



Strathclyde RAYNET Group Tour of Mull 2003

Guide For Operators

This document must be read in conjunction with the Safety Manual

Introduction

This is our Twentieth year operating as Raynet for the Tour of Mull Rally.

This years route is almost identical to last years so should not present any surprises.

This year sees the extension of the use of the 81MHz MSA safety radio system on many of the stages – this may mean you do not hear as much of the routine rally traffic as previous but the main information will still be passed to Rally Control via Raynet

If you can assist in installing and later recovering our Talk-Through System this would be appreciated, and gives you an opportunity to explore the more remote and picturesque parts of the island.

We will again have a Social Evening at 7.00pm on the Sunday, followed by wash down meeting at 8.30pm where you have the chance to express your valued comments. The venue will again be the Salen Hotel with a format similar to last years.

(Remember 11.30am Friday, Salen Hotel, is the final briefing meeting.)

Enjoy yourself, behave and drive responsibly and add to our good reputation.

Contacts During the Event (contact first on the net)

Group Controller	Crawford	GM8HBY
Engineering	Adrian	GM1FML
Equipment Distribution	Kenny	GM1MMK
	Rik	GM8TT
	John	GM1SRP

Telephone Numbers

RAYNET Control, Salen Hotel 01680 300 599 (*For emergency use only*)

Arrival Frequencies

Strathclyde RAYNET Group frequency 145.225 MHz and GB3HI on 145.700 MHz.

Overview of the Event

This is the 34th year of the Tour of Mull. Throughout its history it has had a unique status in the world of Motorsport. The event is organised by the 2300 Club, formerly the Mullard Motor Cycle and Car Club. The MMCCC initials were later translated to the 2300 Club. The first Tour of Mull Rally took place in 1969. In recent years the rally has been run on closed roads, 1990 being the first event after the Act of Parliament was passed. Since the Act the road ceases to be a public highway providing over 160 miles of closed road competition for up to 150 competitors. The road is closed by the passage of a marked police car and opened again by the road-opening car.

Briefing Meeting

One important briefing meeting will take place for all RAYNET operators.

Salen Hotel on Friday Morning, 10th October, 11.30am prompt.

If you cannot make this meeting, please ensure that you contact Raynet Control, as soon as possible thereafter to arrange collection of the final technical updates and operator positions.

Signing On

All marshals, rally officials and RAYNET personnel are required to sign the official RAC signing-on sheet, otherwise you will not be covered by rally insurance. Signing on sheets will be available at:

Aros Halls and Salen Hotel.

Location testing

The net will be controlled (almost continuously) from 1000 Hrs Friday to end of rally. It is suggested that you test your link to control for your Friday, Saturday afternoon and Saturday night locations. Please do this on the Friday, prior to 1600 hours, and report any problems to the engineering team. It may be too late to make any changes on Friday night but problems notified on the Friday, prior to 1600 hours, can be worked around.

RAYNET Image

It is important that you display the Tour of Mull RAYNET sign supplied by 2300 Club, however it is the policy of Strathclyde RAYNET Group NOT to use beacons and we request that you do not do so while on the island. In previous years there has been an amount of confusion caused by people displaying RAYNET insignia while not on duty (e.g. wearing jackets while spectating). Please only wear your jackets etc. when on actual RAYNET duty.

Please advise RAYNET CONTROL of any RAYNET signs you observe that are likely to cause confusion should an emergency occur.

Getting to your position

You may find that the road closes (very early) making it appear you must spend (too many) hours away from your accommodation. Careful pre-parking of your car may assist.

A personalized list of placings has been provided. Be aware that you MUST collect final information from Salen Hotel on the Friday Morning as pre event draft documentation will probably change.

Overview of Operator positions

Start Operators

Meet your Stage Commander at the start one hour before the road closure time. Once the road is closed take up a position with the Stage Commander and remain close to him. Use the tactical callsign "Start X".

In the event of an incident and the Stage Commander going into the stage, you should remain at the start and be prepared to relay information from the incident. The stage Recovery vehicle will travel to any incident to act as the communications link. You should keep a log of any officials, doctors etc entering the stage and note the time the stage was stopped at and the numbers of the last 3 competitors to enter the stage.

IMPORTANT Your stage commander will only proceed into the stage if the incident is confirmed in the portion before a mid-point equipped with **Doctor** and **Rescue**. In the event that the incident is beyond that point, the **Marshal in charge** of that Mid Point must be passed the numbers of the last three cars that have entered the stage. Thereafter he will proceed into the stage followed by the **Doctor, Rescue** and **Recovery vehicle**.

If any or all three cars do not reach the mid-point, the RAYNET operator will inform the Start of the missing car prior to his position. The Stage Commander can then decide on what action to take.

You are required to pass groups of five car numbers (groups of ten on Saturday afternoon stages) as described below. Be short and precise.

Start operators should have both handheld radio, to shadow the Stage Commander minimising communications delays, and mobile radio in your car positioned close to the stage start. A magmount antenna suitable for your handheld is desirable as you may enter the stage in the Stage Commander's car.

Midpoints and Junctions

There will be at least one marshal at your location checking car numbers. Pass the details of the car numbers, which you will receive via the net from the start, to the marshal. The log sheets provided should be used for logging these numbers. There may also be a Doctor/Rescue unit at your location. Keep the Marshal/Doctor/Rescue informed of progress your stage and the rally in general.

IMPORTANT - In the event of an incident occurring in your stage after a Mid point equipped with a Doctor/Rescue, the Start will notify the Mid Point of the numbers of the last three cars into the stage and will have stopped the stage.

The Mid Point operator / marshal will monitor for **these** three cars and report their safe passing. If **any of the three cars** do not pass, then the RAYNET operator should notify the start where the stage commander will decide on what action to take in case the missing car is in difficulty before the mid-point.

All cars that had entered the stage prior to any stoppage should be accounted for. If Rescue vehicles are deployed from a midpoint that point and all subsequent radio points will display a red flag to warn competitors of safety traffic on the stage. **RED FLAGS are only a warning to competitors of possible danger ahead. They may pass a RED FLAG. Yellow flags will not be used.**

You and your marshal should maintain a list of car numbers, do not pass these over the radio unless specifically requested by RAYNET Control.

Mid Point and Junction operators use tactical callsigns of the form "xJx" example "7J2" indicating "stage 7 second operator". Control will call you using "Stage7 J2" to avoid the stage number being clipped by the talkthroughs causing confusion, as there are a lot of second operators on the rally.

Do not transmit unless the message is vital or information has been requested by Control. Be alert to the net traffic and anticipate what information Control may ask for.

Stage Finish

You will be working with the Deputy Stage Commander at the stop line (not the flying finish) of your stage. Portable operation would be beneficial, as you should stay close to the Deputy Stage Commander. Use the tactical callsign "Finish X". Confirm receipt of car numbered groups for your stage (as example below). Pass any Deputy Stage Commander's concerns immediately to Control and obtain up to date information from following competitors.

Bingo Ticket System

If a car is missing, it is the specific job of the Bingo Ticket Checker at the finish to make exhaustive enquiries with the next three competitors as to information about the missing number.

As each car arrives at the stage start, the check sheet controller will write the previous car number on the pre-numbered Bingo Ticket and hand it to the time clock operator to be passed to the car. The car number and the time are then entered in the corresponding pre-numbered check sheet space.

Upon arrival at the stage finish the ticket will be collected from the crew and handed to the check sheet controller who will put it on a spike and record that number against the corresponding car and time.

If the tickets are not consecutive, the missing car can be identified from the car number on the next ticket.

If the car is still **unaccounted for**, then alert the Stage Commander that 'Competitor number X' is missing. This is only a warning.

If the **competitor is off** in the stage the bingo ticket checker should ask you to notify the Stage Commander as a Priority Call and state whether the SOS (Red Cross) board been seen or not.

Pass info:

Car Number (model & colour if available)

Location (as exact as possible)

Crew IN / OUT + status of Crew and if stage is blocked

If **OK Board** is seen pass the car number, location, status and OK board seen, as soon as possible.

Out of Sequence Procedure

Early warning is important when you have definite information of a problem. However it is a waste of time to send 'car off in stage', which needs some other relevant information e.g. location, crew condition, OK board sighted or stage blocked.

Obtaining fullest information saves much Control airtime.

Experienced Raynet operators must make a valued judgement and if instructed by your marshal send the message or send it irrespective if the criteria below apply.

Midpoints have particular problem obtaining this information and their **calls should be a trigger for START and FINISH** to ask competitors to report sightings. Other midpoints should enquire if the car had been seen to pass in anticipation of Control asking.

Most cars out of sequence have mechanical problems and require time to fix them e.g. change a wheel.

Suggestion: Wait until the car is 5 (five) out of sequence in the night stages and 10 (ten) on the Saturday afternoon before automatically reporting.

(If it was a perfect world, and you could see all car numbers, the car should be off between your point and the previous point.)

Rally Start and Service Area

To find service crews for rally cars, and give them messages, may require knowing where they are parked in the Service Area. We should only **deliver** messages, which are Urgent for the conduct of the Rally. Service crews should **collect** information for their car themselves from messages, which will be posted on the notice board. Service crews may ask for further information, which Control will attempt to obtain during quiet periods on Stages. Control maintains a list of cars off or stopped in stages.

Start and Service area operators should obtain the total number of competitive cars and the numbers of the last three cars out of their area and pass this to control before closing down. This information can be obtained from the marshal at the time control.

Reporting Official Rally Cars & Competitors

All stations should routinely report (by number, not designation), the arrival/passage **TIME of the Flying Control Car (00) and first competitive car. Start and Finish operators should obtain the actual official rally time from their marshals**

A typical report may be "Car 00 passed 2J4 at 20:04".

Also required are the numbers of the last 3 cars and the total number of competitive cars in and out of the stage.

Please retain this information so that in the event of a query after your stage has been stood down the information is still readily available.

Insurance Notice

Signing On

You **MUST** do this. It will provide you with whatever additional cover the Rally has provided.

Closed Roads and Rally Participation

Your own car insurance will give you what you expect up to the point where "you enter a closed road section or a rally stage or an off road section."
Beyond this point you are on your own!
Take this into consideration while driving.

RAYNET Insurance

Provides cover for third party involvement, e.g. mast falling on others etc. It does not provide ANY motor or personal equipment insurance.

Trophy Rally

If a competitor has been unfortunate enough to damage his car so he cannot continue in the main rally on Friday night, he can enter the Trophy Rally, if he can get his car repaired in time for the start on Saturday afternoon. Additional cars may join the event still keeping the maximum number of competitors to 150.

The Trophy Rally acts as a second chance event and follows the main rally for the rest of the event (Saturday afternoon and evening). There will normally be a small gap between the main rally and the first of the Trophy cars. Report the passing of this car to control and enter it and the other Trophy Rally Cars on the second section of your number-passing sheet. All other safety and RAYNET information is as the main rally procedure.

Number Passing Procedure

On an event such as this, it is very important for the safety of crews that marshals can account for each car in the rally. If a car 'disappears' it may have had an accident in the stage and gone off out of sight of the other drivers. To this end the organisers have tried many ways to check a car's progress through the stages. This year they again plan to implement number checking at multiple points in a stage.

Each number point will be flood lit and the marshals will take note of each car passing their point. The start operator will call into control with a list of car numbers passed in groups of 5 and each group will be indexed. On Saturday afternoon stages it will be necessary to pass the numbers QUICKLY in groups of 10 due to the competitor intervals being only 30 seconds. Control will then repeat the numbers for the benefit of the outstations. Only the finish operator should call in to acknowledge receipt of the numbers. Do not repeat the numbers again.

Other Midpoint/Junction operators should not acknowledge the information. They should inform Control if they have missed any number or group of numbers. Once you have received the numbers, pass them on to the marshal at your location promptly. Concern, expressed by a marshal, for any car in your stage must be notified to Control as soon as possible.

In the event of long gaps (e.g. longer than 3 minutes) in the start sequence it is suggested that the start operator send part groups or individual start numbers to ensure that competitors do not get a change to be lost for long periods.

A typical exchange would be like this. ***Cut out as many callsigns as possible***

Start 2 to Control:	Car numbers for stage 2 over
Control to Finish 2:	Finish 2 ready to receive.
	Control announces:
	Send numbers for stage 2 over (wakes up stage 2 operators)
	Stage 2 Group 4 cars 23, 24, 18, 12, 17 over
	Confirm Stage 2 Group 4 cars 23, 24, 18, 12, and 17 over
	(Write numbers down)
	Confirmed out
Control to Finish 2:	Confirm receipt over
Finish 2 to Control:	Acknowledged out.

Watch out, tired operators may record "Group 5 one hundred and twenty five" as 510025. Better would be Group 5 Cars one two five. Get the idea?

You will be able to tell if you miss a group, as the next one will be out of sequence. Control will have a record of all groups. Number passing must be kept short and efficient so as not to jeopardise any safety communications from other stages, which are also running.

You are **NOT** responsible for and **MUST NEVER** undertake responsibility for any aspect of rally management including recording of official times and car numbers. You will be issued with RAYNET record sheets to assist recording information passed from the start of the stage.

ONLY OFFICIAL INFORMATION PROPERLY INSTRUCTED TO YOU FROM YOUR MARSHAL HAS ANY VALIDITY.

Stage close down procedure

You **MUST** remain in your position until you meet all the following criteria.

- 1 All competitive cars have passed your position or "Out of Time Limit" has been applied.
- 2 The "Road Opening Car", (06) which opens the road to the public, has passed your location.
- 3 You have received permission from RAYNET Control for yourself and your marshals to stand down.
- 4a **Following the Road Opening Car:**
Join the traffic flow, while still remaining on the RAYNET net, until you reach the next RAYNET operator location.
- 4b **Returning in opposite direction:**
Remain at your location (we know that the marshals have already gone away) until the Road Opening Car has reached the next RAYNET operator.

Be aware that Recovery vehicles may be approaching you on the now open public road. Drive with caution.

Notes:

Do not ask RAYNET Control for permission to stand down until the road opening car has reached either your location (if you are going to follow it) or arrived at the next RAYNET operator.

Control may require you to remain at your location, even if all your marshals have left, for safety reasons, which may not be explained over the air.

If a passage control is manned by RAYNET you should note that the opening car may take a route that does not pass your position. Automatically stand down when the finish of the previous stage does so.

Use common sense when asking for permission to stand down (Control also wants to get you away) and wait for the short time it takes to tie up all the loose ends at the end of the stage.

If possible, continue to MONITOR your control for some time after being stood down, especially if you were a start or finish operator. Control may require confirmation of some facts relating to your stage.

CONTROLLED NET OPERATION

Friday 10th October (1000 hours) - Sunday 12th October (close final stage)

IMPORTANT

The volume of radio traffic, particularly prior to stage opening is very great. To aid net management the following radio procedures should be used. **Please assist by identifying and testing your first and subsequent locations during the Friday, prior to 1600 hrs.** The net will be controlled from 1000 hours Friday. Make test calls via RAYNET Control.

When operating through the talkthrough systems used on this exercise it is necessary to **leave a short pause**, between keying the microphone and speaking, to allow for all the talkthroughs in the chain to switch to transmit.

Motorsport is dangerous. Always leave a pause for IMMEDIATE or PRIORITY traffic.

GENERAL

- 1 Listen on the net frequency at all times when active on exercise.
- 2 All calls to be made through RAYNET CONTROL.
Avoid direct transmissions and requests for talkthrough unless the message is lengthy or complicated.
- 3 Write messages before transmission to ensure clarity.
- 4 Address all messages. A correctly addressed message sent to control will probably be overheard by the destination station and will only require to be "acknowledged".
- 5 Use plain language not codes so that your marshal can understand.
- 6 Listen and update your marshal with RELEVANT information overheard (i.e. Stage 2 now active). It may save him asking you to radio for information.

CHECK REPORTS (CS#1 = Callsign 1)

- 1 **Radio checks** good readable, fair readable, poor, broken, nothing heard.

<Control> this is <CS#1> Radio check over

<CS#1> this is <Control> good readable out

- 2 **Position status**

<Control> this is <CS#1> Doctor & Rescue arrived F5 over

<CS#1> this is <Control> Roger out

- 3 **Index check (Bingo Ticket)**

<Control> this is <CS#1> Index 27 over

<CS#1> this is <Control> Your index 27 EQUATES Car 33 out

CALLSIGNS & TACTICAL CALLSIGNS

Callsigns are required when first joining the net, on leaving it, and on the first occasion if 15 minutes has elapsed since your last transmission. Whilst participating in the net you are not obliged to transmit your callsign while making contact with control. A suitable point to transmit your callsign is before the final 'out' at the end of message passing. Unnecessary callsigns should not be transmitted.

On a large event where members of many groups are involved it is more convenient to use a meaningful callsign than amateur callsigns. Callsigns such as Foxtrot 6, meaning 'finish of stage 6', enable Control & outstations to immediately identify where a station is located.

Use Tactical callsigns for all except licence requirements.

FIGURES

Figures are sent as in normal speech, unless conditions are bad when they can be sent digit-by-digit preceded by the proword FIGURES. To assist writing and identification of missing figures send figures in groups of two.

"2359 hours" NORMAL "twenty three fifty nine hours" or BAD CONDITIONS "figures two three - five nine hours"

Do not repeat car numbers except when communications are poor.

PROWORDS

1 Repetitions by sender (for emphasis only) **I SAY AGAIN**

<CS#1> this is <CS#2> move now **I say again** now over

2 Repetitions by receiver **SAY AGAIN**

<CS#2> this is <CS#1> --TEXT-- over	<CS#1> say again over
<CS#2> this is <CS#1> Grid 12 34 56 over	<CS#1> say again Grid over

SAY AGAIN WORD AFTER ...FROM... ...TO...

<CS#2> this is <CS#1> no doctor at Torloisk junction over	<CS#1> say again word after Torloisk over
<CS#2> this is <CS#1> recovery vehicle for rolled car required at Gribun over	<CS#1> say again from rolled to Gribun over

SAY AGAIN WORD BEFORE / ALL AFTER / ALL BEFORE

These are used as described above. The "catchword" (last correct word or phrase) must always be used.

3 Verifying/Confirm **CORRECT WRONG**

<CS#1> this is <CS#2> reference report on incident verify grid 12 34 56 and 12 30 hours over	<CS#2> this is <CS#1> correct over
<CS#1> this is <CS#2> reference report on meeting verify grid 12 34 56 and 12 30 hours over	<CS#2> this is <CS#1> wrong grid 12 04 56 and 12 35 hours over

4 Arranging voice conversations (not common) **FETCH SPEAKING**

<CS#2> this is <CS#1> fetch organiser over	<CS#1> wait out	<CS#2> this is <CS#1> organiser speaking over	<CS#1> medical officer speaking. etc.
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5 Relay procedure **RELAY TO**

<CS#2> this is <CS#1> relay to <CS#3> --TEXT-- over	<CS#2> Roger out to you	<CS#3> this is <CS#2> from <CS#1> --TEXT-- over	<CS#3> Roger out	<CS#1> this is <CS#2> message passed out
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6 Formal Standardised Reports **SITREP SEND**

When information is passed in a standardised form it will be offered using the relevant proword.

<CS#2> this is <CS#1> SITREP over	<CS#2> SEND over	<CS#1> SITREP ...TEXT...over
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7 Messages **MESSAGE CONTINUES ENDS**

Messages will be offered when a written copy has to be produced or the sender wishes to ensure contact. **Must be sent at dictation speed**, with breaks if lengthy to **allow for a priority call**.

<CS#2> this is <CS#1> message over	<CS#2> SEND over	<CS#1> message to from begins break ⇒	⇒ continues ends. over	<CS#2> received out
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MESSAGE PRIORITY PREFIX

(None)	All messages are routine unless more important. Do NOT use the word ROUTINE it only wastes time.
Relevant	Only use to correct information you are certain about or genuinely assists. Do NOT join in for the sake of it.
Priority	I wish to interrupt the traffic at the earliest convenient point. This jumps the queue of outstanding messages. ONLY use when your message has become URGENT.
Immediate	For use in a Life or Death situation. This interrupts the current message. Incorrect use and it "might be yours."

OTHER EXPRESSIONS

Acknowledge	Instruction to receive station to acknowledge receipt
From	Precedes calling station's callsign or message originator
Go Ahead	Permission from Control for traffic to proceed
Nothing Heard	No signals received from specified station
Out	End of transmission; no reply expected
Out To You	End of transmission to you; further calls to other stations follow
Over	End of transmission; a reply or acknowledgment expected
Received	Your last transmission received OK
Roger	As Received
Say Again	Repeat
Send	You may transmit your offered message
Standby	Wait until called or Wait for reply
Standing By	Used by control to indicate Control is ready to receive messages
Wait	Please wait for further instructions
Wait Out	Wait until channel is clear
Wilco	I will comply

RALLY TERMINOLOGY

Stage Commander	In charge of Stage usually at the Start.
Deputy Commander	Second in command of Stage usually at the Finish.
Finish	Where the cars are supposed to stop for the Marshals.
Flying Finish	Where the cars are timed at rally speed at the end of the Stage.
Stage Stopped	Temporary halt to rally competitors entering Stage.
Stage Closed	Stage shut down. Do not announce this in error.
Opening Car	Mull: Re-opens Stage at end of Rally. (Other: Makes Stage active.)
Closing Car	Mull: Closes roads to start Rally. (Other: Completion of Stage.)
Rescue	Medical facilities (Ambulance/Paramedics) to assist casualties.
Recovery	Vehicles equipped to recover cars off stage.
Red Flag	Shown to competitors indicating that an obstruction may be ahead.
Out of Sequence	Use this rather than 'Missing' or 'Lost' (its Mull not Bermuda Triangle)
Car Off	You must have definite information (Location, OK, Status)

Talkthrough System

During the event the Island will be covered by a series of interlinked Talkthrough units enabling the outstations to remain in contact with control, situated in Rally HQ, at Salen. The system is organised into multiple controlled nets; e.g. North, South and East. Each net is formed by the use of multiple Talkthroughs, so as you move around the Island you will have to change frequencies.

All operators should have a specially printed, **colour map showing the road coverage**. Each colour on the map represents a frequency and has been given a channel number from one to twelve. When you reach the island and collect the final information there will be a sheet detailing the frequencies for each channel.

While mobile around the Island it may be useful to get a feel of what you can use and where. When you are at a fixed location, e.g. finish of stage 2, there will be a channel suggested on the operator schedule, which may not be the obvious choice based on the road coverage map. This is because the road coverage and stage communications have different requirements, however, for end-to-end communications you must **refer to the operator schedule to ensure you are on your allocated channel**.

Do not use personal Talkthroughs. The Group will not authorise any such operation on its Talkthrough permit and any operation will be illegal. Handheld coverage is available at most locations (road sections may be an exception). If communications don't work, talk to the engineering team on Friday afternoon.

Technical Notes

The rally is an extended event that lasts for several days, your equipment will consume large amounts of battery power even when only in receive. Ensure you have sufficient battery power available for the event.

Even with the extensive Talkthrough network, you will **require an efficient antenna system on your vehicle**; we recommend a 5/8th antenna for 2m or equivalent as a reasonable standard.

Most stage coverage is on 2m but a small section of the island is on 70 cms.

In the event of a failure in the Talkthrough system and loss of communications with control an effort should be made to establish communication with the other stations on your stage. The main aim would be to have Start to Finish communications wherever possible, using intermediate stations as relays if necessary. If one station on your stage can contact control by an alternative route please take advice from control as to the action to take. In some cases control may still be able to hear your traffic so please keep airtime to the minimum required for stage operations. It may be advisable to stay on your normal net frequency in the event that communications with control can be re-established

Other communications on the Island

Other Raynet operators will be present on the island as part of the safety crew. They are not providing the event stage communications although they will make use of radio communication to assist their task.

Some rally personnel may also carry 81MHz equipment. However the official use of 81Mhz is restricted to the stages shown in the safety plan where a link to the Raynet net will be provided. Communication during the running of the stage should only take place on the band designated in the safety manual.

Helping out before and after

Anyone can lend a hand by helping to install or take down the facilities around the Island. It will let people get a feel for what the event is all about and let you meet the others involved. Contact Raynet Control if you want to assist.

This is particularly important after the event. We need your assistance to avoid a few individuals still dismantling some of the network on the Tuesday following the event. Engineering tests for next year's event are carried out following the close of the rally. If you wish to assist, contact Adrian GM1FML.

Getting about the Island

A Motoring Overview

This is an overview, of Mull, the Island. Written to assist newcomers and seasoned veterans to make the best of their stay, and at the same time, to ensure that the locals are not upset by our actions.

Roads:

A large percentage of the roads on Mull are single track with passing places.

It is essential that you understand and observe the following rules.

Rule 1.

If you are being followed by another vehicle, which is showing obvious signs that it is in a hurry or wishes to travel faster than your vehicle, pull in at the next available passing place and let it pass.

Rule 2.

Never cross to the offside passing place to allow through passage of other cars, unless under extreme circumstances, i.e. when stopped to allow a large vehicle to negotiate the passage, but even in this case only once all other traffic has stopped.

Rule 3.

If you are on a hilly section, and this describes most of the Island, remember to give way to vehicles coming up hill, if at all possible. This makes sense if you think of the mechanical side of things. It can be very difficult for vehicles, especially those heavily laden, to restart from rest on a hill. The obvious test; would you expect others to make way for you if you were in the same circumstances?

Rule 4.

Always travel at a speed at which you can safely pull up. **REMEMBER** there is nowhere to go bar the ditch on a single-track road, and ditches cause damage. There are not many facilities for repair to cars, and even fewer for repair to people. **SPEED** kills, keep your speed down.

Rule 5.

When travelling at night, don't rely too heavily on your headlights. There will be obstacles on the roads, such as sheep and cattle, which will not show up until the last minute, or may wander into your path at will.

Rule 6.

In the days leading to the start of the rally and once it has begun, take extra precaution with regard to your speed. **REMEMBER** it's rally drivers you will be dealing with, people who are used to driving at breakneck speeds on these and every other kind of roads, but may not understand the above rules and limitations of single track roads.

Always put into practise the following maxim:

Maxim 1

Oncoming visible traffic has priority, I must safely allow them passage, I must not be discourteous, I must pull in, or if need be reverse back to the last passing place, with special reference to Rule 3.

Maxim 2

Once you have stopped in a passing place to allow safe passage of another vehicle, whether oncoming or following, be courteous, wave to them as they pass. **CIVILITY** wins friends, and costs nothing. Be wary of flashing headlights, just because an oncoming vehicle has flashed it's lights doesn't mean that it is safe to proceed, although generally it does, be **WARY** it might **NOT**.

Mull driving is an experience, it is not all bad, but if you put all of the above, and a good dose of common sense, into your island driving both you and all other road users, locals, rally types and tourists, will get benefit from the experience.

FUEL stations are few and far between on the island, make sure you maintain your fuel tank at over half full all the time you are on the island, that way you will never run short, or out of fuel. **REMEMBER** you may have to push your vehicle to a safe place, prior to leaving it to search for more fuel.

Fuel stations are at the following locations:

- 1) MacKay's Garage, Tobermory (Beside new car park, near the Tobermory Distillery).
- 2) The other end of the main street, near the main pier, in Tobermory.
- 3) Salen, Isle of Mull, on the road, which crosses the island from East to West.
- 4) Craignure, opposite the main ferry terminal.
- 5) Craignure, about 1/2 a mile south of the main ferry terminal.
- 6) Various locations in the Ross of Mull, this is an area not covered by the rally.

Control Operations

Control operators are involved to a level of physical, mental and psychological tensions not normally experienced by out-station operators. This is a combination of handling a possible continuous stream of required information, from start to finish of the event, using minimum radio traffic. It is also not helped by being scrutinised during operation.

Good control procedure should minimise the quantity of radio traffic while ensuring quality use of airtime. High skill levels of message handling, recording, logging and distribution are required.

Organisers

Close relationship with the organisers has shown that we can work well together and 'are part of the same Team.' Involve your organiser and 'look' to him for the 'nod' indicating we are nearly working telepathically.

The developing involvement with the organisers has promoted Control to be the information centre, reduced radio traffic and significantly improved efficiency to the degree that 'Control is the place where you get the best picture.'

Tiredness

Tiredness is a major problem. You are on for many hours, unlike outstations, and should learn to pace yourself. Poor operation is to hold onto the mic 'until you fall over sideways.' Better if you swap, have a break, log for someone, have something to eat and then return. Pacing yourself is preferable to being 'ASKED' if you would like a break. The log sheets become less literate as time goes on which suggests that voice communications similarly deteriorate. This we must work together to improve.

Use of Personnel

Using operators 'resident' near control for the early and late periods of each day/night both improves the involvement of the operator and assists others to have 'an extra hour' before arriving.

Consideration should be given to requirements to eat, sleep and enjoy other pursuits.

Out stations meet a variety of people and see cars etc. Control operators won't see anything of what goes on out there.

Logging and Message Forms

The terminology used in filling in these forms should be formal. (It would be helpful if everyone wrote legibly.) We must not let logging standards slip because of tiredness or familiarity.

Police

Working with the police is extremely important. The police record all information and can summon emergency services if required. If you hear something pertinent to the police inform them, they will do the same. This is part of the overall picture of the event.

Control Board

The Event as no other individual sees it. This MUST be kept up to date. The Control Board 'ticker' needs to know if you have received an update. Keeping everything up to date may get you brownie points.

Information for other nets

Always be aware that a message you receive which is mundane may be the info required on one of the other nets. Recovery, Service, Opening car, Safety officer, Engineering or Raynet operators may just be interested.

Control Procedures

Stage Opening

30 minutes before a stage goes live make a role-call of all operators on stage. As well as confirming that the control board is correct it lets all stage operators amend if required their record of who is manning various points.

Number passing

Try to standardise on this procedure as Control operators move from net to net.

Cut out as many callsigns as possible.

Start 2 to Control:	Car numbers for stage 2 over
Control to Finish 2:	Finish 2 ready to receive
	Control announces:
	Send numbers for stage 2 over
	Stage 2 Group 4 cars 23, 24, 18, 12, 17 over
	Confirm Stage 2 Group 4 cars 23, 24, 18, 12, and 17 over
	Confirmed out
Control to Finish 2:	Confirm receipt over
Finish 2 to Control:	Acknowledged out

Stage closing

Record all cars reported as off on a stage on the **Cars Off sheet**. This sheet is also carried by the Opening Car and by Recovery.

When the Opening car reaches the stage start they will request the information of cars still in the stage. This they and Recovery will record in the same basic format.

81MHz Net

Information from the 81MHz MSA sub controls via the link stations should be the same as that from a locally controlled stage. Car 00, First competitor start and finish time, incidents, cars off in stage, total cars in/out and last three cars should be recorded as normal on the control information board. The only information not relayed should be the competitor tracking numbers.

APRS

The APRS system should display the current location of the various tracked officials on the display at your control location. It should therefore be unnecessary to ask these officials for their current position.

Equipment Transportation

Strathclyde Raynet Group is involved in the planning of at least two events, per year, which require major equipment logistical preparation and transportation. The methods employed here are equally applicable for other smaller events undertaken by the Group.

PRE-DEPARTURE

1. Ensure all persons supplying kit are informed that they **MUST HAVE TESTED** the equipment, or provided it in adequate time for others to test.
2. Kit should be delivered to the assembly point in adequate time to permit pre-packaging for the various locations. (Major Events: at least 5 days before departure.)
3. If a van is to be used it should be available at the assembly point at least 24 hours before departure.
4. Radio kits should be boxed with batteries ready for use and labelled for location. Antennas, masts and coaxial cables etc should be bagged and/or labelled to match the radio kits.
5. Distribution lists and instructions for assembly and location should be packed with the kits.
6. An equipment-packing list should be checked as kits are packed for transportation. This list should have been pre-verified by Engineering.

INITIAL DISTRIBUTION

1. No equipment may be removed from the transportation vehicle without the express authorisation of the Equipment Distribution Manager. Any failure at this point will negate the pre-planning of kits for the event.
2. Kit, which will be delivered "late" by individuals, must be assembled into the kits before individual or groups distribute them for installation. All such kit must be checked on the equipment-packing list.
3. Groups of operators installing equipment should be informed to assemble, at a point and at a specific time, so that kits can be distributed according to the plan.
4. Groups should check/test/ensure they have all items required before departure to the installation site. Any shortages or problems should be referred to Engineering. Other kits must **NOT** be "robbed" for expediency.

KIT RECOVERY

1. Kits should be returned to the Van or distribution point 'as they were handed out'. Report any faults, damage or comments in writing for Engineering to consider.
2. Do **NOT** mix-up kits, antennas or batteries, as they may be required for examination after the event.
3. Sites should only have their equipment recovered as Engineering instructs. Further tests may be planned. If it is taken down and you inform 'I have it in the back of my car' you may be told to replace it.
4. On longer events a net permitting volunteers to assist works well.
5. The van or others returning kits to Glasgow should assemble at the distribution point where packing lists can be checked.

POST EVENT

1. Testing of kit maybe required. This is a priority and may delay dispersing kit.
2. Those who initially delivered the same should collect Kit from the original assembly point.
3. Any van used for transportation should remain at the assembly point for 24 hours to enable organised unloading and checking.

Wash down after the event

Traditionally held on the Sunday evening when everybody has had a chance to recover from the Friday/Saturday. The years venue is to be the Salen Hotel. This meeting is a good opportunity to air your views and generate feedback for the organisers.

Other operators who cannot attend are invited to send in comments / feedback in writing to Crawford, GM8HBY. This is an important part of the exercise and all comments, good or bad, will be used to improve next year's event.

Crawford Ross, GM8HBY
Strathclyde Raynet Group
16 Glebe Crescent
Airdrie
ML6 7DH

Tel: 01236 755177
[E-mail: gm8hby@strathclyde-raynet.com](mailto:gm8hby@strathclyde-raynet.com)

Tour of Mull Operators

The Raynet Tour of Mull event has operators from many parts of the country. Most of our personnel return year after year. You may know someone, that we cannot reach, who would like to take part, whether in your Group or elsewhere. This is not a closed event, pass the word around, we will be pleased to have their assistance (and cause them sleepless nights).

Some of the Raynet Groups involved:

Strathclyde
Dumfries & Galloway
East Dumbartonshire
Leicestershire
Greater Manchester
Dundee
Fife
Argyll
Inverness
Cheshire
Four Counties
Perth & Kinross

Remember to keep us informed of any change of contact details if you want to be kept informed of future events.