Appendix H

TRACK CONTROL AND FLAG SIGNALLING

Articles 1 and 2 below are a guide to CAMS' requirements for Track Control personnel duties and facilities which should be provided.

Article 3 is an extract from the Appendix H to the International Sporting Code, with some amendments to suit Australian motor racing conditions.

1. TRACK CONTROL MARSHALS – RESPONSIBILITIES

Track Control Marshals are a vital part of motor racing operations. They are stationed at Marshal Posts around the track and their responsibilities include:

(i) immediately to report to Race Control incidents or accidents occurring within the area controlled by the post concerned;

(ii) to suggest to Race Control the mobilising of service vehicles, ambulance, fire-fighting apparatus or, in case of unruly crowds, a police car;

(iii) to ensure that the race is run in a sportsmanlike and fair manner, and to correct misbehaviour either by flag signal or by report to Race Control;

(iv) to protect drivers from any danger or difficulty which they may be unable to foresee;

(v) to enquire promptly into the stopping of any car, to remove it from the track and, if necessary, to announce its withdrawal to Race Control;

(vi) to clear and clean the track after any accident, oil-spill or spreading of gravel or stones.

2. TRACK CONTROL MARSHALS – FACILITIES

In order to discharge their responsibilities as outlined above, Track Control Marshals must be provided with appropriate facilities and equipment, which must include:

(i) **Track observation posts,** the position of which shall be chosen to ensure that:

(a) no section of the track is unobserved;

(b) each post may communicate by sight with both the preceding and the following one.

If on straight sections of the track, the main posts are too far from one another to ensure quick action in the case of accident, supplementary posts must be added between the main ones.

(ii) **Communication:** Each main post must be able to communicate by speech with Race Control.

(iii) **Staff:** Each main post shall be commanded by a track marshal, known as the Post Chief, who shall have a deputy and a staff, preferably of three other persons. Two of these latter shall use the flags according to the instructions of the marshal or his deputy, and the others shall be available for the following duties:

(a) Under the protection of the relevant signals they shall see that any car stopping in their section of track is pushed to the side of the track without restarting the engine;

(b) they shall enquire as to the reason for such stop, and report to the Post Chief the reason and the intention or otherwise of the driver to withdraw;

(c) they shall assist any injured driver, and shall if possible prevent his removal further than to the side of the track and any change of his posture;

(d) they shall immediately report to the Post Chief any information they may gather;

(e) they shall attempt to clean up any oil spilt by spraying the pool of oil with an absorbent substance and then removing the mixture with spade and broom.

All persons shall remain behind the protection provided unless directed otherwise by a more senior official. No person shall move onto the track unless specifically directed to do so by the Clerk of Course or his delegate.

The flag marshal shall use the flags according to the instructions of the Post Chief. One flag marshal at least must be visible to the drivers, even when not signalling, to signify that the track is controlled.

(iv) **Closing of the track:** The most important things to do for the safety of the track are to ensure before the start of every race:

(a) that the track is quite free from any obstacle;

(b) that officials are properly posted;

(c) that all entrances to and exits from the track are closed, either by the police or officials appointed for the purpose.

To effect this, a course car displaying a red flag shall cover a last reconnaissance lap, during which the following precautions must be observed:

- the course car closing the circuit must **NEVER** overtake and leave behind any other vehicle running on the track (eg, a police car checking police position, and so on);
- the driver of the course car must make a **PERSONAL** report to the Clerk of Course.

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(v) **Opening of the track:** After the end of the meeting or when a long break is anticipated, the Clerk of Course or his nominee shall open the road by completing a lap of the course in a car displaying a green flag. This signal indicates that service vehicles may use the track, and that marshals may approach and work on the track, eg, to move broken-down cars.

3. SIGNALLING

In the supervision of the track, the Clerk of Course (or his deputy) and the marshal posts rely largely on the use of signals to contribute to the drivers' safety and enforce the regulations.

Signals are given in daylight by the different coloured flags which may be supplemented, or under some circumstances replaced by lights.

It is necessary to warn drivers of any modifications made to the course arrangements since they became familiar with the track in practice etc. Should some such particular abnormality become permanent, there is no point in continuing to signal it for more than two laps, as by that time drivers should be familiar with it and the flag concerned then becomes available for the use in other cases.

Black and white signal boards of similar dimensions to the flags may also be used for certain signals: these should be clearly specified in the Regulations for the event concerned.

At night the flags may be replaced by lights and reflective panels, but all drivers must be made aware of this at a briefing beforehand. Yellow lights at each post are obligatory for events run at night (see 3.2).

It shall be deemed a serious breach of these Rules if a driver fails to take any action stated herein to be required by the display of a flag or signal, and the Stewards of the Meeting shall be deemed to be vested with the discretion as to whether such failure has occurred.

3.1 Flags: The minimum size of all flags is 600mm x 800mm except the red and chequered flags which should be at least 800mm x 1000mm (please refer to the introduction of this manual for visual references to the principle flags used).

3.1.1 Flag signals to be used by the Clerk of the Course or his deputy at the start line:

(a) **National flag:** This flag is normally used to start the race if the starting lights are not functioning. The starting signal, using the flag, should be given by lowering the flag, it having been raised above the starter's head after all cars are stationary. It shall be raised for between three and five seconds before being lowered.

Should the national flag not be used for any reason, the colour of the flag (which should not cause confusion with any other flag described in this Chapter), should be specified in the Supplementary Regulations.

(b) **Red flag:** This flag should be waved at the start line when it has been decided to stop a practice session or the race using other than a chequered flag. Simultaneously, each flag post around the circuit should also wave a red flag.

The red flag may also be used by the Clerk of the Course or his nominee to close the circuit.

(c) **Black and white chequered flag:** This flag should be waved to signify the end of a practice session or the race. All competitors must cease racing after crossing the Finish Line when this flag is displayed and proceed to the pit/paddock area by following the track, or as directed by officials.

(d) **Black flag:** This flag should be used to inform the driver concerned that he must stop at his pit or at the place designated in the regulations on the next approach to the pit entry. If a driver fails to comply for any reason, this flag should not be shown for more than four consecutive laps.

The decision to show this flag rests solely with the Stewards of the Meeting, the team concerned will immediately be informed of the decision. Where regulations for an event specify that the Clerk of Course may use the Black Flag in certain circumstances, the Stewards will be deemed to have authorised the use of that flag [please refer to Notes].

(e) **Black flag with an orange disc 400mm in diameter:** This flag should be used to inform the driver concerned that his car has mechanical problems likely to endanger himself or others and means that the he must stop at his pit on the next lap. When the mechanical problems have been rectified to the satisfaction of the Chief Scrutineer the car may rejoin the race [please refer to Notes].

(f) **Black and white flag divided diagonally:** This flag should be shown once only and is a warning to the driver concerned that he has been reported for unsportsmanlike behaviour [please refer to Notes].

NOTES

1. These last three flags (d, e & f) should be shown motionless and accompanied by a black board displaying in white the number of the car of the driver concerned.
2. Normally the decision to show the last two flags (e & f) rests with the Clerk of Course, however it may be taken by the Stewards of the Meeting provided that this is stipulated in the regulations. The team concerned will immediately be informed of the decision.
3. These flags may also be displayed at places other than the start line should the Clerk of Course deem this necessary.

3.1.2 Flag signals to be used at flag posts:

(a) **Red flag:** This should be shown waved only on instruction from the Clerk of Course when it becomes necessary to stop a practice session or the race by other than the chequered flag. All drivers are required to slow down immediately and proceed to the pit lane (or the place foreseen by the regulations of the Event), and must be prepared to stop if necessary. Overtaking is not permitted.

(b) **Yellow flag:** This is a signal of danger and should be shown to drivers in two ways with the following meanings:

- **Single waved:** Reduce your speed, do not overtake and be prepared to change direction. There is a hazard

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beside or partly on the track.

- **Double waved:** Reduce your speed, do not overtake and be prepared to change direction or stop. There is a hazard wholly or partly blocking the track.

  Yellow flags should normally be shown only at the marshals' post immediately preceding the hazard.

  In some cases however the Clerk of the Course may order them to be shown at more than one marshals' post preceding an incident.

  Overtaking is not permitted between the first yellow flag and the green flag displayed after the incident.

  Yellow flags should not be shown in the pit lane unless there is an incident of which the driver should be made aware.

(c) **Yellow flag with red stripes:** This should be shown motionless to inform drivers that there is a deterioration of adhesion due to oil, water, dirt etc on the track in the area beyond the flag.

This flag should be displayed, for at least (depending on the circumstances) four laps unless the surface returns to normal beforehand. It is not however necessary for the sector beyond where this flag is being shown to show a green flag.

(d) **Light Blue flag:** This should normally be waved, as an indication to a driver that he is about to be overtaken. It has different meanings during practice and the race.

At all times: A stationary flag should be displayed to a driver leaving the pits if traffic is approaching on the track.

During practice: Give way to a faster car which is about to overtake you.

During the race: The flag should normally be shown to a car about to be lapped and, when shown, the driver concerned must allow the following car to pass at the earliest opportunity.

(e) **White flag:** This flag should be waved and is used to indicate to the driver that there is a much slower vehicle on the sector of track controlled by that flag post.

(f) **Green flag:** This should be used to indicate that the track is clear and should be waved at the flag post immediately after the incident that necessitated the use of one or more yellow flags.

It may also be used, if deemed necessary by the Clerk of Course, to signal the start of a warm-up lap or the start of a practice session.

3.2 Light signals: When light signals are intended to supplement, or under some circumstances to replace, flag signals, the following requirements should be respected.

3.2.1 Light code:

- lights may replace waved red, yellow, green, blue or white flags;
- if a double waved yellow flag is deemed necessary this should still be shown;
- the installation should include two of each colour to be used;
- lights should be spaced so as to be a distinct flashing pair, they should not appear to merge;
- red and yellow lights should not be positioned next to each other.

3.2.2 Light properties:

- lights should flash alternately at 3-4Hz;
- the type of light used should give instantaneous light, with little or no rise time;
- each light should be able to give at least 70° visual range;
- 360° lights should not be used;
- for maximum colour contrast all lights should be mounted on a matt black background;
- lights should be fitted with a repeater which will inform the following marshals post of their activation;
- the lights used should have sufficient colour saturation to ensure they cannot be mistaken for another colour under all ambient light conditions.

3.2.3 Light position:

- lights should be positioned no more than a 30° angle from the main line of sight, the racing line;
- lights should always be angled in order that the maximum viewing surface is visible for the longest period of time ;
- lights should be equipped with some form of anti-glare to avoid low sun angles causing difficulties.
- lights should be mounted on a black background.

3.2.4 Light operation:

- red lights should only be operated from race control;
- all other lights may be operated by marshals or from race control;
- each control box should be designed so as to avoid the possibility of accidental operation and should incorporate repeater lights;
- an emergency power supply should always be available.

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4. STARTING LIGHTS

When lights are installed for the starting of races, the following requirements should be respected.

4.1 Meanings: The lights should have the following meanings:

RED lights illuminated: Remain stationary and prepare to start racing.

RED lights extinguished: Start racing.

GREEN lights illuminated: The race has started.

Note: It is not compulsory to show green lights.

YELLOW flashing lights illuminated: Remain stationary and switch off engines (if these lights are switched on after the red lights, the red lights must remain switched on).

Normally, the time lapse between switching on the red lights and extinguishing them will be between three and five seconds. The yellow lights at the start should not be used at any other time during an event.

4.2 Location: All lights used for signalling at the start of a race should be clearly visible to all the drivers seated in their cars on the grid in the normal driving position.

The red lights should be mounted directly above the green lights.

The yellow flashing lights may be mounted above or beside the red/green lights.

4.3 Specification: The lights should be as large and bright as is possible and practical and at least as large and intense as the permanent traffic lights used to control public roads. All the lights should be duplicated, in case of bulb failure.

The switch circuit should enable any of the following combinations:

- all lights off,
- red lights on alone,
- red lights replaced by green lights (one switch operation),
- yellow flashing lights on alone,
- red lights and yellow flashing lights on together (separate switches).

4.4 "5 Seconds" Board/Signal: When lights are used to give the start, the starter will display a "5 SECONDS" board/signal when the last cars arrive at the back of the grid, after the formation lap, to warn the front rows that there are five seconds to go before the red lights are shown.

5. BOARD SIGNALS

Before the start of a circuit race, board signals may be displayed to the drivers by an official under the orders of the Starter, which boards shall carry respectively the figures 3, 2 and 1, and which may be displayed approximately three, two and one minutes respectively before the start to indicate the number of whole minutes remaining before the start or the commencement of the warm-up lap.

The figures shall be large, clearly legible to a driver at a distance of 60 metres in daylight, and shall not be accompanied by any advertising matter on either side of the board.

The holding aloft of the one-minute board shall in any case be mandatory, and shall denote that the field is therefore under the Starter's Orders (NCR 109). No car may thereafter join the field unless specified otherwise in Supplementary Regulations for the event.

A **"DELAY START"** board shall be provided for use by the Starter, or at his direction, as provided for in 3.1(i) of this Appendix.

The number to be used in conjunction with the black and white triangle flags and the black flags (see 3.1(i)) and the "one minute penalty" sign, shall be:

- white in colour;
- 300mm high and of 50mm stroke width;
- displayed on a solid black board;
- impervious to rain and firmly attached to the board.

The holding aloft of a black board with the words **"TAIL LAMPS ON"** shall require competing drivers to switch on the car's tail lamp/s.

A board carrying the words **"ONE MINUTE PENALTY"** shall be shown to all drivers in the race, in conjunction with the relevant car number, to indicate that the penalty has been applied.

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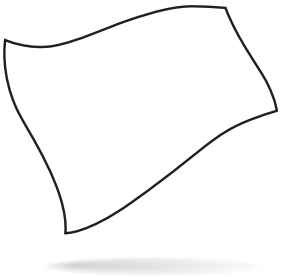
Flag Signals

The illustrations below provide a quick colour reference to the flag signals set out in Appendix H.
Refer to "Track Control and Flag Signalling (Appendix H to the NCR)" in "Race" in the CAMS Manual of Motor Sport for full information on these and other signals which are used in motor racing.

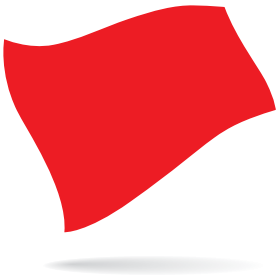
BLUE
Overtaking signal



WHITE
Slow moving vehicle or service vehicle on the track ahead

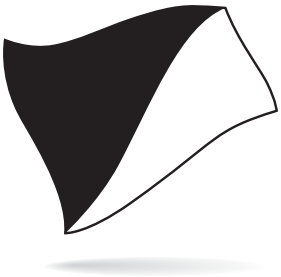
YELLOW
Danger ahead – slow and be prepared to take avoiding action

YELLOW WITH RED STRIPES
Deterioration of adhesion / slippery surface ahead



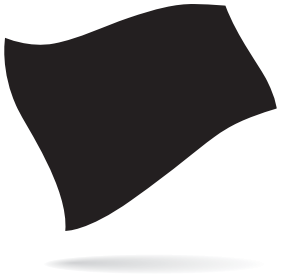
RED
Stopping the race or practice

GREEN
All clear ahead



BLACK & WHITE DIAGONAL
Warning flag, displayed to a driver behaving in an unsportsmanlike manner

BLACK WITH ORANGE DISC
Mechanical problems: stop at pit on the next lap



BLACK
Enter pit lane on the next lap

BLACK & WHITE CHEQUERED
Finishing flag – end of race or practice

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