helmet may have a tendency to roll forward off the head if the back of the head is struck.
3. A Department Operator while actually operating a Dept. Motorcycle, MUST wear the helmet, securely fastened at all times.
 - a. Operation of a motorcycle with the helmet strap loose or not fastened is dangerous and in violation of the rules, and in an accident situation serious injury may result.

NOTE:

The "Crash Helmet when properly fitted and worn is designed to protect that part of the body that cannot sustain a traumatic injury without risk of death or serious physical or mental impairment.

DO NOT DEFEAT ITS PURPOSE

MOTORCYCLE SCHOOL OF INSTRUCTION

(Tenth Day)

<u>Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0830	60	FINAL LECTURE a. Question and answer session.
0830-0845	15	PERSONAL BREAK
0845-0900	15	EQUIPMENT PREPARATION
0900-1100	120	RIDING INSTRUCTION a. Field trip (Commencement exercise practice)
1100-1200	60	MEAL PERIOD
1200-		COMMENCEMENT EXERCISES
1500-		RETURN TO HIGHWAY SUB-UNIT 2.
1500-1515	15	STORAGE OF EQUIPMENT

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

(Ninth Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0830	60	FINAL WRITTEN TEST
0830-0845	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0845-0900	15	PERSONAL BREAK
0900-0930	30	LECTURE SESSION a. Safety, "out on the road"
0930-1200	150	RIDING INSTRUCTION a. Field Trip b. Submission of mcy license applications.
1200-1300	60	MEAL PERIOD
1300-1500	120	RIDING INSTRUCTION a. Field Trip b. Pick up mcy licenses.
1500-1515	15	EQUIPMENT STORAGE See 1500, 1st day.

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

(Eighth Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0830	60	LECTURE SESSION a. Review of training materials.
0830-0845	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0845-0900	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE.
0900-1000	60	RIDING INSTRUCTION a. Barrier course, Precision Escorts, diag. park.
1000-1015	15	PERSONAL BREAK
1015-1200	105	RIDING INSTRUCTION a. Barrier course- Final road and Field Tests.
1200-1300	60	MEAL PERIOD
1300-1500	120	RIDING INSTRUCTION a. Summ. Enforcement, motorist apprehension.
1500-1515	15	STORAGE OF EQUIPMENT See 1500, 1st day

MOTORCYCLE SCHOOL OF INSTRUCTION

(Seventh Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE
0830-0915	45	RIDING INSTRUCTION a. Barrier course practice.
0915-0945	30	RIDING INSTRUCTION a. Terrain Familiarization See 1300 hrs, 5th day
0945-1000	15	PERSONAL BREAK
1000-1200	120	RIDING INSTRUCTION a. Barrier course maneuvers.
1200-1300	60	MEAL PERIOD
1300-1400	60	RIDING INSTRUCTION a. Summ. Enforcement, motorist apprehension from "chute".
1400-1415	15	PERSONAL BREAK
1415-1500	45	RIDING INSTRUCTION a. Summ. Enforcement, see 1300 hrs.
1500-1515	15	STORAGE OF EQUIPMENT See 1500, 1st day

MOTORCYCLE SCHOOL OF INSTRUCTION

(Sixth Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE.
0830-0930	60	RIDING INSTRUCTION a. Cone course practice. Plus Barriers.
0930-0945	15	PERSONAL BREAK
0945-1100	75	RIDING INSTRUCTION Terrain familiarization See 1300, 5th day + Diminishing distance course.
1100-1200	60	RIDING INSTRUCTION Cone course practice.
1200-1300	60	MEAL PERIOD
1300-1400	60	RIDING INSTRUCTION a. Terrain Familiarization (see 1300, 5th day)
1400-1415	15	PERSONAL BREAK
1415-1500	45	RIDING INSTRUCTION a. Cone course practice.
1500-1515	15	STORAGE OF EQUIPMENT See 1500, 1st day.

MOTORCYCLE SCHOOL OF INSTRUCTION

(Fifth Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING
0830-0945	75	RIDING INSTRUCTION Cone course (See 0830, 4th day)+ "U" turns.
0945-1000	15	PERSONAL BREAK
1000-1200	120	RIDING INSTRUCTION a. Cone course practice, and cone "U" turns left and right.
1200-1300	60	MEAL PERIOD
1300-1400	60	RIDING INSTRUCTION a. Terrain familiarization. Students ride off paved roadways (wooded areas and sand patches.
1400-1415	15	PERSONAL BREAK
1415-1500	45	RIDING INSTRUCTION See 1300
1500-1515	15	STORAGE OF EQUIPMENT See 1500; 1st day

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

(Fourth Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT See 0800, 1st day
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE
0830-0930	60	RIDING INSTRUCTION a. Cone course instruction. Student maneuvers through 9-10 paired cone sets, executing extreme left and light turns. 8 cones set in a straight line at end of course, makes rider weave through, alternating left and right tur
0930-0945	15	PERSONAL BREAK
0945-1200	135	RIDING INSTRUCTION See 0830 (Shift point course, Barricade stop, turn
1200-1300	60	MEAL PERIOD
1300-1400	60	RIDING INSTRUCTION See 0845
1400-1415	15	PERSONAL BREAK
1415-1500	45	RIDING INSTRUCTION See 0845
1500-1515	15	STORAGE OF EQUIPMENT. See 1500, 1st day.

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

(Third Day)

<u>Time Period</u>	<u>Mins</u>	<u>Training Phase</u>
0715-0730	15	ROLL CALL
0730-0800	30	LECTURE SESSION
0800-0815	15	PREPARATION OF EQUIPMENT See 0800 1st day
0815-0830	15	MOVEMENT OF EQUIPMENT TO TRAINING SITE
0830-1000	90	RIDING INSTRUCTION a. Riding, starting, stopping, shifting; 1st through 3rd gear. Prog. serpentine, fig. "8".
1000-1015	15	PERSONAL BREAK
1015-1200	105	RIDING INSTRUCTION See 0830
1200-1300	60	MEAL PERIOD
1300-1415	75	RIDING INSTRUCTION a. Column formation behind Riding Instructor; 1st through 3rd gear maneuvers (turns, direction changes.) Prog. serpentine, fig."8"
1415-1430	15	PERSONAL BREAK
1430-1500	30	RIDING INSTRUCTION See 1300
1500-1515	15	STORAGE OF EQUIPMENT. See 1500, 1st day

HIGHWAY PATROL DISTRICT

MOTORCYCLE SCHOOL OF INSTRUCTION

NOTES

15. When approaching an intersection it is advisable to always be prepared to STOP. This will ensure that intersecting vehicles can be avoided.
16. Depend on peripheral vision instead of constant head turning.
17. While proceeding downhill the force of gravity is adding its pull to the already heavy weight of the motorcycle, thus causing stopping distances to increase.

OPERATOR ATTITUDE

Don't get overconfident- "horsing around" has been found to be a contributory cause of accidents.

Motorcycles should not be treated as toys- over-riding (riding beyond your capabilities) is a primary cause of accidents.

Most accidents are caused- they don't just happen ! Operator error is the MAJOR CAUSE of accidents.

Anticipate the actions of other motorists.
a. Be particularly aware that motorists entering the parkway MAY NOT SEE YOU.

MOTORCYCLE SCHOOL OF INSTRUCTION

PRE-TEST LECTURE

INSTRUCTOR'S NOTES

I. INTRODUCTION

1. As defined in the Vehicle and Traffic Law, a motorcycle is "every vehicle having a seat, or saddle for use of the rider and designed to travel on not more than three wheels in contact with the ground, but this excludes tractors." For purposes of the motorcycle licensing procedure, the definition includes; bicycles with motor attached, motor scooters, motor driven bicycles, mini-bikes and regular motorcycles.

2. DEFENSIVE DRIVING, keeping your eyes moving and to know what is going on around you is the KEYSTONE to safe motorcycle operation. You may detect the intentions of the other driver by the manner in which he grips the wheel. As a motorcycle operator, your biggest concern is that you are not "packaged" in like an auto. If involved in an accident, nine out of ten times you will sustain some injury, so that staying alert, making certain you are seen and always prepared to take defensive action is your JOB.

II. EQUIPMENT

A. Personal Equipment:

1. Helmet

a. Must meet requirements of the commissioner of Motor Vehicles.

b. At least 4" of reflective material on each side.

c. Must be equipped with a chin strap or neck strap.

d. Must be worn by operator and passenger if one is carried.

2. Goggles/Face Shield

a. Must meet the requirements of the commissioner of Motor Vehicles.

b. Motorcycle Operators are REQUIRED to wear approved goggles/ face shield regardless of whether or not there is a windshield on the motorcycle.

MOTORCYCLE SCHOOL OF INSTRUCTION

INSTRUCTOR'S NOTES

- B. Motorcycle Equipment:
1. Adequate brakes.
 2. Horn, bell or other warning device.
 3. A rear view mirror attached to the handle bars. A mirror on each side is helpful, but not required.
 4. A suitable muffler to prevent unnecessary exhaust noises. Muffler cut-outs are prohibited.
 5. A light for the license plate.
 6. 1 (one) approved headlamp.
 7. An approved tail lamp on the rear.
 8. An adequate red reflector on the rear.
 9. Handle bars MAY NOT be more than 15" higher than the motorcycle seat. So called "ape hangers" are not permitted.
 10. A seat and foot rests for the operator.
 11. If passengers are to be carried, a rear passenger seat, hand grips, and foot rests for the passenger.

III. MOTORCYCLE OPERATION

- A. Following distance:
When following another vehicle allow at least;
1. 50' at 20 M.P.H.
 2. 100' at 30 M.P.H.
 3. 300' at 40 M.P.H.
- B. Stopping:
1. Braking:
 - a. Apply the foot brake first, then ease the hand brake down.
 2. DO NOT brake in turns.
 3. In 1966, "Braking tests", conducted by the N. Y. S. Safety Council, revealed that scooters stopped slower than autos and regular motorcycles.
- C. Turning:
1. General:
 - a. Look around, be certain it is safe to turn.

MOTORCYCLE SCHOOL OF INSTRUCTION

INSTRUCTOR'S NOTES

- b. Hand signals
 - 1. Same standard signals required for motor vehicles.
 - 2. Required for stops and turns.
 - 3. Required at least 100' before turning.
 - 4. Use left hand for signalling.
- 2. Left Turn:
 - a. Enter left traffic lane well in advance of turn.
 - b. Signal and then turn when safe to do so.
- 3. Right Turn:
 - a. Enter the turn as close to the right as possible.
 - b. Signal, then turn as close to the right as possible.
- 4. Recommended Practices when Turning:
 - a. Shift body weight in direction of the turn.
 - b. Adjust speed prior to turning. DO NOT ACCELERATE OR BRAKE when turning.
 - c. Disengage clutch until completion of turn.
- D. Passing:
 - 1. Pass on the left side of the vehicle to be passed, and in the adjoining traffic lane. Make certain driver sees you beforehand.
 - 2. DO NOT pass on hills and curves.
 - 3. DO NOT pass cars at intersections.
- E. Operating in Traffic Lanes:
 - 1. Motorcycles are NOT permitted to ride between rows of vehicles in adjacent traffic lanes or between parked vehicles and other adjacent traffic lanes.
 - 2. Motorcycles are NOT permitted to ride more than 2 abreast in any

MOTORCYCLE SCHOOL OF INSTRUCTION

INSTRUCTOR'S NOTES

- one single traffic lane.
3. Recommended practice:
 - a. DO NOT operate in the center of the traffic lane, it is often coated with grease and oil deposits left by passing traffic.
 - b. DO NOT move into the "blind spot" of the vehicle ahead.

 - F. Intersections:
 1. Place where accidents occur mostly.
 2. DONT pass cars stopped at inter- sections because, cars may be stop- ped to allow pedestrians to cross or to allow cross traffic to make turns. Slow down and stop.
 3. When stopping is required, stop BEFORE the crosswalk.
 4. When 2 vehicles approach an inter- section at the same time from different directions, the vehicle on the right has the RIGHT OF WAY.

 - G. Rain:
 1. Hydroplaning:
 - a. Definition: A vehicle's wheels riding up off the ground on a film of water.
 - b. Factors effecting hydroplaning:
 1. Weight of vehicle, the heav- ier the vehicle the less the hydroplaning occurs.
 2. Tire pressure.
 3. Tire depth, the deeper the tire depth, the less the chance of hydroplaning. Water is washed away between the grooves.
 - c. Results of hydroplaning:
 1. Skidding and lack of steer- ing control.
 2. Scooter should not be oper- ated in wet weather. (See Patrol Guide, 103-2, Motor

NOTE:

A pedestrian in a crosswalk at an intersection, with out traffic contro device has the right of way.

MOTORCYCLE SCHOOL OF INSTRUCTION

INSTRUCTOR'S NOTES

- H. Braking:
1. May angle park when parking is otherwise permitted.
 2. One wheel shall touch the curb.
 3. In no event shall any portion of the motorcycle or scooter be more than 6' from curb.
 4. Don't park on grease spots.
- I. Downhill Driving:
- a. Shift to lower gear and provide more room to stop.

IV SAFE DRIVING TIPS

- A. Motorcycles must display at ALL times when operated, a lighted lamp in front and 1 in the rear, and in all cases a red light visible from the rear.
1. Police Department vehicles are NO exception.
- B. Slick surfaces: (wet, loose gravel, etc.)
1. Reduce speed.
 2. Drive straight to maintain control.
- C. Trucks and large vehicles:
1. Do not follow same:
 - a. May throw up stones,
 - b. Vision is limited.
- D. Railroad tracks and metal surfaces:
1. Cross as close to an 90 degree angle as possible.
 2. When crossing a bridge with steel grating, slow down and then move from side to side in your traffic lane and continue over grating in this manner.
 - a. "Steel Deck Bridge" warning sign is diamond shaped, painted in black on yellow.

MOTORCYCLE SCHOOL OF INSTRUCTION

INSTRUCTOR'S NOTES

- E. Road Conditions:
 - 1. Holes, objects on road, etc.
 - a. Be aware of their location and avoid same.
 - b. A Memo / Patrolman's Log entry is required as to post conditions.
- F. Children, Bicyclists, Pedestrians:
 - 1. Provide a wide safety margin, they frequently run or ride without looking and they tend to "freeze" on your approach.
- G. Dogs:
 - 1. Don't try to "brush off" a dog with your feet, you may lose control.
 - a. A short burst of speed will enable you to outdistance the dog.
- H. Autos Discharging Passengers:
 - 1. Operate away from parked autos if in the traffic lane at curb side.

REMEMBER: IN AN EMERGENCY ALWAYS "THINK BEFORE
YOU ACT"

MOTORCYCLE SCHOOL OF INSTRUCTION

ESCORTS

1. PURPOSE, To protect and expedite the movement within the city of heads of state, visiting dignitaries, VIP's, explosives and dangerous materials, funerals, and vehicles of extraordinary size, etc.

2. ASSIGNMENTS, and preparations are made by the C.O.H.D., and in close cooperation with the Intelligence Division of this Dept., the U.S. Secret Service and the U.S. State Dept.

As a general rule, the number of personnel and equipment to be assigned will depend to a great extent on the importance of the person or persons visiting and the emphasis placed by the Secret Service and State Dept.

3. GENERAL GUIDELINES,

a) Once a motorcade position in an escort is assigned that position will be maintained. The only exception will be the personnel assigned as outriders, unless otherwise directed by the superior in charge of the escort.

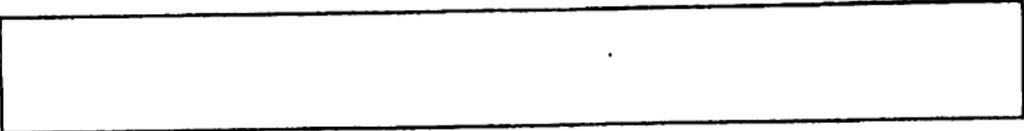
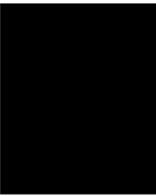
b) Outriders are selected from more experienced P.O.'s and it is their function to insure that the roadway ahead, enterances, exits, and intersections are free of traffic, pedestrians and objects that could interfere with the right of way of the motorcade.

c) All members assigned to an escort on motor cycles will maintain radio communication with the command RMP via T.D. frequency F-2.

d) Members assigned to an escort in an RMP will carry a portable dept. radio tuned to the F-1 frequency for direct communication with the command RMP

e) Never weave or cut in and out of a motorcade. This activity disrupts the motorcade and increases the liklehood of an accident.

f) The function of the rear position motorcycles is to prevent motorists from passing the motorcade.



g) When covering intersections as outriders, use extreme caution when returning to position after the motorcade passes.

h) Never ride abreast of the dignitaries limousine. NOTE: Whenever a head of state visits this city, it is a policy of the U.S. Secret Service to position an automobile (usually a station wagon) to the immediate rear of the dignitaries limousine. This automobile is manned by members of the Secret Service and is is their function to directly protect the dignitary in the event of an attack by means of automatic weapons, etc. This automobile will also barricade the dignitaries limousine in such an event, THEREFORE - NO DEPT. RMP OR MOTORCYCLE WILL RIDE ABREAST OF EITHER THE LIMOUSINE OR THE SECRET SERVICE AUTOMOBILE, OR BETWEEN SAME.

Outrider

Outrider

Wedge Formation

Command R.M.P.

Intelligence Div.
U.S. State Dept.

Dignitaries Limousine
(Principal)

U.S. Secret Service

Back-Up Limousine

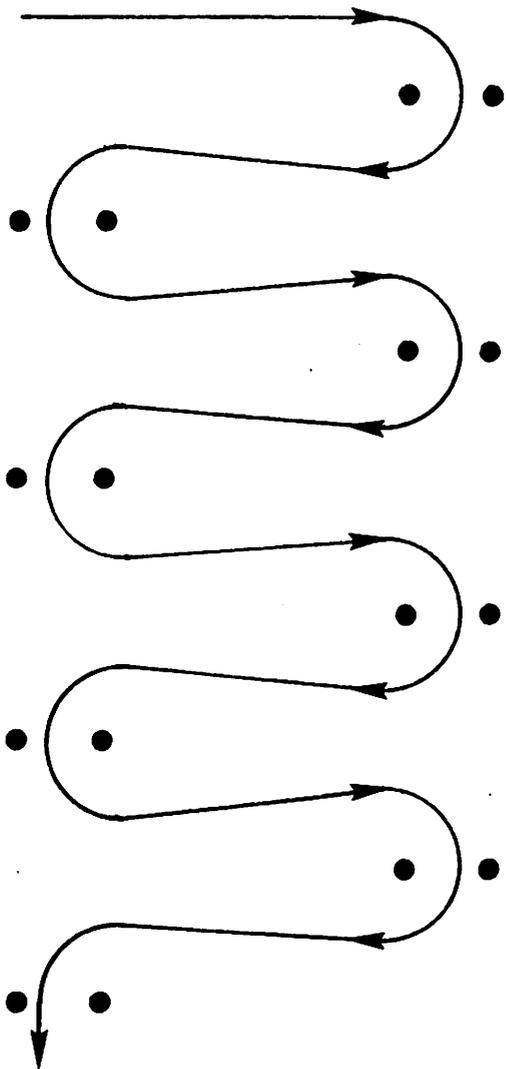
Flank Rider

Flank Rider

Rear Position Riders

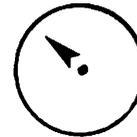
No Dept. Vehicles
in this
area

FIGURE EIGHT'S

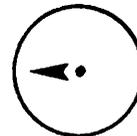


SHIFTING GEARS

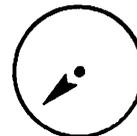
● 4th



● 3rd



● 2nd



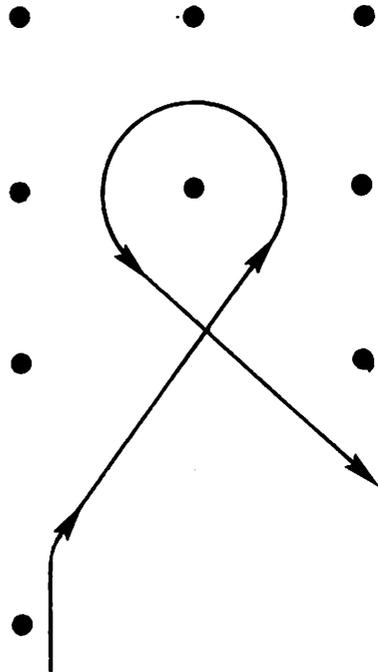
START

● 1st

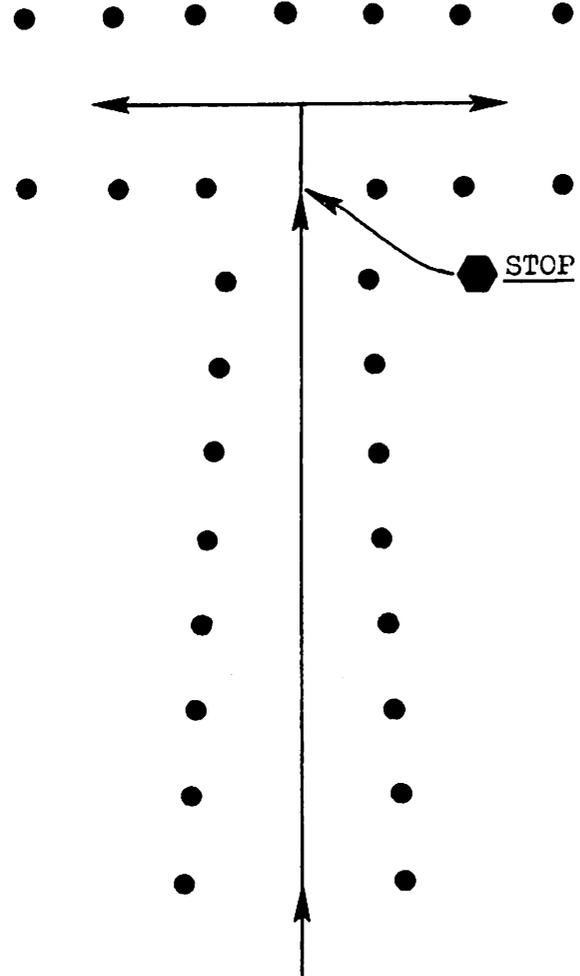


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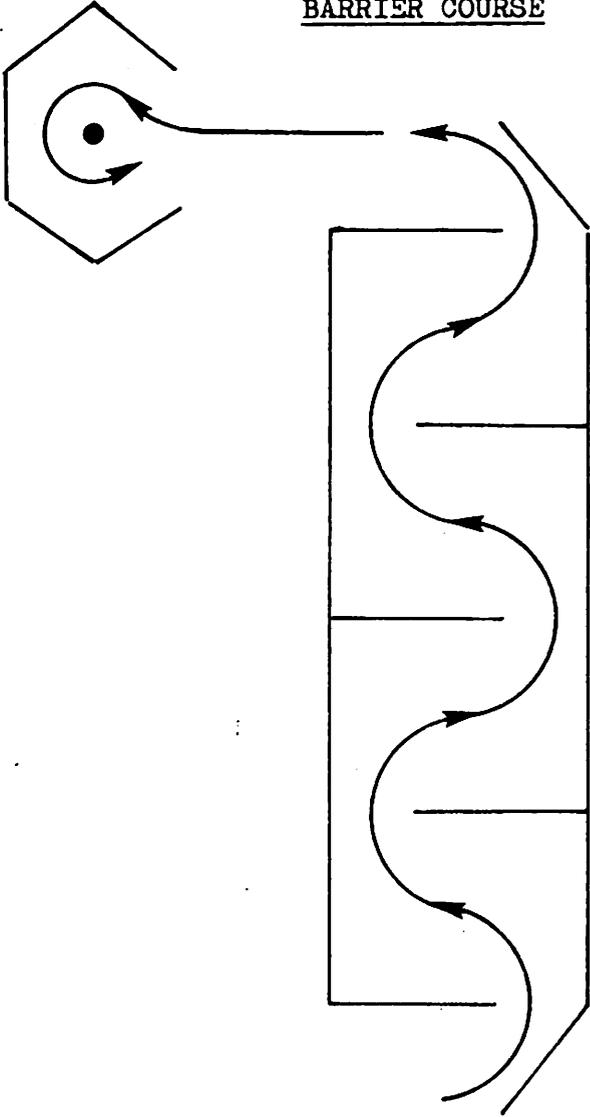
CONE U-TURN CROSSOVER



DIMINISHING CLEARANCE COURSE
WITH STOP - RIGHT OR LEFT TURN



BARRIER COURSE



BARRIER SURPENTINE
WITH CONE OBSTACLES MANEUVER

