

PURPOSE OF THE F&C TEAM

The purpose of the F&C organization is to provide safe course control by doing the following:

- Informing the drivers, through flags, lights, or other signals, of the condition of the course, the condition of their cars, or of any unusual conditions affecting the running of the event.
- Informing the Chief Steward and other officials, through the communication network, of the condition of the course and the competing cars, and of any situations requiring decisions and/or actions by the race officials.
- Relaying information and instructions from the Chief Steward to the persons operating the various emergency vehicles and equipment around the course (they may also be tied into Race Control via radio) as well as to the racing drivers and other turn personnel.
- Undertaking emergency action needed to protect the lives and property of the workers, drivers, or spectators in the event of an accident.
- Maintaining a clear course.

Safety: Priorities While On Station

1. **YOURSELF:** Your safety is the most important thing. Becoming a second incident while trying to deal with the first is not conducive to having a good day.
2. **YOUR BUDDIES:** Your fellow workers must be able to trust you are watching their back. Take care of the other people on your station and they'll take care of you.
3. **SPECTATORS:** This usually means keeping photographers or others with trackside credentials out of hazardous areas. Be polite, but be firm.
4. **DRIVERS:** It may sound cruel to place them last on the list, but they have accepted the risk of racing (as we have to a lesser extent) and have the car's safety features for protection. The only protection you and I have is a white suit and a yellow flag.

THE FLAGS AND THEIR MEANINGS (SIMPLIFIED)

A yellow flag is ALWAYS in the hands of the yellow flagger from the time the cars enter the course until all cars are on pit road at the close of a session. The blue flagger is responsible for the display of all other station flags.

GREEN FLAG

A Race is under way the instant the green flag is displayed. This flag shall normally be in possession of the Starter only, and shall not ordinarily be displayed at the flag stations around the course. When displayed, the green flag indicates that the course is clear.

YELLOW FLAG

Standing Yellow - Take care, Danger, Slow Down, NO PASSING FROM THE FLAG until past emergency area. When displayed standing, the flag indicates that the source of danger is not on the racing surface. It may also indicate that a worker has moved from behind their safety barrier.

Waving Yellow - Great Danger, Slow Down, be prepared to stop - NO PASSING FROM FLAG until past emergency area. When displayed waving, the flag indicates that an obstruction is on the racing surface and that the driver may be required to change their line.

Double Yellow , DISPLAYED AT ALL STATIONS - Indicates the entire course is under a full course yellow condition. Any stations with incidents will display one standing and one waving yellow if there is a hazard on the track surface. SLOW DOWN, NO PASSING. Shall be used with or without a pace (Safety) car, and is required during pace lap(s). During a double yellow flag a car with a mechanical problem may wave by another driver.

NOTE: While cars are required to slow down, the difference in a car going 10/10 and a car going 9/10 may not be apparent to a worker. Report any apparent lack of control by a driver.

BLUE FLAG (blue field with a diagonal yellow stripe)

Another competitor is following you very closely or is trying to overtake you. This flag may be displayed standing or waving, depending upon the speed with which you are being overtaken.

SURFACE FLAG (alternating red and yellow vertical stripes)

Take care. Oil has been spilled or a slippery condition exists, or debris is present on the course. This flag is displayed standing.

WHITE FLAG

An Ambulance, service vehicle, or slow moving (e.g., with mechanical trouble) race car is on the circuit. Take care. This flag shall be shown standing for two (2) flag stations prior to the vehicle. A standing white flag is also displayed during the first lap of a practice or qualifying session each day to indicate the location of the flagging stations.

BLACK FLAG

NOTE: THE BLACK FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

Closed Black Flag (Furled) Pointed or shaken at an individual car from the Starter's stand (optionally, accompanied by a number board indicating the car number): **WARNING!** You have been observed driving in an unsafe and/or improper manner. If the action continues, you shall be given an **OPEN BLACK FLAG**.

Open Black Flag - Displayed from the Starter's stand and the Black Flag Station, and accompanied by a number board indicating the car number: Proceed directly to the pits and the location designated by the Chief Steward or event Supplementary Regulations for consultation with Officials. **DO NOT TAKE ANOTHER LAP.**

Open Black Flag Displayed at All Stations - The session has been halted. Practice/qualifying/racing has stopped and all cars shall proceed directly to the pits. This flag condition shall be accompanied by an 'ALL' sign displayed at the Starter's stand and the sign may be repeated at stations located elsewhere on the course

MECHANICAL BLACK FLAG (black field with an orange ball in the center)

There is something mechanically wrong with your car. Proceed to the pit at reduced speed. This flag and accompanying number board is displayed at the starter's stand and may be additionally displayed at another station location elsewhere on the course.

CHECKERED FLAG

You have finished the race (or practice/qualifying session). Continue cautiously to the pits. This flag is normally displayed at the starter's stand but may be displayed at another chosen location during practice sessions.

RED FLAG

NOTE: THE RED FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

Displayed at each station and on the Starter's stand

EXTREME DANGER - THE SESSION HAS BEEN STOPPED. Come to an immediate, controlled stop on the right side of the track (indicated by an official at the location or as specified in the event Supplementary Regulations). When released by an Official, proceed cautiously to the pits.

STATION SAFETY

SIGN IN

This ensures:

- That we know you were there and how to contact you
- That we know who to contact in case of an emergency

GO TO THE BRIEFING

Your captain will tell you what to expect at the corner. This is also your opportunity to tell her or him what they can expect of you. If you feel uncomfortable with any position or if you are not feeling at your best, this is your opportunity to let them know – before corner rotations are made.

FLAGGING

The duty of the yellow flagger is to warn oncoming traffic of an unsafe condition on or off the course within the section of track that runs from the flag position to the flag position of the following station.

The PRIMARY responsibility of the blue flagger is to provide the eyes of the station. They should always be facing oncoming traffic unless the yellow flag is being displayed. While learning, the blue flagger often requires feedback as to whether their flagging was correct. Feedback should be supplied by the yellow flagger, the corner captain or a mentor who is providing training, not by the blue flagger turning around to see what happened. Signaling oncoming traffic with the flags as demonstrated earlier is a further responsibility of the blue flagger but the safety of personnel in the station is foremost.

Flaggers work in pairs, one facing oncoming traffic signaling with the blue and other flags and one facing the traffic departing the corner station signaling with the yellow flag. Since the yellow flagger cannot see oncoming traffic, the blue flagger must act as the eyes of the yellow flagger and warn of any impending danger.

The flagging position must protect the flaggers with some kind of positive protection barrier that will stop a racing car traveling at speed. At no time should the flaggers work in front of this protection.

The blue and yellow flags should be held so as to hide the colors from the drivers when they are not needed for signaling. The other flags need to be kept close at hand to the blue flagger to be displayed as quickly as needed.

Cars stopping at the station either after spinning or after driving off the course require a response from the corner crew. The flagger at once displays the yellow flag, and the communicator reports the situation to control while the response workers assist the driver and the car.

Displaying the yellow flag requires a set procedure from both flaggers. The yellow flagger, looking beyond the turn, sees and assesses the incident as it occurs, then at once turns to face oncoming traffic and displays the appropriate flag. The blue

flagger moves to the side of the yellow flagger away from the course, faces the course downstream and observes the resolution of the incident, keeping the yellow flagger informed. If another flag must be displayed (surface or white) the blue flagger moves slightly before of the yellow flagger and displays the appropriate stationary flag. It is the yellow flagger's responsibility during this procedure to watch and warn the backup of a car approaching the flag position.

During a yellow flag situation all corner personnel should watch oncoming competitors very closely and report to the Corner Captain (who will relay to Race Control) any driver who passes another competitor between the point where the yellow flag is being displayed and the point of the incident. Passing under the yellow reports must include the numbers and colors of both cars. A confirmation of the number of workers witnessing the pass as well as the pass was after the flag but before the incident, along with any unusual circumstances. If you believe a pass is about to take place notify the others at your station.

COMMUNICATING

The communicator must be in a location where all of the area within the jurisdiction of the station can be seen. The communicator wears the phone set and never leaves it for any reason until relieved by another worker. The communicator reports all pertinent information about corner conditions to Race Control and relays incoming information to the Captain. The communicator should NEVER leave the station to respond to an incident. It is common practice to rotate workers on the phones immediately after a course clearance.

INCIDENT RESPONSE SAFETY

COVER HAND SIGNALS FOR AMBULANCE, FIRE, WRECKER, FLAT TOW AND HELP

ASSESS THE SITUATION

Sometimes the best response is no response. When responding to an incident, you must first ask yourself these five questions:

1. What, if anything, do I need to accomplish?
2. How am I going to get to an incident safely?
3. How can I accomplish the task at hand?
4. How will I get back safely?
5. Do I have authorization from my captain to respond?

If you cannot answer all these questions, **DON'T RESPOND!** If you can't respond to an incident because it's not safe or you can't accomplish anything, be as much help as possible from your current location (e.g. directing traffic, signaling necessary information, etc.).

APPROACHING THE INCIDENT

Respond to on-track or cross-track incidents in pairs, allowing one set of eyes to look upstream and one set to deal with the incident. One worker may respond to a vehicle well off the racing surface but even then with much of their attention directed toward oncoming traffic. Ideally, there will be 4 or more personnel on station. On a 3-man station, the blue flagger is the responder, since the yellow flagger will be facing upstream during the incident and you have no need of the blue flag. For on-track or cross track incidents, the yellow flagger can pass his flag to the communicator and respond also.

Make sure you have an adequate window to respond in (you have already timed how long it takes cars to get to you, haven't you?). Ask for a point if your upstream visibility is at all obstructed or limited. If unsure, don't cross. If you do cross, make sure a yellow flag covers you.

Your fire extinguisher is your best friend (besides the other people on the corner with you). TAKE IT WITH YOU ON EVERY RESPONSE. Don't carry the fire bottle by the handle, swinging beside you as you run; legs have been broken in this way. Cradle the fire extinguisher like a baby. If incident requires a long trot, one responder can carry the fire bottle and hand it off to the second, fresher responder to use if required. Take a towrope as well, if possible.

Approach the incident from downstream or skirt around it so you can keep an eye upstream. Place the car(s) between you and traffic for protection, even if this means talking to the driver through the passenger window. Once at the incident, one worker must always keep their eyes upstream while being mindful of any signals from the corner captain. Try to approach the car in a manner that makes you visible to the driver. As soon as possible, try to make contact with the driver, both to let him know you're on the way (don't run over me) and to ask his

condition. If the car is clearly disabled and the driver is alright, ask him to get out of the car, turn off the electrics and leave the car in gear.

Check the driver's condition quickly and report it back to the turn station. Remember a driver who has just been knocked out of a race, but is uninjured may not be a happy camper, so don't take offense if the driver is less than courteous. Rather than asking, "are you OK?" ask specific questions "Do you hurt anywhere?" If the driver seems dazed, ask him where he is or what day it is to get a feel his condition. If the driver appears to be uninjured, help him exit the car and move to a safe location. Keep someone with the driver to observe him. If the driver complains of neck or back pain, or is obviously injured, call for an ambulance. Keep an injured driver in the car if possible. Only remove a driver's helmet if his airway is compromised.

MOVING CARS

If you can safely move a disabled car to a safer location or 'push' start a stalled car, do so as quickly as possible. Let the driver know what you want him to do. If the driver doesn't cooperate, tell him he's on his own and get back to safety. Report to your captain why you abandoned the incident. Let the Stewards deal with the driver later. Using a towrope to pull a car forward or backward can be safer than pushing or pulling, especially if it allows you to face traffic. Look for "tow eyes" on closed wheel cars. Be especially careful pushing open wheel cars from between the wheels, the rear wheels can easily trip you or do worse. NEVER push from between the wheels! High centered cars pose particular problems and may call for a flat tow/wrecker now. You may be able to free lighter cars (Formula cars, Spec Racers) by rotating them rather than pushing. Remember some cars have no reverse gear (Legends, Baby Grand and some DSRs).

FLAT TOW HOOKUPS

The flat tow driver knows what to do. Let him! Provide any assistance requested. Generally they loop the tow strap around roll cage, twist it and let driver hold on. The driver must have gloves, helmet, and lap belt. Most flat tow drivers find it helpful if you hold the tow strap overhead, within his view (in the mirrors) but not directly between the two vehicles, lowering the strap as tension is picked up by the flat tow and dropping it when the disabled car is about to move. A driver should never use a flat tow to restart the car, report such incidents to control.

WRECKER HOOKUPS

Assist the wrecker crew in positioning the wrecker. Safety is the first goal - speed is a close second. Assist the wrecker crew in performing a minimal safe hookup to clear car from track and then secure further for transport if required. Remember, when the wrecker driver is out of the truck and hooking up, you are his uptrack eyes.

FIRES AND EXTINGUISHING THEM

Check your fire extinguishers first thing each day.

- Check the pin. Is it there? Is the pin properly secured with a breakaway tie wrap?
- Check the gauge. Is it in the green or has it dropped to the red?
- Pick up the fire extinguisher and shake it. Make sure you can feel the powder move around. If required, bump it against something to loosen up the powder. Does the weight feel right or does the extinguisher feel light?
- Check the nozzle for obstructions. Mud daubers seem to find fire extinguisher nozzles particularly attractive.

Get as close as possible to the fire before discharging the fire extinguisher. Use short bursts. You only have 10-15 seconds of discharge, use it wisely. Spray the source of fire, not flames or exterior. Almost all race cars have openings through the wheel wells or other areas. Find an opening to stick the nozzle in. NEVER OPEN HOOD QUICKLY! This is a sure way to get a face full of fire. If you must open the hood, have your partner crack it open a few inches and stick the hose in. Find the Kill switch and use it. Normally you will only trigger the onboard fire system in extreme cases.

RACE COMMUNICATIONS

In general, Race Control repeats most radio calls to verify they have correctly understood the information given and to ensure all stations know what's going on. This also provides a guideline as to the form and information that is needed.

RADIOS ARE ONE-WAY

Whenever you key that microphone, no one else can communicate. Therefore, it is critical to keep the radio available to all as much as possible. Always keep this in mind when working communications at a track that utilizes radios. Landlines (such as Waterford) allow two-way traffic. Keep your calls brief and succinct. Waving yellow calls take precedence over all other calls.

MINIMIZE THE TIME THE TRANSMIT KEY IS PRESSED

Play by play commentary is strongly discouraged. Figure out what you're going to say before you press the button. If you need to inform race control of a situation, but don't have all the details, tell race control you "will inform" and release the talk button. Then, when details have been collected, pass them on to race control.

COMMUNICATORS SHOULD KEEP PEN AND PAPER AT HAND

In the heat of the race, car numbers and other information can be quickly forgotten, especially if you have to hold a call. Jot down information so it may be accurately relayed to race control. Paper and writing instruments are in the corner packet.

CONFIRMATION OF CALLS REGARDING A CAR BY OTHER STATIONS ("car six two smoking heavily") Generally the initial call plus one confirmation is all that is required. It is not necessary for all stations to confirm unless a change in the situation has occurred ("car six two is now smoking heavily and dumping fluid on the track").

RADIO SILENCE SITUATIONS (WHEN TO SHUT UP)

Hold routine calls during the following situations.

- A. ALERT calls (except for another ALERT).
- B. Black flag situations. Hold routine radio calls when waiting for call through and acknowledgment of a black flag. Exceptions are "call through" responses and changes in status of the car being black flagged or mechanical black flagged.
- C. The pace and first lap and the last 2 laps of a race. An exception would be a leader change on the last lap that Start/Finish needs to be aware of.
- D. Call through situations such as looking for the leader or others as requested by Stewards through race control.

After the situation clears, give your report to Control stating it occurred during a "hold". Include the time of the incident if possible. Radio silence applies to race control as well as corner stations.

SITUATIONAL AWARENESS

CONSIDER CURRENT RACE CONDITIONS BEFORE MAKING A CALL.

If another turn is working an immediate response situation such as a flat tow or wrecker now, do not tie up the radio net with low priority calls such as a slow moving vehicle or a simple spin and go. Hold the call until the high priority situation has been handled, then make a delayed call.

Make sure there is no communication in progress before making a call.

BLIND CALLS

Blind calls do not require acknowledgement from race control prior to communicating the information in the call. Making blind calls in the following examples minimizes reaction times and minimizes the time the phones are tied up.

A. Request for an immediate flag response from an upstream station.

Example: Turn 7 requesting a standing/waving yellow from Turn 6 for an incident upstream of Turn 7, but out of view from Turn 6.

B. Routine white flag "follow around" calls for slow moving or emergency vehicles.

The first report of a white flag should be made in the normal manner. As the slow moving vehicle proceeds around the course, simply state "Turn 3 standing white for car 3". Return to no flag after a white flag does not need to be called to race control. All stations should call in when they go white so that upstream stations know when to retire their white flags.

GENERAL INFORMATION

A. Race Control will make every attempt to keep all stations informed of race progress throughout the event. However, this will depend on availability of information, current track conditions, event in progress, etc.

B. All communications should be made in a businesslike and professional manner. Please keep clever remarks to a minimum (or at least to an appropriate time. During a race is not the appropriate time).

C. Be attentive on the radio at all times (this applies to stewards also). Course checks and acknowledgments must go quickly. Do not leave the radio unattended at any time.

D. Confer with the Turn Captain regarding what specific information that he/she wishes to be relayed. All instructions from Control should be relayed to your corner captain.

ALERT CALLS

In the event that an emergency (or possible emergency) situation occurs at a station, the communicator notifies control by declaring an alert (or emergency or mayday) in the following manner:

“Control, control, alert at station (number) (flag condition).”

The alert call will clear the net of other traffic except for control and the declaring station. Alert situations are those that are likely to involve injury, require the immediate response of emergency vehicles or cause 100% track blockage. They may include, but are not limited to, rollovers, heavy contact between cars or barriers, or the apparent injury of a driver, worker, participant or spectator.

Control will respond to the declaring station and should accept no other communication traffic with the exception of another alert. The declaring communicator should then tell control what happened in as clear and unemotional terms as possible. **DO NOT SPECULATE** about the condition of personnel on the phones. The stewards will decide what should happen next and will inform the net through the chief communicator.

It is important that when the alert situation has cleared that the declaring station informs control to clear the alert (theoretically, the declaring station has control of the net until this occurs).

“Control, this is station (number) (flag condition). The driver of car five is out and behind the barrier and all workers are clear of the racing surface. Please cancel our alert”.

Control will then ask if there were any held calls and may inquire if your station has any more information.

WORDS TO AVOID

MOMENTARILY (yellow) – you were or weren't in that flag condition.

ROLLED/ROLLING – unless a car actually was on its wheels, on its roof, on its wheels, etc.

FIRE(D) – (as in the car has re-fired. Use re-started instead) unless there is one.

KILLED – (i.e. killed his engine) Stalled works better and creates less excitement in the tower.

Communications Etiquette

- A. Begin all calls with "Control, this is (STATION), (FLAG CONDITION)" unless it's an ALERT.

Station: "Control, this is Turn five waving yellow." (Specify standing or waving yellow)

- B. **WAIT** for control to acknowledge.

Control: " Go ahead Turn 5."

- C. Give **brief** description of what happened. Use this order to make race control logging much easier.

- 1) Car numbers (single digits ex: five five, not fifty five) and color (if many colors, pick the prevalent colors).
- 2) What occurred –
 - Spun car rotated more than 90 degrees to the intended angle on or off the racing surface

 - Slid car left the racing surface unintentionally but did not spin

 - Pulled off car was intentionally driven off the racing surface and parked by the driver

 - Drove off car was intentionally driven off the racing surface by the driver to avoid an impact or debris.
- 3) Where occurred – on track, off track, upstream, downstream, apex, driver's left, driver's right.
- 4) TRACK BLOCKAGE and track condition - 25%, 50%, oil, debris, etc.
- 5) If an upstream backup flag is requested.

Station; "Turn four go waving yellow Turn four go waving yellow "
"Control, this is station five, no flags."
After control has asked you for your report;
"Car five four blue spun and impacted the wall driver's left downstream of our station, is stopped on course blocking 50% of track. Will inform."

NOTE: It is better not to give "play by play" calls that keep the net tied up. If it appears that an incident will clear itself quickly, wait a moment and the entire sequence may be covered in two calls rather than a series.

Station: "Control, this is turn five green (or no flag)"

Control: "Go ahead Turn 5."

Station: "Car two one purple spun off course driver's right and continued. We were standing yellow."

- D. Control will repeat most calls back to you for confirmation of car numbers and incidents.

E. Follow-up calls should provide the following types of information. Control will ask for other information they may need.

- 1) Location and condition of driver, as quickly as can be determined.
- 2) Advise if car continued or need wrecker/flat tow/tilt bed now or at end of session.
- 3) If car remains, exact location including position relative to runoff or wall openings.
- 4) Condition of tires/walls, tires need to be restacked, wall moved, leading edge.
- 5) If incident is ongoing, keep control informed of status.
- 6) Whether upstream station can drop its backup flag.
- 7) Advise Control when station is back to green. Back to green calls can be single call..."Control, this is five back to green".

F. METAL TO METAL calls should include following information.

- 1) Type of contact, nose-to-tail, side-to-side, etc.
- 2) Was there an aggressor or was it a racing incident?
- 3) Did cars continue? Was there damage?
- 4) Be sure that information is as factual as possible and not something that someone "thought" happened.