

Motorsport in Ontario

MARSHAL'S TRAINING MANUAL



C.A.S.C. Ontario Region

FORWARD

When you become a track marshal you become the first line official of the network of CASC officials which service and operate CASC racing. You are the key link, providing the communications which keep the race running smoothly, and you are the first response to anything which happens on the track.

The marshal does not require a great mass of knowledge or technical skill to do his / her job properly but does require a degree of basic knowledge of procedures and rules and an alertness and dedication to ensure the safety of the marshal and competitor. Marshaling can probably best be described as a conditioned response to what is happening on the track. While marshaling is an enjoyable way of being an active part of the racing scene, it is also a very serious and rewarding activity.

The main purpose of this marshal's training guide is to provide you with the basic knowledge necessary to get you started at the track and to develop your knowledge of safety and procedures which will allow you to develop the skills necessary for you to operate in a safe, skilled manner on the corner. The procedures used by CASC marshals have been developed over many years and are under constant review by both the marshals and other officials to keep them current and to make marshaling, and for that matter, racing in general, as safe as is possible.

Please read this guide carefully and thoroughly, be aware of what it contains, come out to the track and enjoy the world of motor racing. You will be part of a large, well – trained team made up of individuals who enjoy what they are doing and has a lot of fun together.

Chief Instructor
CASC – OR

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PURPOSE OF MARSHALING

The purpose of flagging and communications of marshals is to provide a safe course by:

- Informing the drivers, through flags and other signals, of the condition of the course, the condition of their cars or any other unusual situations affecting the running of the event.
- Informing the Clerk of the Course and other officials, through the communications system, of the condition of the course and the competing cars and of any situation requiring decisions and/or action by race officials.
- Undertaking emergency action as required in order to protect the lives and property of the driver, workers, or spectators in the event of an incident.

MARSHAL QUALIFICATIONS

- Reliability. Be punctual, avoid “no showing”, and follow instructions.
- Common sense, good judgment and the ability to think logically will help you through many situations.
- Knowledge of the operating procedures in this manual and the relevant CASC General Competitions Rules (GCR's) and Race Regulations.
- The ability to work as part of a team structure. There is no room for heroics at the race track.
- All potential marshals must be 18 years of age and must initially complete a CASC approved basic training program. They are subsequently evaluated on their performance prior to being licensed as qualified marshals.

RACE ORGANIZATION STRUCTURE

CLERK OF THE COURSE

The Clerk of the Course is legally responsible for the co-ordination and operation of all track activities including marshals, service crews, competitors, etc.

CHIEF COURSE MARSHAL

The Chief Course Marshal is responsible for the co-ordination and operation of the marshals and is responsible to the Clerk of the Course.

TOWER PHONE OPERATOR

The Tower Phone Operator controls the flow of information relayed over the communications network and reports directly to the Chief Course Marshal.

CORNER SENIOR

The Corner Senior is responsible to the Chief Course Marshal for the safe and efficient operation of the corner that has been placed in his/her charge. The Senior also has the responsibility of establishing a comfortable working environment in terms of ensuring awareness and understanding of procedures by his/her fellow marshals.

PHONE OPERATOR

The Phone Operator is responsible to the Corner Senior and maintains a two-way communication with the Tower Phone Operator, keeps a detailed written account of incidents and situations that occur on the corner, and relays all information to the Corner Senior.

FLAG MARSHAL

The Flag Marshal is also responsible to the Corner Senior. The primary duty of the flag Marshal is to alert competitors of potential danger in the section of track downstream from his/her position.

SAFETY MARSHAL

The Safety Marshal is responsible to the Corner Senior and is wholly concerned with safety on the corner. More specifically, this concern entails his/her own safety, that of fellow marshal and race officials, competitors and spectators, respectively. The Safety Marshal, under the direction of the Corner Senior, is the first to go to the aid of a competitor.

OTHER EVENT PERSONNEL WHO INTERFACE WITH MARSHALS

Starter and Assistant Starter	Medical Crews
Fire Crews	Extrication Crews
Track Service Crews	Tow Truck Crews

OTHER EVENT PERSONNEL WHO DO NOT REGULARLY INTERFACE WITH MARSHALS

Timing and Scoring	Technical Inspection Crews (Srcutineers)
Pit Marshals	Paddock Marshals
Grid Marshals	Stewards
Registration	Secretary of the Meet

ROUTINE PROCEDURES

- On arrival at the track, report to Registration.
- At Registration, each worker must present identification, sign an official insurance release form and receive credentials. Identification should include proof of affiliation to a CASC club and your Marshal License.
- Signing the insurance waiver entitles workers to receive insurance coverage benefits arranged by the organizer if they are injured while on duty at the racetrack.
- Once you have your credentials, check in at the designated “staging area” for the marshals.
- Find out what corner you are assigned to and check to see if any equipment needs to be taken out.
- Attend the morning briefing (if one has been scheduled).

PERSONAL EQUIPMENT

- Whistle
- Gloves - all leather or leather palms

Note: The above two items are considered mandatory

- Large sturdy bag (preferably waterproof) [or a 5 gal. pail]
- Sturdy, sensible shoes or boots that will give support and protect your feet (work boots are ideal)
- Rain Suit - pants and top (avoid yellow or red)
- Garbage bag
- Hat (preferable peaked baseball cap)
- Non-alcoholic fluids (water, juice, etc.)
- First Aid items - Band-Aids, aspirin, lip balm, allergy kits, sanitary products
- Super scissors
- Sun Screen
- Sunglasses
- Ear Protection
- Dry socks, warm jacket, extra sweaters, mitts
- Pencils, pens, pocket knife

You should expect to be trackside for the whole day. It is therefore recommended that you bring anything you might want or need (i.e. drinks, snacks, etc.)

CORNER EQUIPMENT

Each station will have the following equipment in good working order prior to racing commencing each day:

- Phone headset or radio
- Flags (2 yellow, 1 yellow and red striped, 1 white, 1 green, 1 blue, 1 red, 1 black).
- A minimum of 2 ten-pound dry chemical fire extinguishers. Check pins and charge gauges each day.
- A push type broom.
- Oil/Gas absorbing materials i.e. cement, sand, kitty litter.
- Clipboard or binder with report forms, personnel sheets, etc.

CORNER / STATION DEFINITION

The flag signaling JURISDICTION of each corner station extends from the flag position of that station to the flag station of the next station in the race direction.

GENERAL TRACKSIDE PROCEDURES

Yours Senior will conduct a morning briefing, assess each person's qualifications and position and rotate staff as possible.

- Be sure your area of track is clean. If you need to, sweep as soon as possible. If you need assistance, call for it as soon as possible.
- Stay alert at all times even after the checkered signal has been given by the Senior.
- NEVER turn your back on traffic.
- Stay on your feet while cars are on the track.
- Do not lean against guardrails or concrete barriers. Leave an appropriate safety cushion.
- Watch racing vehicles for mechanical difficulties.
- Watch track for oil and debris.
- Watch drivers for rule infractions. (Particularly if the yellow flag is displayed.)

IMPORTANT NOTE **G.C.R., SECTION 3.4.4 & 3.4.5**

3.4.4 ALCOHOLIC BEVERAGES

Consumption of alcoholic beverages by any Participant is expressly prohibited until all Competitions are concluded for the day. Consumption by an Official is prohibited until that individual Official's duties have been completed for the day.

3.4.5 NARCOTICS AND ILLEGAL SUBSTANCES

The use of any narcotic or illegal substance as defined in law, or the improper use of legal substances by any Participant prior to, or during a Competition, is specifically prohibited. The Stewards of the Event, on the advice of the Event Chief Medical Officer may prohibit any individual suspected of consuming any substances from competition or participation in that Event. Further disciplinary action may also be taken by CASC. Such action is not subject to Appeal.

REMEMBER
Corner Marshals are "PARTICIPANTS"

SAFETY PROCEDURES

- Always check your extinguisher at the start of the day.
- Wait for the dust to settle before responding to an incident. If the incident is not in your specific area, do not leave your area. Look to your Senior for direction.
- Do not cross the track unless signaled to do so by your Senior.
- Always take your extinguisher to an incident, and bring it back.
- Keep the car between you and oncoming traffic.
- Call for emergency crews if required.
- Do not touch an unconscious driver unless you have been trained to do so.
- The second safety marshal should spot and be fire back-up.
- Do not stand behind exhausts - especially turbo.
- Be sure ignition is off. Look for a KILL Switch on the roll bar for open wheel cars, the front cowl for racing sedans/sports cars, or on the handle bar of motorcycles.
- Watch for hot parts when pushing cars.
- When moving a motorcycle, you may have to put in the clutch.
- When a motorcycle is down on the racing surface, move the bike first and attend to the rider second.
- Give tow signals and vehicle numbers as soon as possible.
- Advise your Senior of track damage as soon as possible.

EMERGENCY SITUATIONS

- Be sure that your signals are repeated back to you by the Senior or the phone operator.

- When emergency crews arrive, direct them to the scene and allow them to take control of the incident. Be prepared to assist if required.
- Do you have a FIRE?
Assess if fire truck is required before using extinguisher. Stay upwind when using extinguisher but stay facing traffic unless you have a spotter. Avoid inhaling powder and watch for flashbacks.
- Do you need an AMBULANCE?
Call immediately if necessary but keep driver's condition foremost in your mind. If the driver is not in immediate need of assistance but you feel he/she should be checked out by a medical crew call for a mandatory medical.
- Do you need EXTRICATION?
Call immediately and provide first aid if qualified until help arrives. When emergency crews arrive let them take control and be prepared to assist if required.

PHONE / RADIO COMMUNICATION PROCEDURES

GENERAL

YOU ARE THE EYES AND EARS OF CONTROL

- On arrival at your station, hook up the phones and report in to Control.
- Be listening all the time.
- Speak loudly and clearly and make sure that the mouthpiece is almost touching your lips.
- Always identify yourself, give flag status and wait for acknowledgement from Control before giving your message - there can be up to 20 people using the system.
- Keep your Senior informed of all messages and information given - write down all messages for further reference.
- Return all emergency hand signals given.
- Advise Control as soon as possible if a tow truck, clean up or repair work are required and be as specific as possible.
- Never leave your position except for personal safety.
- Never interrupt another corner's call unless your call is an emergency and theirs is not.
- Do not call during tracking for pursuit, last lap or black-flagging unless you have an emergency.

TERMINOLOGY

- All numbers are reported by digit i.e. 32 = three two

- Key phrases
 - Driver's right
 - Driver's left
 - Race direction
 - Counter race
 - Pulled off
 - Two wheels off
 - Four wheels off
 - Spun and continued
 - Understood
 - Hold
 - Will advise
 - Rider up
 - Rider down
 - Driver in car
 - Driver out of car

COURSE CHECKS

- Used by Control to very quickly give or receive information around the entire track - to see if the track is ready for racing, to check flag status of all corners, to check that messages have been received and understood.
- If a message is not understood, say "hold" and Control will come back to you.
- If you miss your order, come in at the end of the course check.

Course checks must be fast and sharp!

INCIDENT REPORTS

- Assess the situation quickly before you call it in.
- Be brief and accurate.
- There are five key pieces of information that Control requires in your initial call:
 1. Your corner number and the flag status.
 2. The nature of the incident - what happened.
 3. Driver's right or left.
 4. On or off the racing surface - use landmarks as reference.
 5. Driver in or out of the car.

EXAMPLE:

Control, this is corner 5, single waved yellow.

GO AHEAD FIVE.

Car one six, white, spun and hit guardrail, driver's left in front of phone station. Car is just off the race surface. Driver is in the car. Will advise.

INCIDENT REPORTS (Cont'd)

(Be specific as to location in the station i.e. use landmarks)

- Keep Control updated as more information becomes available or new developments occur. Always inform Control when your flag status changes.
- The phrase “we have a car off” is totally useless to Control - never use the word “off” by itself.

REQUEST for AMBULANCE / FIRE / EXTRICATION

- These vehicles are requested via hand signals from your crew and the approval of your Senior.
- You may break into any message with an emergency call (except another corner’s emergency call). An emergency call takes precedent over all other messages.
- Begin with the words “EMERGENCY EMERGENCY”.
- Identify your corner and flag status.
- Specify the vehicle(s) you require and the location (driver’s right or left)
- Specify if the driver is in or out of the car.

EXAMPLE

EMERGENCY EMERGENCY. This is corner 3 waved yellow. We need an ambulance driver's right. Driver is in the car.

- Control will dispatch the appropriate vehicle(s) either over the phone line or on a separate radio network.
- All corners must track emergency vehicles.
- It is imperative to advise Control of the arrival and departure of emergency vehicles in your corner.
- Never give or ask the condition of the patient over the phones.

OTHER STANDARD TRACKING PROCEDURES

The following procedures are either self-explanatory or are covered in a morning phone briefing by the Tower Phone Operator:

Last car on track
 Black flag/meatball
 Pace laps/race start
 Checked flag
 Always listen for flag status at adjacent corners

FLAGS AND THEIR MEANING

See attached Race Regulations Appendix “J”.

GENERAL FLAGGING PROCEDURES

- Keep flags out of sight when not in use.
- Flag only those incidents that are past the flagging position.
- Do not flag incidents that are well off the racing surface.
- When flagging alone, NEVER TURN YOUR BACK TO ONCOMING TRAFFIC.
- Always face oncoming traffic when waving the yellow flag.
- DO NOT LEAVE your flagging position (except for your personal safety) to attend to an incident. Your function is to warn drivers of conditions in your corner station.
- Lights are sometimes used to signal the flagger.
- When enough personnel are available, face-to-face flagging is used. One flagger holds the green and the white and watches oncoming traffic. The other flagger holds the yellows and watches for traffic through the corner and the Senior for hand signals. The flagger facing oncoming traffic is responsible for the safety of both flaggers.

LIGHTS

Lights are used in place of flags for night racing. Use of these will be covered by your Senior in his/her briefing if applicable.

HAND SIGNALS FOR FLAGS

STEADY YELLOW

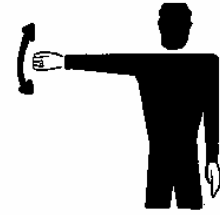
Arm held at right angles to the body in steady



position

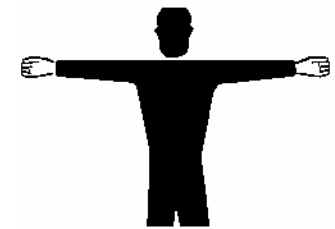
SINGLE WAVED YELLOW

One arm held outright and waved vigorously up and down



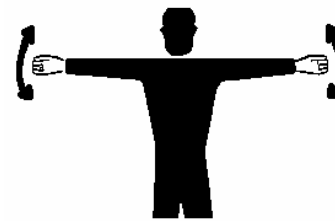
DOUBLE STEADY YELLOW

Both arms held outright and steady.



DOUBLE WAVED YELLOW

Both arms held outright and waved vigorously up and down.

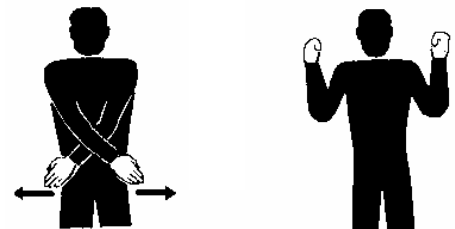


GREEN

a. Both hands across lower body and moved rapidly from side to side across the front of the body (all clear)

a.

b. Followed by both hands held in front of your face (as if holding a flag).



WHITE

Hand slapping or grasping leg of coveralls.



RED & YELLOW STRIPES

Hands held in large circle to the side, fingers interlock.



RED

One hand on top of head, the other hand drawn across throat and remaining at the throat.



SAFETY HAND SIGNALS

AMBULANCE

Hands should be clasped or crossed high above the head.



MANDATORY MEDICAL

Both hands across lower body and held steady.



DEBRIS ON CIRCUIT

- a. The circling of the arms mocking the letter "o" at the side of the body indicates a slippery course or debris on the course.
- a.
- b. Gesture away from the debris



EXTRICATION REQUIRED

Arms extended out to the side of the body in a scissors-like fashion indicates that extrication (jaws of life) is required.



ALL CLEAR

Both hands across lower body and moved rapidly from side to side across the front of the body.



FIRE TRUCK

Rotary movement of either arm above the head.

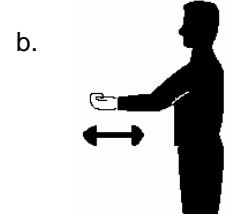
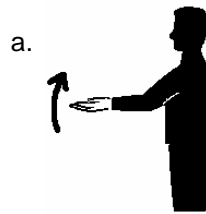
OTHER HAND SIGNALS

TOW TRUCK

Arms held out at right angles to the body forming the letter "T", followed by indicating the type of tow required.



a. A lift tow is indicated by raising both extended arms in front of the body from knee to shoulder level.



b. A pull tow is shown by putting both arms straight out in front of the body and pulling in towards the chest.

VEHICLE NUMBER

a. To start, cross arms in front of chest.

a.



b. The hand is pumped up vertically up and down from the shoulder to indicate the number. b.



c. Zero is shown by sliding one hand from shoulder to wrist. Alternate hands for each digit.

PHONES INOPERATIVE

Both hands raised to ears and moved in and out.



HAND SIGNALS TO DRIVERS

YOUR CAR IS ON FIRE

Hold up your fire extinguisher

AVOID THIS PART OF TRACK

Large arcing pointing motion to direct driver to desired portion of the racing surface.



APPENDIX "J"

FLAG AND LIGHT SIGNALS (*AND RULES OF THE ROAD - not included*)

1. GENERAL

Signals are given in daylight by different coloured flags, possibly aided by lights. Yellow lights at each marshal's post are obligatory for Events run at night.

2. FLAG AND LIGHT SIGNALS

The minimum size of the signaling flags is 600 mm X 800 mm. The red flag will measure 800 mm X 1000 mm.

3. FLAGS USED EXCLUSIVELY ON THE INSTRUCTIONS OF THE CLERK OF THE COURSE

3.1 STARTING FLAG

Either the green flag or the Canadian National flag will be used. Some Races may be started by using a light system.

3.2 BLACK AND WHITE CHECKERED FLAG

It indicates the end of a Competition session when waved at the finish line or other location specified in the Supplementary Regulations.

3.3 RED FLAG

Waved at all marshal posts and by the Starter, it informs all Drivers to cease racing and slowly proceed around the Course to the Start/Finish unless directed otherwise by officials. Drivers shall be prepared to stop at any time. The lap on which the flag is displayed will not be scored.

3.4 BLACK FLAG

3.4.1 Displayed at the start / finish line or other location specified in the Supplementary Regulations and accompanied by a number on a board, it informs the Driver of the Car designated by that number, to return to the pits at the conclusion of the current lap and await instructions from the Officials.

3.4.2 Displayed at the start / finish line accompanied by the word "ALL" on a board, and at all marshal posts, informs all Drivers that the current Course session has been halted and that they shall return to the pits at the conclusion of the current lap.

3.5 BLACK AND WHITE FLAG

Divided diagonally into black and white halves, shown motionless at the start / finish line or other location specified in the Supplementary Regulations, and accompanied by a number on a board, it informs the Driver of the Car designated by the number that his / her conduct or driving has been observed as being unsporting or unsafe. It is a warning; if the behavior continues, the Driver may be shown the black flag.

3.6 BLACK FLAG WITH ORANGE DISK

The orange disk shall be 400 mm in diameter. Shown motionless at the start / finish line or other location specified in the Supplementary Regulations, and accompanied by a number on a board, it informs the Driver of the Car designated by the number that the car has mechanical problems likely to endanger the Driver or others. The Driver shall stop at his / her pit on the next lap.
NOTE: As soon as the decision to display this flag has been taken, the Driver's pit Crew should be notified in order that they are able to also display a "stop" signal.

4. FLAGS USED AT MARSHALS' POSTS

Flags waved by marshals may be shown either motionless or waved. A waved flag emphasizes the flag's basic meaning.

4.1 YELLOW FLAG

Any yellow flag is a signal of danger of any nature at or beyond the station displaying the flag.

*"Upon reaching either a waved or steady yellow flag, drivers must slow down and proceed through yellow zones in single file, which may be staggered."*¹

MOTIONLESS:

Take care, danger, slow down.

No passing from the yellow flag until completely past the emergency area(s). When the yellow flag is held "motionless" or "steady" it shall also be moved with a side-to-side rocking motion.²

Note: A Driver may encounter several yellow flags before reaching the emergency area. The requirements are the same - slow down, no passing.

WAVED:

Great danger, slow down, be prepared to stop.

No passing from the yellow flag until completely past the emergency area(s).

Note: At an emergency area, there may be multiple cars involved in an incident. It is the driver's responsibility not to pass until fully past the end of the emergency area.

DOUBLE YELLOW: Displayed at all stations

Indicates the entire course is under a full yellow condition. Slow down, no passing. Shall be used with or without the pace (safety) car.

- 4.1.1 So as to be able to inform Drivers of a new danger of which they are not aware occurring in the same sector, the yellow flag shall be waved for two laps, shown motionless for two laps and then withdrawn, even if it has proved impossible to remove the obstacle. If it is withdrawn without displaying a subsequent green flag, it means that the condition of the Course in that sector shall remain as during the previous two laps for the remainder of the Competition. If withdrawn and replaced with a green flag shown motionless for two laps, it indicates that the condition of the Course has returned to its pre - incident state.
- 4.1.2 When necessary during the display of a yellow flag, Drivers shall be instructed by means of hand signals to keep to the side of the Course that is not obstructed. If the Course is very badly obstructed, but not sufficiently to warrant the stopping of the Competition, two yellow flags may be used at the same post to emphasize the danger. Two yellow flags will also be shown if the Course is entirely obstructed until the Clerk of the Course orders the stopping of the Competition.
- 4.1.3 To allow Drivers to observe proper caution before an incident, preceding posts may display motionless yellow flags. The use of such forewarning flags is at the discretion of the Clerk of the Course.
- 4.1.4 If the debris from an incident is scattered past the post following the incident, that post shall also display a yellow flag.
- 4.2 **YELLOW FLAG WITH RED STRIPES**
The yellow and red striped flag informs Drivers to take care. It is used to warn of a slippery surface such as caused by the presence of oil, water, and / or debris on the Course surface. The flag shall be displayed for four laps or until the surface returns to normal.
- 4.3 **GREEN FLAG**
The green flag shall be displayed to replace the yellow flag at the site of an incident as soon as the Course has been cleared and will be shown for two laps.
- 4.4 **WHITE FLAG**
The white flag informs Drivers that they are about to overtake a vehicle which is traveling on the Course at a much slower speed than the Competitors. The white flag shall be shown when a service vehicle is on the Course or when a competing Car is moving at a reduced speed.

The white flag shall be waved as soon as the slow-moving vehicle has gone past the flagger's post and this shall continue until the vehicle reaches the following post, then shown motionless

while the vehicle is crossing the next sector then withdrawn. If the vehicle stops on the Course, the white flag shall immediately be replaced with a yellow flag.

4.5 **BLUE FLAG**

The blue flag informs Drivers that they may be about to be overtaken by a faster Car. When a blue flag is waved, it draws the Driver's attention either to the closeness of the Car about to overtake, or to the high speed at which it is approaching.

The blue flag may be shown motionless when the faster Car is still some distance away and when the flag marshal feels that overtaking will take place in the following sector.

5. LIGHT SIGNALS

5.1 When light signals supplement flag signals, they shall comply with the following specifications:

A. The light signals may replace the yellow and green and red flags.

B. The installation shall present three grouped lights, two yellow and one green. The yellow lights shall be spaced so as to ensure that the presence of two lights is easily recognizable. A red light may be included, to be operated solely by Race Control simultaneously with red lights at all other posts.

5.2 Steady lights shall have the same meaning as steady flags and flashing lights shall have the same meaning as waved flags.

5.3 For night racing there shall be, at minimum, yellow lights controlled by each post.

References

1. Ref CASC-OR Race Regulations 2004
2. Ref 2008 Race Regulations Appendix J, paragraph 4.1.1