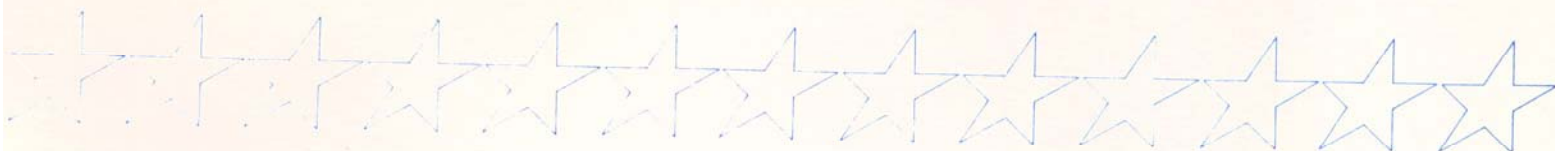




***America's Rally Cup***

# **1977 RULES**



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# NORTH AMERICAN RALLY RACING ASSOCIATION

## 1977 AMERICA'S RALLY CUP RULES

### 1.0 RULES

- 1.1 The rules for all NARRA events shall be established by the NARRA Competition Committee. These rules shall govern all NARRA events counting towards NARRA'S America's Rally Cup.
- 1.2 The organizers of each NARRA event shall be responsible to the NARRA Competition Committee for adherence to these rules. Competitors of each NARRA event shall be responsible to the organizers and the Competition Committee for adherence to these rules.
- 1.3 The NARRA Competition Committee or the Executive Director has the right to make any changes to these rules as may be deemed necessary or advisable. at any time.

### 2.0 COMPETITION COMMITTEE

- 2.1 The NARRA Competition Committee is made up of the original NARRA Stewards appointed in November 1975 and amended May 1, 1976: John Buffum, Tom Grimshaw, Erick Hauge, Gene Henderson, Bob Hourihan, John Nagel and Iain Tugwell.
- 2.2 Each year, prior to December 1st, event organizing clubs may elect a delegate who will represent that organization to the NARRA Competition Committee for the following year.
- 2.3 The members and the delegates to the NARRA Competition Committee, with addresses, are listed in Appendix I of these rules.
- 2.4 The Competition Committee shall appoint one or more Stewards of the Meet, who are not officials or organizers of the event. The NARRA Steward of the Meet shall be completely responsible for proper and fair administration of the event. An official shall not, at any event, have any other duties than those which are clearly attached to his appointment or appointments. He shall not be eligible to compete in any competition at an event at which he is acting as an official.
- 2.5 The Stewards of the Meet shall be responsible solely to the NARRA Competition Committee for enforcing compliance with the Regulations governing the event. They shall act primarily in a judicial capacity and therefore shall not incur any responsibility for the organization or execution of the event. When the NARRA Competition Committee has appointed one or more Stewards of the Meet, such Steward, or if more than one, the Steward appointed as Senior Steward, shall act as chairman of the Stewards of the Meet. The Stewards shall have the power in accordance with these rules to:
  - a) Settle any protest or dispute during an event, subject to the right of appeal provided by these Rules.
  - b) Inflict penalties of time or distance.
  - c) Inflict a reprimand or fine.
  - d) Pronounce exclusion but not suspension or disqualification.
  - e) Prohibit from competing any driver who, or any automobile which they consider to be dangerous or is reported as such by the Clerk of the Course.
  - f) Exclude from any competition any driver whom they consider as, or who is reported to them by the Clerk of the Course or the Organizing Committee as ineligible to take part therein, or whom they consider guilty of misbehavior or unfair practice.
  - g) Order the removal from the course and its precincts of any competitor who refuses to obey the order of a responsible official.
  - h) In the case of force majeure or for reasons of safety either i) postpone (ii) abandon or (iii) stop a competition, declare it "no contest" and arrange for it to be restarted or alternatively declare the Event concluded and determine the results based on the competitors positions at that time.
  - i) Appoint a temporary substitute or substitutes to replace Steward (s) not able to perform their duties.
  - j) Enquire into allegations of reckless driving and if appropriate refer the matter to the NARRA Competition Committee for a hearing.The following authorizations may be made by the Stewards only at the request of the Clerk of the Course.
  - k) Authorize amendments to the event's Supplementary Regulations for reasons of safety or force majeure.
  - l) Authorize a change of driver or automobile.

### 3.0 SANCTIONS

- 3.1 In order to be eligible for inclusion in NARRA's America's Rally Cup a proposed event must be sanctioned by the NARRA Competition Committee.
- 3.2 Organizers applying for an event sanction must submit a detailed description of the proposed event to the NARRA Competition Committee via the official sanction application form which shall be available from NARRA. This sanction application must be received at least 90 days prior to the scheduled start of the event. A tentative sanction request must be submitted to the NARRA Competition Committee by November 1st of the year prior to the proposed event.
- 3.3 The NARRA Competition Committee has the right to refuse sanction, or a sanctioned event may have its sanction revoked, if it does not conform to the required standards. Once any competition has begun the sanction of that competition may not be revoked. The application for sanction, and the acceptance of it, shall constitute recognition of these rights.
- 3.4 All related materials involving standards for sanctioning will be available from NARRA in the sanction application package.
- 3.5 A sanction fee of \$100 plus \$5 per accepted entry shall be paid to NARRA by each organizing club within 10 days following the event.
- 3.6 A complete package of organizational procedures and materials is also available from NARRA in the form of the Guidelines For Organizers (GFO's). These GFO's must be strictly adhered to and organizers are responsible to the NARRA Competition Committee and the competitors, for their implementation and compliance.
- 3.7 All NARRA events shall be tests of driving ability and vehicle preparation. They will be point to point timed tests with safety in mind at all times.
- 3.8 All event entry fees must be approved by the NARRA Competition Committee.
- 3.9 NARRA has negotiated an excellent master plan of liability insurance that will be available to each event organizer at no extra charge. Event organizers may wish to purchase additional insurance to provide medical benefits to participants. Arrangements of this sort can be brought to the attention of the NARRA insurance underwriters.

- 3.10 Additionally, the organizers may arrange for third party liability protection for all drivers covering personal injury and property damage liability which will be valid on the stages.
- 3.11 A minimum local prize fund, in addition to that provided by the national sponsors, must be offered by each event organizer. This local prize fund must include at least \$750 per event, of which, 80% must be returned to the top five overall finishers. Quality token awards, such as trophy mugs, bowls or plates, must also be awarded to the top five overall finishers. Organizers are encouraged to offer additional awards as they see fit.

#### 4.0 SUPPLEMENTARY REGULATIONS

- 4.1 Each NARRA event shall have supplementary regulations supplementing these rules.
- 4.2 Supplementary regulations shall be published no later than 30 days prior to the start of each event and forwarded to all entries within 24 hours from the date their entry received and/or accepted.
- 4.3 The supplementary regulations shall contain all local rules governing each individual event along with detailed related data concerning the method of implementing the NARRA required timing and scoring rules, the event's penalties and the awards. The supplementary regulations shall also provide all other information essential to the competitor's understanding of the event and detailed regulations governing the actions of service crews.
- 4.4 It shall not be necessary to reprint any item covered in these rules in an event's supplementary regulations.
- 4.5 Application for entry in any NARRA event shall be made by means of the official entry form provided to all event organizers by NARRA. This form must be included with each event's pre-event mailings and/or each copy of the supplementary regulations.
- 4.6 The supplementary regulations must state approximately when, and where, scores will be posted and displayed.
- 4.7 The supplementary regulations of each event must state when, and where, awards will be presented.

#### 5.0 ENTRY REQUIREMENTS

- 5.1 Application for entry in a NARRA event may be made by anyone holding, or having applied for, a NARRA Entry Permit.
- 5.2 Each competitor in a NARRA event must possess a NARRA Competition License. In the case of foreign competitors, the possession of an FIA License, or a competition license issued by a recognized motorsport association in their country of residence, shall suffice.
- 5.3 Each competing vehicle must have two, and only two, occupants at all times. Once the competition has begun there shall be no substitution of crew members for any reason.
- 5.4 Event organizers shall permit non-NARRA members to participate in any NARRA event as long as they comply with Article 5.0. However, non-members shall not be eligible to receive and/or collect points in NARRA's America's Rally Cup.
- 5.5 NARRA, and each event organizer, have the right to bar anyone from participating in any NARRA event. If an entry is refused, notification of such refusal must be sent to the entrant affected at least 5 days prior to the scheduled start of the event in question. Such notification must also be sent to the NARRA Competition Committee at the same time. Both notifications must be sent by registered mail.
- 5.6 Each entrant shall have in force, insurance covering the vehicle entered for public liability and property damage, valid for all portions of the route except the stages.
- 5.7 Entry fees must be refunded in full if the event is canceled or postponed more than 24 hours; and refunded completely if any entry is refused. Entries withdrawn prior to 21 days before the scheduled start of an event shall have 50% of their entry fee refunded. After this date refunds will not be made.

#### 6.0 SEEDING PROCEDURES

- 6.1 For all NARRA events, to be eligible for the seeded draw prior to each event, all entries must be received by the event's registrar at least 14 days prior to the scheduled start of the event. Entries received after this date must start at the end of the seed group for which they qualify. An additional entry fee shall be assessed to any such entries.
- 6.2 A seeded draw must take place prior to each event and shall be based solely on the following criteria and/or that information to be supplied on the official event entry forms. No driver may be included in a seed group to which he does not qualify without prior consent from the NARRA Competition Committee. There will be six seed groups. The qualifications are as follows:
- a) SEED ONE: all FIA listed drivers plus all drivers with 100, or more, NARRA seeding points as a driver
  - b) SEED TWO: all drivers with 40, or more, NARRA seeding points as a driver
  - c) SEED THREE: all drivers with 20, or more, NARRA seeding points as a driver
  - d) SEED FOUR:
    - a) all drivers placing in the top 5 positions overall, as a driver in any FIA, Pro, Canadian National, or NARRA rally.
    - b) all drivers placing in 6th to 10th positions overall, in any FIA, Pro, Canadian National, or NARRA rally.
  - e) SEED FIVE: previous performance rally experience
  - f) SEED SIX: no previous performance rally experience.

Annually, in computing seeding points, only a two calendar year period (the current and preceeding calendar year) will be used. (Note: once a year's competition begins that becomes the current year. This allows lower seeded drivers to change seeds in mid-year).

- 6.3 Seeding points will be assigned to the top 10 finishing drivers of Pro, Canadian National and NARRA rallies using the following formula:
- 20 points for each first place finish, 15, 12, 10, 8, 6, 4, 3, 2, and 1 point through tenth place.
- 6.4 Drivers shall be seeded for the calendar year in which they first qualified, plus one year following the year of qualification, by which time they must have requalified or will be dropped to the seed for which they do qualify.
- 6.5 The current Seeded Driver's List is included in the Appendix to these rules. NARRA shall provide updates to this list as changes occur. Such updates shall be sent to all NARRA event organizers as they occur and such updates are to be posted at each event's documentation by the event organizers.

- 6.6 When giving information regarding seeding to event organizers via the official event entry form it shall be the entrant's responsibility to ascertain that such information is correct and accurate. Entrants providing erroneous seeding information may face possible revocation of their NARRA Competition Rally License.

## 7.0 REGISTRATION AND DOCUMENTATION REQUIREMENTS

- 7.1 The following documents must be available for inspection by each event organizer:
- a) a valid driver's license for each competitor
  - b) a valid NARRA Competition License and NARRA Entry Permit for each entrant (or equivalent for foreigners)
  - c) a valid NARRA Competition License for each competitor (or equivalent for foreigners)
  - d) a valid FIA Entrant's License (required for all FIA listed events)
  - e) a valid FIA Competition License (required for all FIA listed events)
  - f) a letter permitting the use of the vehicle in any case where the owner of the vehicle is not one of the drivers
  - g) a valid registration, or certificate of ownership, for the vehicle entered
  - h) a valid certificate of insurance for the vehicle entered
  - i) a letter of permission from a parent, or guardian, for participation in the event (required of all persons under the legal age of majority in their place of residence.)
- 7.2 All competitors and service crew members, as well as organizers and workers, of any NARRA event must sign the official waiver, available at each event's Registration and Documentation area, releasing all parties designated in the waiver from any, and all liability of any nature, whatsoever, in connection with the event.

## 8.0 SAFETY SCRUTINEERING

- 8.1 Every vehicle entered in a NARRA event must be subjected to a safety scrutineering immediately prior to the event. Vehicles may be subject to reinspection at any time during the remainder of the event by the organizers. Vehicles found to be unsafe will be barred from further competition unless the situation can be rectified within the timetable of the event.
- 8.2 At safety scrutineering each vehicle must be presented ready to start the event. The onus shall rest completely on the entrant, or his agent, to present his vehicle(s) in a safe, and legal, condition at all times.
- 8.3 The safety scrutineers will be responsible to the Steward of the Meet, who shall be designated by the NARRA Competition Committee prior to each event. The Steward of the Meet shall be the final authority on all verifications to be checked by the safety scrutineers.
- 8.4 The safety scrutineers will inspect all vehicles in accordance with the following standards which shall be operable and in safe condition:
- a) headlights (high and low beams), parking lights and taillights
  - b) stoplights (cut-off switches not permitted)
  - c) horn, windshield wipers and directional signals
  - d) footbrakes (to be checked for pedal pressure and travel)
  - e) brakefluid level
  - f) tires, including spare (to be checked for sidewall and tread condition)
  - g) seat belt and shoulder harness mountings
  - h) seat mounting points
  - i) roll bar (and cage) installation and weld/material inspection
  - j) fuel tank(s) installation
  - k) all requirements of Articles 9.0 and 18.0
- 8.5 The exhaust systems of all competing vehicles must not exceed 86 db (A) at 50 feet while the vehicle is stationary. The engine shall be brought to 3500 RPM, held there momentarily, and returned to closed throttle. Any temporary noise attenuating device shall not be permitted. Each vehicle must be able to pass this test at any time during the event or face possible exclusion.
- 8.6 A complete suspension check of all vehicles must be conducted to determine that each vehicle is in roadworthy condition.
- 8.7 In addition, each vehicle must have on board and in an accessible location the following items:
- a) a comprehensive first aid kit
  - b) 180 minutes of road flares
  - c) a DOT approved self-standing warning triangle
  - d) one fire extinguisher of at least a 5 lb. and/or 10 B.C. rating with sufficient mounting brackets.
- 8.8 In addition, a check for the following will be performed:
- a) that no gas cans are in the vehicle
  - b) damaged or deteriorated wiring
  - c) that all items are securely tied down throughout the vehicle.
- 8.9 The crew of any vehicle which has initially failed to meet the requirements of the safety scrutineering shall be given a reasonable amount of time to remedy the deficiency and to resubmit the vehicle to the safety scrutineers.

## 9.0 VEHICLE ELIGIBILITY

- 9.1 The onus shall rest completely on the entrant, or his agent, to provide proper and complete evidence as shall be necessary to prove the eligibility of each vehicle entered at any time during a NARRA event.
- 9.2 All vehicles must be neat and clean and in sound condition. This shall include the engine compartment, passenger compartment, storage compartments and undercarriage. Any vehicle which would reflect poorly on the event, or the America's Rally Cup, will not be allowed to start.
- 9.3 All vehicles shall be street-legal, production models, and legally licensed and registered. Such vehicles as dunebuggies, single-seaters and one-offs, however, will not be allowed to enter.
- 9.4 All vehicles, regardless of driveline components shall be allowed to enter. However, as of January 1st, 1978, all vehicles must be fitted with the basic engine block that is offered as standard equipment, or as an option, or as an homologated variant by the manufacturer of the model vehicle, for the model vehicle in which it is fitted.

- 9.5 As of January 1st, 1978, no vehicle shall weigh less than 90% of the specified weight as stated by the manufacturer for that specific model vehicle.
- 9.6 As of January 1, 1977 all vehicles with first drivers qualifying for Seeds One and Two must be fitted with a roll cage constructed to the specifications included in Appendix of these rules. All other vehicles must be fitted with either a roll bar or roll cage constructed to the specifications included in Appendix of these rules. (Note: Drivers moving up into Seeds One and Two shall ensure their vehicles comply with this rule as soon as they have moved up in seed.)
- 9.7 As of January 1st, 1979 all vehicles must be fitted with a roll cage constructed to the specifications included in the Appendix to these rules. The diagonal cross bracing may be deleted.
- 9.8 All vehicles without permanent and non-removable roofs, as produced by the manufacturer, must be fitted with a roll cage constructed to the specifications included in the Appendix to these rules. The diagonal cross bracing may be deleted.
- 9.9 A fireproof bulkhead shield is mandatory between the passenger compartment and the fuel storage compartment.
- 9.10 Batteries must be securely mounted with metal-to-metal tie downs. If removed from the stock location, all batteries shall be mounted inside of non-conductive boxes. The only batteries that shall be permitted to occupy the passenger compartment shall be those which are completely sealed and so designed or modified to prevent acid spillage.
- 9.11 The latch for the cover to the engine compartment must be fitted in such a way that the engine cover can be completely opened from the outside of the vehicle.
- 9.12 No slicks or studded tires shall be permitted.
- 9.13 Each vehicle shall be fitted with a laminated front windscreen.
- 9.14 Two-way radios will be allowed in all vehicles.
- 9.15 At a minimum, four-point competition approved seat belts and shoulder harnesses, fitted with quick release buckles, shall be installed for each crew member in every competing vehicle. These must be worn, securely fastened, on all the stages.
- 9.16 A 1970, or later, Snell approved helmet (complete with sticker) shall be carried in every competing vehicle for each crew member. Such helmets must be of the appropriate size for each crew member and the helmets must be worn, securely fastened, on all the stages.
- 9.17 Each vehicle will be fitted with at least one hundredths reading odometer which must be securely mounted in front of the co-driver.
- 9.18 No gasoline, or similar fuel of any type, other than that carried in the fuel tank(s) shall be carried in any competing vehicle.
- 9.19 It must be possible to turn off all lights on the front of the vehicle which could possibly blind the driver of an oncoming car from a single switch which must leave the low beam headlights operative.
- 9.20 If the vehicle entered has a back-up light operated by a manual switch, a warning light inside the passenger compartment must come on whenever the back-up light is turned on.
- 9.21 All other vehicle modifications are permitted provided the vehicle will still be able to pass the strict safety scrutineering.

## 10.0 PRACTICING

- 10.1 Practice in the area of an event (i.e.: presence in the area of an event without authorization, in writing from the organizers) within 90 days prior to the event, will not be permitted. Violation of this rule shall be cause for suspension of NARRA Competition Rally License for all persons so involved for the next three events on the NARRA Calendar at the time of suspension. Notification of a violation must be sent to both the involved persons, and the NARRA Competition Committee, by the event organizers by registered mail. A response must be made by the involved persons, in writing, within seven days and sent to the event organizers and the NARRA Competition Committee, by registered mail. A final decision will be sent to both the involved persons, and the event organizers, by the NARRA Competition Committee and sent by registered mail within an additional seven days.
- 10.2 Pace notes are prohibited on all NARRA events in 1977.

## 11.0 ROUTE

- 11.1 The organizers, or the NARRA Steward of Meet, have the right to cancel or amend any portion of the event, or time schedule, before, during, or after the start of any event.
- 11.2 The maximum speed assigned in the route book to any transport section must be at least 10% under the maximum legal limit that is posted, or assigned, through the area in which the event is being run.
- 11.3 The minimum length of any event shall be 250 miles. At a minimum, 30% of the total mileage of each event must be stage competition.
- 11.4 Only events of the stage format will be sanctioned. The stage format is a series of driver's sections, over roads completely controlled to the public during the running of the event, connected by a series of low speed transport sections.
- 11.5 Selectives, where the roads to be used for the driver's sections are not completely controlled to the public during the running of the event, will not be permitted.
- 11.6 Complete permission for the use of roads must be secured from the legal authorities under whose jurisdiction each event traverses. Such permission is to be gained through "in person" contact with the authorities. Subsequent permission for road use and/or closure shall be posted on the official notice board at each event. A copy of all permissions, plus all organizers correspondence with the legal authorities shall be forwarded to NARRA.
- 11.7 There shall be a standard route book format adhered to by all events. This format shall be the same as the FIA format for international route books and must include: all timing information, overall mileage, incremental mileage, tulip format, and other information as deemed necessary to complete the route. Page numbers shall be used in lieu of instruction numbers. An example of this format will be found in the Appendix to these rules.
- 11.8 A crew's action of beginning the competition shall constitute acceptance of the route book as issued.
- 11.9 Each route must be measured in statute miles by a non-driven wheel. The official odometer calibration run must be made available to all competitors no later than the opening of registration and documentation.
- 11.10 Any changes, or additions, to the route book noted before the beginning of any event must be supplied to all competitors via an addendum sheet given to all competitors for their own use.

- 11.11 On the stages, only, arrows must supplement the route instructions at all bad bends, dangerous points or intersections where a competitor might go off route. However, these arrows only supplement the route instructions which describe the official route at all times. The arrows will be the standard international design (21" x 10" x 21") and will be made available to all organizers, in sufficient quantities, by NARRA.
- 11.12 An official notice board will be set up in a prominent place at each event's headquarters. On this board shall be posted all pertinent information and any official announcements throughout the event. Along the route, emergency instructions may sometimes be needed. A sheet with the changes shall be handed to each crew who shall be given sufficient time to note any, and all, corrections or notations, after which time each crew must immediately sign a sheet stating that they have read the changes and fully understand them. Instructions received via this manner shall have the same force and effect as these rules and the event's supplementary regulations, and/or the route book. Each crew shall be deemed properly informed of any, and all, instructions so issued. No verbal instructions shall be accepted by competitors and each emergency addendum sheet must be signed by the designated Chief Organizer or his officially appointed agent.
- 11.13 Drivers meetings as such are not permitted. There may be an introduction of officials. However, no questions, either written or oral, shall be answered at this time.
- 11.14 All questions to the organizers must be in written form and received by the event organizers at least 8 hours before each event is scheduled to start. The answers to all questions received by the organizers in this manner must be posted on the official notice board at least 4 hours before each event is scheduled to start.
- 11.15 A service crew briefing shall be allowed and any and all questions may be answered. *However, the only questions that are allowed shall be those pertaining to service.*
- 11.16 Each NARRA event must utilize at least one course closing vehicle, at all times, for the purpose of assisting stranded competitors and to assist in closing controls.
- 11.17 The driver, or owner, of a vehicle competing in a NARRA event, which is involved in an accident resulting in personal injury, or vehicle or property damage, must obtain a NARRA Accident Report form from the organizers, or NARRA, and complete and file the Report form within 10 days of the accident.

## 12.0 CONTROLS

- 12.1 The following types of controls will be encountered:
- MAIN TIME CONTROLS** — located at the start and finish of each section of the event. Early arrival will be permitted and crews may check in early but must request their correct time. Crews must always check out of these controls at their correct time.
  - TIME CONTROLS** — located at the transport sections immediately prior to the start of all stages. Early arrival is *NOT* permitted. A time of departure for the stage will be assigned and, after receiving the timing sticker, the crews must proceed *IMMEDIATELY* to the Start Control.
  - START CONTROLS** — located at the start of all the stages approximately 50 yards after the Time Control. Each vehicle will start a stage at the 00 hundredth mark of its departure minute (as assigned by the Time Control).
  - FINISH CONTROLS** — located at the end of all the stages and the time will be recorded as the vehicle passes the control board. (This is the flying finish). At a suitable stopping location well after the flying finish (about 150-200 yards) there will be a timing station where vehicles must stop and receive the timing sticker. The watch shall always be located at the timing station.
  - SECRET OBSERVATION CONTROLS** — may be located within or at the end of Quiet Zones for the purpose of checking compliance with any Quiet Zone regulations which may be required by an individual event in the supplementary regulations, or, anywhere along the route for the purpose of inspecting safety equipment, or, not less than 2.0 miles after a Finish Control for the purpose of verifying that vehicles have not exceeded an average speed of 50 miles per hour on a transport section — from the prior finish control. The time will be recorded as the vehicle passes the control board unless the vehicle is observed to have stopped within sight of the Observation Control, in which case the time at which the vehicle stopped will be recorded as the arrival time. The correct time of arrival at the control following an Observation Control shall always be calculated as if the Observation Control did not exist. Each event shall utilize at least two observation controls.
- 12.2 All controls shall be accompanied by the standard control boards as described herein and as depicted in the Appendix to these Rules. NARRA shall provide an adequate supply of each type of board to all event organizers.
- 12.3 The placement of control boards shall be as follows:
- MAIN TIME CONTROL AND TIME CONTROL** — The beginning of the control area shall be indicated by board No. 3 that is located .05 miles before the actual control station. The location of the control station shall be indicated by board No. 1.
- OBSERVATION CONTROL** — Same as a Time Control.
- FINISH CONTROL** — The Flying Finish shall be indicated by board No. 2. The timing station (where all competitors must stop to receive their timing stickers) shall be indicated by board No. 1. The end of the control area shall be indicated by board No. 3, located .05 miles beyond the timing station.
- 12.4 Repair or maintenance work of any type, other than the cleaning of glass and/or numbers, will not be permitted within any control area (i.e. .05 miles in either direction of a control).
- 12.5 Reversing of vehicles (in any manner) shall not be permitted in the area of any flying finish controls as defined in 12.3.
- 12.6 All Start and Finish time controls shall be located on the right side of the road.
- 12.7 The location of all controls, except the secret observation controls, will be found in the route book.
- 12.8 Each timing control must be equipped with at least two accurate time pieces.
- 12.9 The only type of timing control will be the open control. Closed, unmanned, passage, or any other type of timing control, will not be permitted.
- 12.10 At all controls, including secret observation, competitors must be required to stop and have their time of arrival recorded.
- 12.11 Crews must visit each control in the correct sequence and from the direction set out in the route book. Arrival times will not be issued until the vehicle, and its crew, have actually passed the control board, except in the event of a major delay which makes it impractical for all vehicles to pass the control board. In this case the crew may approach the control on foot and request their time of arrival.

### 13.0 TIMING

- 13.1 All watches must be synchronized with WWV or CHU radio time signals. The hour must be adjusted to local time.
- 13.2 The timing minute shall read from 00 to 99 hundredths of a minute. On transport sections, all timing will be done to the whole minute. On the stages all timing will be done to the hundredth of a minute.
- 13.3 At all controls the time of arrival, in hours and minutes, must be the time of departure unless a later time of departure is assigned by the control officials.
- 13.4 Times will be recorded by control officials and marked on the timing stickers that shall be placed on the route cards supplied to all crews. Crews must run according to the times on their route cards at all times. It shall be the crew's responsibility to ensure that all timing information is correct and legible and located in its proper location on the route card. The organizers shall assume no responsibility for lost or mutilated route cards. NARRA will provide all organizers with sufficient quantities of preprinted event timing stickers and route cards.
- 13.5 The exact elapsed time required between any two controls, in minutes, will be stated in the route book. There will be no target times for the stages, rather, the time taken to traverse the stages shall be the penalty assessed. However, each stage shall be assigned a "lateness time" in the route book for the sole purpose of calculating Maximum Permitted Lateness (MPL).
- 13.6 Maximum Permitted Lateness (MPL) for each event shall be stated in the supplementary regulations. One minute of MPL will be accumulated for each whole minute of lateness at the controls and for each whole minute taken in excess of the "lateness time" to traverse each special stage. MPL may not be reduced by early arrival at controls. "Lateness time" must be generous and will represent the time that the event organizers feel the slower vehicles will require to traverse a stage.
- 13.7 Maximum Permitted Earliness (MPE) for any event shall be 10 minutes. One minute of MPE will be accumulated for each minute of early arrival at controls. MPE can not be reduced by late arrival at controls.
- 13.8 Should a control not be placed the correct time of arrival at the next control that is placed shall be calculated using the elapsed times and the "lateness times" as listed in the route book.
- 13.9 To qualify as a finisher of any NARRA America's Rally Cup event each crew must:
  - a) check into every control
  - b) not have exceeded MPL or MPE
  - c) not have been excluded for any reason.
- 13.10 Stewards may cancel a portion of the route (stage or transit zone) or cause the event to be concluded if they judge that one or more competitors have been unfairly blocked by uncontrollable circumstances. Maximum Permitted Lateness shall be frozen between the control preceding the blockage to the next scored that will be scored route in/time out.

### 14.0 PENALTIES

- 14.1 Each whole minute of lateness, or earliness, on transport sections must be penalized at the following rate:
  - .50 minutes for each whole minute late
  - 1.00 minutes for each whole minute early.
- 14.2 Each hundredth of a minute late on the stages must be penalized at the following rate:
  - .01 minutes for each hundredth of a minute late.
- 14.3 Since zero target times will be used on all the stages it shall be impossible to be early on any stage.
- 14.4 All crews are responsible for scoring their own route cards and for turning them in, prescored and pretotaled, at all route collection points. These collection points must be noted in the route book. Unscored, or incorrectly scored cards, shall receive a penalty, if preannounced, in the supplementary regulations, by the event organizers. Such a penalty shall not be greater than .50 minutes per error. All route cards must be audited, by the event organizers, before any scoring is determined to be official and final.
- 14.5 When scoring an entry's route card the organizers have the right to correct whole minute timing errors, if any occur. The organizers are required to act upon any such whole minute timing errors brought to their attention.
- 14.6 Provisional scores must be displayed as often as possible.

### 15.0 RESULTS

- 15.1 Complete provisional scores (control by control), plus totals, shall be posted at one time for all competitors. They shall be posted not more than 90 minutes after the latest arrival time of the last possible finisher.
- 15.2 Failure to post complete scores before the latter time requires that Provisional Results must be mailed. Complete scores may be posted at a later time for public relations purposes and the general information of competitors, but they shall be considered unofficial. Inquiries and/or protests may not be entered concerning them and they shall not determine whether results are final or provisional.
- 15.3 Leg totals for any or all competitors may be posted at any time for public relations purposes and general information. Partial scores so posted shall be considered unofficial. Inquiries and protests may not be entered concerning them and they shall not determine whether results are final or provisional.
- 15.4 The score board must show exactly the penalties calculated from the route card of each competitor. Any correction must be indicated as well as the crossed out penalty.
- 15.5 Corrections to the scores as a result of inquiries or protests shall be made as soon as possible and must be posted at the finish of the event. The time of the modifications shall be noted adjacent to each total score modified.
- 15.6 When the inquiry and protest proceedings (or the time limits for same) have finished (16.22) the results are final if the scores were posted within the time limits allowed in 15.1.
- 15.7 Once the results have been properly declared official and final they may not be changed even if an error should be discovered later.
- 15.8 Official results must be sent by first class mail, to arrive within 10 days of the finishing date of the event, to all entrants, competitors, the Steward of the Meet and NARRA headquarters. To be official the results must be signed by the event organizer, contain control by control scores plus totals and the final overall positions which must be listed in finishing position order.
- 15.9 If a protest meeting is held as described under 16.19 and if protests are considered, another set of Provisional Results must be issued containing:
  - a) the protest meeting decisions of all protests considered
  - b) a complete set of scores (control by control) modified according to the decisions, if scores are modified.



- 15.10 This set of Provisional Results must be sent by first class mail to all persons described in 15.8 within 10 days of the protest meeting.
- 15.11 If Provisional Results have been declared final without change because a protest meeting was held as described under 16.19 and no protests were considered, the event organizer shall send by first class mail to the persons described in 15.8, a notice stating that the Provisional Results as mailed are final as of a specific date, and containing all other pertinent information. Such a notice shall be mailed within 10 days of the date when results were declared final.
- 15.12 Crews having equal numbers of points shall be considered tied. Subsequent positions shall be enumerated on the basis of the number of vehicles listed ahead. Equal NARRA points shall also be assessed.

#### 16.0 INQUIRIES AND PROTESTS (GRIEVANCES)

- 16.1 No inquiry or protest is allowed for force majeure. Force majeure is defined as an act of God and may include the following, or any other major problem the rally encounters:
- a) road closures
  - b) road/stage blockages (by natural and/or physical forces)
  - c) directions by anyone other than the event organizers after the route has been deemed open.
- 16.2 Once the route is deemed open it is the driver's responsibility to complete it as best they can.
- 16.3 Competitors may query or protest any matter, other than baulking and force majeure, including disregard for these rules or the event's supplementary regulations which may have occurred during an event's running.
- 16.4 While no query or protest is allowed for baulking, the event organizers may exclude, or otherwise penalize, any competitor found to have unreasonably delayed another.
- 16.5 The protest fee shall be \$25 per protest. All fees must be paid in cash and will be returned if the protest was submitted in good faith, regardless of its disposition.
- 16.6 In any case not foreseen by these rules, or an event's supplementary regulations, it shall be decided by the Protest Committee using the spirit of these rules.
- 16.7 There shall be no appeal procedure available to either competitors or organizers.
- 16.8 All protests concerning an individual event shall be settled by a committee made up of three people. The committee shall be chosen by the NARRA Steward of the Meet. He shall select two other people of his choice and he shall chair the committee. In no case will any of the people selected be competitors or officials in the event under protest. The make up of the committee shall be announced prior to the start of the event.
- 16.9 The right to a grievance (inquiry or protest) lies with any competitor and/or official who may consider himself aggrieved by any decision, act or omission (other than mentioned in 16.3) of an organizer, official or competitor, or other person connected with any competition in which he is or has been taking part.
- 16.10 A grievance may consist of an inquiry or a protest and shall be subject to the rules set out below in 16.11 and 16.13. All grievances submitted at the start, finish or end of a section of an event shall be submitted to the NARRA Steward of the Meet on grievance forms obtained from him. No fee need accompany an inquiry. The NARRA Steward of the Meet shall be available throughout the event to receive written inquiries. The NARRA Steward may accept inquiries which are submitted on the proper forms and within the proper time described under 16.11. However, inquiries concerning the calculation of a score (16.11d) may not be accepted unless the posted score was official as defined in 15.1. When he accepts an inquiry, he shall note the time it was received, return one copy to the inquirer, post one copy and deliver the remaining copies to the organizer. He shall then accept the organizer's replies to the inquiries, return one copy to the organizer and post the remainder or mark inquiries "void" as described under 16.12c. To accept a protest it must be on the appropriate form and submitted within the time limits described under 16.13 and be accompanied by the \$25 protest fee. Upon accepting the protest he shall note the time received, return one copy to the competitor, post one copy and deliver the remaining copies to the protest meeting and the protest committee. After convening the protest committee he shall post a notice regarding the time and place of the protest meeting, note the time this notice was posted and give a copy of this notice to the protest committee. Upon a decision of the protest committee the NARRA Steward shall note the time the decision was rendered on the protest form, keep one copy for the protest committee and post the remaining. All postings shall be done on the official notice board. After the event the NARRA Steward shall receive protests by mail if applicable under 16.13b.
- 16.11 The following rules govern the submission of inquiries:
- a) any inquiry as to the validity of an entry, qualification of a competitor or vehicle or any matter that could be reasonably expected to be known before the start of the event must be submitted within 30 minutes after the close of scrutineering, and/or registration and documentation.
  - b) any inquiry by a competitor concerning the accuracy of a watch must be made within 30 minutes of the competitor's Time In at the finish of the event.
  - c) any inquiry from a competitor concerning a mistake or irregularity during the event or which only became evident during the event must be submitted within 30 minutes of the competitor's Time In at the finish of the event.
  - d) any inquiry from a competitor concerning the calculation of a score must be submitted within 30 minutes of the time the score was posted or modified.
  - e) The NARRA Steward may grant an extension to a competitor's allowable time to submit an inquiry in order to make it physically possible for the competitor to submit the inquiry.
- 16.12 The following are rules governing the replies to inquiries:
- The organizers reply to an inquiry must be submitted to the NARRA Steward within the following time limits:
- a) before the due time of arrival of the first car at the finish of the event or within 30 minutes of the time the inquiry was posted, whichever is later
  - b) within one hour of the maximum lateness of the last vehicle to arrive at the finish of the event
  - c) within 30 minutes of the time the inquiry was posted.
- The organizers reply to an inquiry shall state specifically what changes are to be made to the scores as a result of the inquiry. The organizer shall obtain one copy of the reply and give it to the scorers. The NARRA Steward may grant an extension to the organizer's allowable time to reply to an inquiry in order to make it physically possible for the organizers to prepare a reply. If the NARRA Steward believes that sufficient extension has been granted to the organizer's allowable time to reply to an inquiry,

16.12 continued . . .

or if the organizer so requests, he shall retrieve the inquiry from the organizer, mark it "void", mark the time on it and post it.  
(It should be noted that in so doing, the Steward voids the competitor's opportunity to have the inquiry answered by the organizer.)

16.13 The following are the rules governing the submission of protests:

- a) If the reply to an inquiry is unsatisfactory to a competitor, or if the inquiry is marked "void" as in 16.12 above, he may submit a protest concerning the same matter as the inquiry within 30 minutes after his Time In at the finish of the event or within 30 minutes after the time the reply was posted or the inquiry marked "void" whichever is later
- b) If the scores are not posted as per 15.1 at the finish, a competitor who believes that an error has been made in the calculation of a score, may submit a protest concerning that error by mail. A full statement of the protest shall be sent by first class mail to the NARRA Steward of the Meet for that event (accompanied by the appropriate fee) with a copy of the protest being sent to the organizers so that it will be received by the NARRA Steward in time for the protest meeting as listed in the provisional results.

16.14 If any protest is submitted as in 16.13 a protest meeting must be held at the finish of the event.

16.15 The protest committee, upon receiving the protest, shall verify that the protest has been properly submitted, as per 16.13, and then submit to the NARRA Steward to post a notice dealing with the time and location of the protest meeting. Such time must be within 30 minutes of the posting of the protest.

16.16 The protest meeting shall not be held sooner than 30 minutes after the maximum lateness for the last vehicle to arrive at the finish of the event, nor sooner than 30 minutes after the notice of the protest meeting is posted.

16.17 During the protest meeting all persons wishing to present evidence shall be allowed to do so.

16.18 Following the protest meeting the protest committee shall prepare a reply and the NARRA Steward of the Meet shall post it. The reply shall contain their decision and state specifically what changes are to be made to the scores as a result of the decision.

16.19 If the scores were not posted in accordance with 15.1 the date of the protest meeting to hear those protests submitted by mail shall be included with the Provisional Results. The meeting shall be held at least 15 days after the mailing of Provisional Results and shall be closed (only the original protest committee shall be allowed to attend).

16.20 At this protest meeting the protest committee shall first verify that each protest was properly submitted with the proper fee and then rule on it. The decisions of the protest meeting shall be sent by first class mail or presented to the organizer within 24 hours after the protest meeting and shall state specifically what changes are to be made to the scores as a result of the decisions. The organizers shall then issue another set of Provisional Results (see 15.9).

16.21 As of January 1st, 1977, when dealing with a verification check concerning the teardown of a competing vehicle, where eligibility has been challenged, the protestor shall post a fee of \$300 in cash to cover initial bond for the teardown. Should the challenge be unsuccessful the entire bond, plus any and all other charges are to be paid by the protestor. If the challenge is successful the bond is to be returned and the illegal vehicle's entrant shall bear all teardown charges. The entrant and the participating crew shall be banned from all NARRA events for the period of 6 months, from that date.

16.22 The grievance proceedings at the finish of an event have finished when:

- a) each inquiry posted has been replied to or marked "void", and 30 minutes have elapsed since the reply was posted or the inquiry marked "void"
- b) each protest posted has been heard at a protest meeting and the decision has been posted and 30 minutes have elapsed since the decision was posted
- c) all competitors have checked in at the finish and 30 minutes have elapsed since the Time In of the last vehicle, or 30 minutes have elapsed since the maximum lateness time for the last vehicle to arrive at the finish
- d) the scores have been posted in accordance with 15.1 and the modifications resulting from all posted decisions have been made to the scores, and 30 minutes have elapsed since any score has been posted or modified, or
- e) the scores were not posted in accordance with 15.1.

16.23 The organizers, the NARRA Steward of the Meet, the protest committee, and all scorers must remain at the finish of an event until the grievance proceedings, as outlined in 16.22 above, have finished.

16.24 The distribution of awards shall not commence unless the results are final and the scores were posted in time and all of the conditions of 16.22 have been satisfied.

## 17.0 SERVICING

17.1 "Servicing" is defined as any repairs or assistance given to a competing vehicle by other than the competing crew of that vehicle.

17.2 Servicing will be permitted along the route of each NARRA event as provided for under each event's supplementary regulations. Servicing anywhere else, on or off the route, is not permitted. Whenever servicing, all vehicles must be placed far enough from the roadway to ensure no blockage to other vehicles. Adequate warning of the presence of activity must be given.

17.3 There shall only be two service vehicles per entered vehicle allowed on any NARRA event. The organizers shall collect a fee from each service crew in the amount of: \$10 for the first service crew of a vehicle, and \$25 additional from the second service crew of a vehicle. For this fee the service crews shall receive all information needed to provide the amount of service allowed under the event's supplementary regulations.

17.4 Each service crew will be allowed a small pit board, not to exceed 4' x 4', and a light no brighter than the average turn signal light, with which to mark their location. At no time will this light be higher than 4 feet off the ground. The use of any other markers, or other lights to mark a service location, will not be allowed.

17.5 All event organizers and their workers and assistants are Judges of Fact and may report violations of these rules, and the supplementary regulations of any event, to the organizers or NARRA.

17.6 All service crew members must register at each event at the place of Registration and Documentation point noted by the event organizers. Each member of the service crew must sign the waiver at that time.

17.7 Competitors are deemed responsible for the actions of their service crews at all times. At no time may open alcoholic beverages be carried in service vehicles.

NOTE: This page was blank in the copy of the rules that was scanned.

- 19.9 Annually, year end awards will be presented to at least the top five drivers and co-drivers.
- 19.10 Annually, there will be a NARRA Rally of the Year Award presented to the event organizer compiling the highest rating on the Competitor Evaluation Reports. These Reports should be filed by all competitors, and the Steward of the Meet, after each event.
- 19.11 There shall also be a NARRA Championship of Makes for all automobile manufacturers comprising accumulated points throughout NARRA's America's Rally Cup. The winner shall be the make compiling the highest total number of points at the year's end. Makes Points shall be awarded exactly as the driver and co-driver points are, except that only the best-placed vehicle of each make, in the overall top 10 positions, may receive points.
- 19.12 For the purpose of scoring NARRA's America's Rally Cup all vehicles shall compete in one class.

#### 20.0 CONDUCT OF COMPETITORS

20.1 Every competitor shall conduct himself in a gentlemanly and sportsmanlike manner at all times during any NARRA event or function, in his dealings with the public, with other competitors, and with the members of the organizing committee.

20.2 The following procedures shall govern:

- a) Charges against a member, competitor, entrant, owner, Club or group of NARRA members, or other persons, of conduct unworthy of a gentleman, or acting in any unsportsmanlike manner, or doing or failing to do anything which may bring discredit to motor sport in general, or NARRA in particular, or against an Officer for misfeasance or malfeasance, shall be in writing and forwarded to the National Office of NARRA with a full statement of the facts and all matters relating thereto.
- b) The Competition Committee shall afford the accused a hearing on the charges, or at its discretion may either appoint a Special Committee, or delegate such authority, who shall forward to the Competition Committee their recommendations. All parties shall act expeditiously in order to determine the matter or question at issue at the earliest possible time.
- c) The National Office shall notify the accused person or persons of the charges against him or them, including all particulars, together with the date, time and location of the hearing.
- d) Notice of the hearing shall be in writing and not less than fourteen (14) days prior, unless the accused waives this time limit.
- e) The hearing shall be conducted in order to give the accused every reasonable opportunity to answer and explain as to the charges. The accused shall be entitled to be represented by counsel, cross examine witnesses, call witnesses and file documents in presentation of his defense to the charges.
- f) After hearing or upon review of the findings and the recommendations of the Special Committee appointed, the Competition Committee shall have the power to:
  - 1) Dismiss the charges.
  - 2) Find the accused guilty as charged.

In the event there is a finding of guilt, the Competition Committee may:

- Reprimand the accused
- Fine the accused an amount not exceeding \$ 500.00, and/or
- Charge the cost of the hearing against the accused, and/or
- Suspend all rights and privileges of the accused for such a period of time as the Committee deems proper.

#### 21.0 FEES

- 21.1 NARRA membership (individual) is \$25 per year. This shall include an Entry Permit good for the entire calendar year. Memberships are available, upon application, from NARRA.
- 21.2 Temporary Entry Permits are available to non-members at \$10 per event, upon application to NARRA.
- 21.3 A NARRA Competition License is \$10 per year and shall be available, upon application, from NARRA.
- 21.4 Corporate (Sustaining) memberships are \$250 per year and are available, upon application, from NARRA.
- 21.5 NARRA's permanent address is: P.O. Box 814, Nyack, N.Y. 10960. All inquiries should be directed to this location.

**APPENDIX 1**

<b>COMPETITION COMMITTEE MEMBERS</b>		<b>GENE HENDERSON</b> Competition Limited Box 337, Pinckney, MI 48169	313 878 9566
<b>JOHN BUFFUM</b> Box 2113 S. Burlington, VT 05401	802 658 4484 o. 802 864 5194 h.	<b>BOB HOURIHAN</b> 18569 Innsbrook Drive Northville, MI 48167	313 261 5790 o. 313 349 8733 h.
<b>TOM GRIMSHAW</b> 3918 Farmville Road Dallas, TX 75234	214 369 6011 o. 214 241 3557 h.	<b>JOHN NAGEL</b> 13020 38th Avenue So. Seattle, WA 98168	206 827 3068 o. 206 243 7017 h.
<b>ERICK HAUGE</b> 3191 Morse Avenue Sacramento, CA 95821	916 482 5790 o. 916 489 2903 h.	<b>IAIN TUGWELL</b> 65 Homewood Avenue Cheektowaga, NY 14227	716 847 3535 o. 716 681 2388 h.

**COMPETITION COMMITTEE DELEGATES**

Northern California Performance Rally Group	<b>RONALD E. BOECK</b> 8969 La Riveria Drive Sacramento, CA 95826	916 363 1457
Puget Sound Sports Car Club	<b>DANIEL J. GOODWIN</b> Alaska Lighting Warehouse 4520 East 7th Anchorage, AK 99501	907 333 0560
Ridgecrest Rally Club	<b>RAY HOCKER</b> 2600 Virginia #17 Santa Monica, CA 90404	213 829 3792
Sports Car Club of Ann Arbor	<b>BRIAN McMAHON</b> 1461 Foley Ypsilanti, MI 48197	313 662 3291 313 485 2610 h.
Valley Rally Association	<b>CHARLES FORTINO</b> Fortino, Plaxton & Moskal 175 Warwick Drive Alma, MI 48801	517 463 2101 o. 517 463 2985 h.
Western New York Pro Rally Committee	<b>WALLY KAMMER</b> 54 S. Cayuga Road Williamsville, NY 14221	716 632 7500 o. 716 632 3264 h.

**1977 ORGANIZERS**

Event	Organizer	Club
OLYMPUS/DAFFODIL	JOHN NAGEL	PUGET SOUND SPORTS CAR CLUB
RIM OF THE WORLD	RAY HOCKER	RIDGECREST RALLY CLUB
20 STAGES	JEAN RIZOR	SPORTS CAR CLUB OF ANN ARBOR
HAPPINESS IS SUNRISE	WALTER KAMMER	WESTERN NEW YORK PRO RALLY COMMITTEE
CHISUM TRAIL		SAAB CLUB OF TEXAS
CATSKILL 300	JOHN BUFFUM	CATSKILL RALLY CLUB
NORTHERN LIGHTS	CHARLES FORTINO	VALLEY RALLY ASSOCIATION
MARQUETTE 1000		GREATER MARQUETTE RALLY CLUB
MENDOCINO FOREST	RON RICHARDSON	NO. CAL. PERFORMANCE RALLY ENTERPRISE

## APPENDIX 2

AS OF: January 1st, 1977

### SEEDED RALLY DRIVERS:

All seeded drivers are listed as follows with the total number of points they have accrued since January 1st, 1976. Since seeding is based on two years, the previous and the present, this list will prove valuable in determining when drivers are eligible to move out of their listed seed group. All of the drivers listed below will remain seeded in the group in which they are presently until:

- a) they qualify for a higher seed group based on the points shown below plus points earned in 1977, or
- b) they fail to requalify by December 31st, 1978.

SEED ONE		
J. Buffum *	170	VT
T. Heinonen	98	CAN
G. Henderson	94	MI
J. Perusse	92	CAN
S. Harvey	86	MI
E. Jones	82	OH
J. Walker	62	MI
B. Hourihan	22	MI
W. Boyce	21	CAN
J. Rodgers	8	WA

SEED TWO		
H. Blok **	82	CA
B. Skowronnek **	79	CAN
L. Paivarinta **	75	CAN
A. Falciewicz **	57	CAN
D. Goodwin **	49	AL
T. Tolles **	47	MI
J. Chalmers **	45	OH
J. Smiskol	35	IL
D. Jankowski	34	MI
R. Black	33	CAN
S. Halle	28	CAN
G. Light	26	MI
R. Donison	20	OR
G. Lansdell	20	CAN
B. Rebney	18	MI
D. Leverton	16	CAN
G. Thomas	11	CAN
G. Neil	6	CAN
B. Garside	3	CAN
R. Brooks	0	IL
J. Demers	0	CAN
G. Keen	0	CA
C. McLaren	0	CAN
D. Sabourin	0	CAN

SEED THREE		
V. Wejer ***	31	CAN
J. Davis ***	28	MI
S. Roberts ***	26	WA
G. Vanier ***	25	CAN
G. Potts ***	23	CA
D. Sedlacek ***	23	CAN
J. Beyetle ***	21	MI
R. Hasanen ***	20	CAN
J. Thompson	18	CAN
R. Swenson	16	NJ
R. Sutcliff	15	CAN
A. Reggazzi	14	CA
L. Morrison	12	CAN
W. Wagner	11	MI
R. Hayslett	10	NM
M. Smith	10	CA
J. Davis	3	WA
P. Stiles	2	CAN
J. Callon	1	CAN
G. Albright	0	MI
G. Beavis	0	CA
P. Grevin	0	CA
M. Munsie	0	CAN
J. Nixon	0	CAN
K. Phillip	0	CAN

\* Already requalified for Seed One until December 31st, 1979.

\*\* Already requalified for Seed Two until December 31st, 1979.

\*\*\* Already requalified for Seed Three until December 31st, 1979.

## APPENDIX 2

The following are the NARRA specifications for roll bars and roll cages. In all cases these are the minimum standards allowable. Improvement upon these standards is encouraged.

### A. Roll-over bars:

#### General considerations

1. The basic purpose of such devices is to protect the driver if the car turns over or is involved in a serious accident. This purpose should always be borne in mind.
2. Whenever bolts and nuts are used, they should be of a sufficient minimum diameter, according to the number used. They should be of the highest possible quality (preferably aircraft). Square head bolts and nuts must not be used.
3. One continuous length of tubing must be used for the main structure with smooth continuous bends and no evidence of crimping or wall failure.
4. All welding must be of the highest possible quality with full penetration (preferably arc welding and in particular heliar). Although good outside appearance of a weld does not necessarily guarantee its quality, poor looking welds are never a sign of good workmanship.
5. The fore-aft bracing must be made to the same specifications as the main hoop. The bracing must be attached as near as possible to the top of the main hoop but not more than six inches below the top and at an included angle of at least 30 degrees.
6. The attention of drivers is drawn to the fact that a safety roll-bar can be efficient only if the driver is firmly maintained in his seat by a safety harness, in the opposite case, the safety roll-bar, instead of protecting the driver, constitutes a dangerous obstacle inside the passenger compartment.
7. An inspection hole of at least 3/16" diameter must be drilled in a non-critical area of the main hoop to facilitate verification of wall thickness.

### B. Closed and Open Cars:

As a general rule the safety cage must be made of one hoop behind the front seats. For all cars the windscreen hoop is optional, although advisable. The general design must comply with drawings 1 and 2, however the diagonal is also optional.

The safety roll-bar or cage must be conceived in such a way as not to obstruct the access to the front seats and not to encroach on the space provided for the driver and the passenger. On the other hand, it is allowed that the elements of the roll-bar or cage encroach on the space of the rear passengers, and pass through the upholstery of the rear seat(s).

The main roll-bar hoop(s) must be placed as near as possible to the roof in order to limit its crushing in the event of a rollover.

### C. Attachment of safety roll-bars on the chassis:

The fixing of the main roll-bar hoop(s) must be realized with at least 3 bolts and nuts — diameter: at least 8mm — with hexagonal head. The attachment plate integrated to the roll-bar struts shall have the same thickness as the wall of the tube on which it is fixed. The total surface of this plate must be of 35 sq cm at least. If the attachment plate is not directly over a frame member, a plate of equal dimensions must be used on the bottom side of the floor pan. The fore-aft bracing must be mounted in a similar method to the main hoop, except that the backing plate need not be used.

### D. Specifications of the tubes utilized:

	Exterior Diameter X Thickness			
	φ 38 X 2.6	φ 48.3 X 2.6	φ 44.5 X 2.6	φ 57 X 2.9
Cold drawn seamless carbon steel E — 30 daN				
Alloy steel type 25 CD4 SAE 4125 etc. E — 50 daN	φ 33.7 X 2.3	φ 42.4 X 2.6	φ 38 X 2.6	φ 48.3 X 2.6

These dimension figures represent in mm the minimum figures admissible. They correspond to standardized tubes (International Standards ISO R64).

- E. For closed or open cars to avoid an important deformation of the coachwork and consequently to protect more efficiently the driver in case of a lateral impact, it is permissible to complete the efficiency of the safety roll-bar, thanks to the mounting of a longitudinal support at the door level.

The pipe constituting this support should be integrated in the safety framework, the front and rear hoops of which it connects, and to which it is fitted, either by welding or with a removable coupling; it cannot be fixed on the coachwork itself.

Its diameter, its thickness and its material correspond to the specifications of the hereunder table, its angle with the horizontal should not exceed 5 degrees.

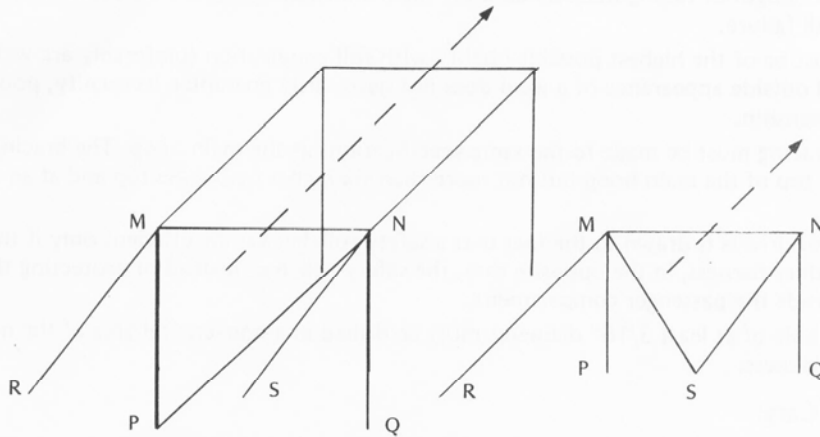
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## APPENDIX 2

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E. continued . . .

It should divide the height of the opening of the door in the relation 2:1, i.e., it is fitted on the framework at a height equal to  $\frac{1}{3}$  of the total height of the door above the door sill. This position does not create any problems when going into or leaving cars taking part in competitions, and the relation 2:1 is acceptable for almost all types of cars.



drawing No. 1

drawing No. 2

Fitting of a diagonal strut is advised

The following are examples of the control boards to be used on all NARA events:

1 -



2 -



3 -

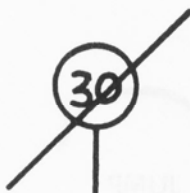




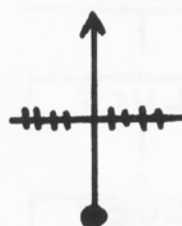
EXAMPLES OF ROAD BOOK SYMBOLS



SPEED LIMIT



END OF SPEED LIMIT



RAILWAY CROSSING



BRIDGE OR CULVERT



WATER OVER ROAD



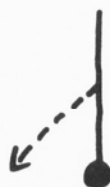
BLINKER



TRAFFIC LIGHT



BROKEN BRIDGE OR CULVERT



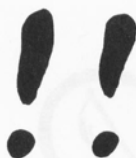
TURN LEFT ONTO AN INFERIOR ROAD



YIELD RIGHT OF WAY SIGN



CARE

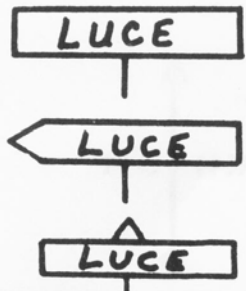


DANGER



EXTREME DANGER

SYMBOLS OF ROAD SIGNS



NOTED ROAD SIGNS



JUMP

F.H. 16

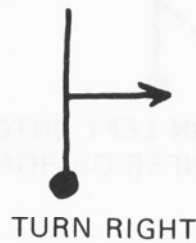
FEDERAL FOREST HIGHWAY

Co 510  
COUNTY ROAD

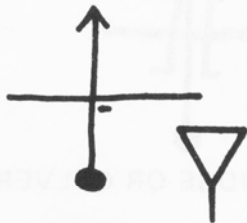
U.S. 41  
FEDERAL HIGHWAY

M 69  
STATE HIGHWAY

# 4454  
FEDERAL FOREST  
TRAIL



TURN RIGHT



STRAIGHT ON  
AT "YIELD"



TIME CONTROL



SPECIAL STAGE  
START



SPECIAL STAGE  
FINISH

.23

36.73



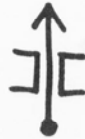
.88

37.61



1.28

38.89



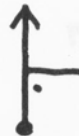
.36

39.25



1.33

40.58



REPUBLIC-CASEY LAKE

1.17

41.75



BRYAN CREEK RD.

SERVICE AREA TO RIGHT

20...

.12

41.87



S.S. #5

ERICKSON LAKE

.76

42.63



.61

43.24



RALPH 23

.75

43.99



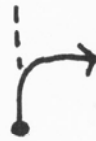
2.33

46.32



.78

47.10



1.17

48.27



RALPH 17

.40

48.67



1.01

49.68



(12)

.87

50.55



.08

50.63



.46

51.09



WATER OVER ROAD