

**NORTHEAST CORVAIR COUNCIL (NECC)
CORVAIR DRAG RACE EVENT
CONCEPTS, CAR CLASSES, & TECH INSPECTION GUIDE**

This document is intended for people who want to go drag racing with NECC. It describes the manner in which the event will be run, the car classification system, and tech inspection rules. By necessity, the drag racing car classes and tech inspection rules are somewhat different than those used by NECC for time trials, so please read them.

<u>Table of Contents</u>	<u>Page</u>
CONCEPT OF OPERATIONS	2
Classes	2
Sessions.....	2
Technical Inspection.....	2
Drivers Meeting.....	2
Dial-In Practice Session.....	2
Bracket Racing Session	2
Head to Head Session	3
Challenge Session.....	3
DRAG RACE CLASS STRUCTURE	4
Street Stock Classes (SS).....	4
Improved Stock Classes (LS).....	5
Street Modified Class (SM)	6
Competition Class (CC).....	7
V-Vair (VV).....	7
Pro-Vair (PV).....	7
Combining Classes / Bumping.....	7
Combining of Classes & Subclasses	8
Combining of Stock Subclasses	8
Combining of V-Vair and Pro-Vair.....	8
TECHNICAL INSPECTION REQUIREMENTS.....	9
General Condition of Car.....	9
Seat Belts	10
Roll Bars	10
Helmets	10
Brakes and Controls.....	10
Wheels and Tires	11
Suspension	11
Fuels and Fuel Additives	11
Fluid Leaks.....	11
Other	11

NECC DRAG EVENT CONCEPT OF OPERATIONS

1. The NECC will conduct an all Corvair Drag Race Event at Mountain Park Dragway in Lexington, Kentucky on June 14, 2004. This document outlines the concept to be used for this event.
2. **Classes.** The class structure for the event will consist of high and low horsepower sub- levels of Street Stock and Improved Stock. A single power level of class will be used for Street Modified and also for Competition cars. Vehicles normally classified, as Specialty will be placed in one of two sub-classes based on type and amount of participation in each class. A full explanation of these classes is attached.
3. **Sessions.** The event will be divided into three sessions. These sessions will be a Practice Session, a Bracket Racing Session and a Head to Head Session. Each session is discussed in detail in the following paragraphs.
4. **Technical Inspection.** Technical Inspection will be conducted at the convention host hotel on Sunday afternoon beginning at 1PM to 4 PM. Inspection will also be conducted at the track from 7:45 to 8:30 AM. All vehicles participating in the event must pass technical inspection. Details of the technical inspection requirements are attached.
5. **Drivers Meeting.** A mandatory drivers meeting and familiarization session will be held on Sunday at a time and place to be announced.
6. **Dial-In Practice Session.** The practice session will begin at 9AM. Vehicles in pairs on a first come, first served basis will run to establish a 'dial in' time. Elapsed times will be proved to each driver after each run. Drivers will select an elapsed time they consider appropriate. Drivers are responsible for informing NECC officials of their selected 'dial in' time at the close of the Practice Session. Drivers will be allowed to make as many practice runs as time permits. At the conclusion of the dial-in session, drivers will display there dial-in time on side and rear window glass, clearly visible to event scorers. This is normally done with white shoe polish.
7. **Bracket Racing Session.** Cars will be assigned a starting spot on a single elimination tree to be posted at a convenient location. Assignment will be determined by 'dial in' time with slowest cars running first. The anticipated elapsed times for each vehicle will be compared, with the slower car receiving a head start equal to the difference of the two. Two staging lights followed by three amber lights consecutively five-tenths of a second apart, followed five-tenths later by a green light starting tree will be used. The car, which crosses the finish line first wins, and proceeds onto the next round. The loser is eliminated.

Should a driver go quicker than his/her predetermined "dial-in" it is a "break-out," and grounds for disqualification. In the case of both vehicles making their runs under their dial-ins, the win goes to the driver who breaks out the least. Another form of

disqualification is a foul start (or "red light"). This happens when the driver reacts to the starting tree too quickly and drives his car away from the starting line before the green "go" signal. When dual infractions occur, for example, a red light and then a break out, the red light takes precedent over the breakout.

Should a car cross the centerline of the drag strip it is automatically disqualified and the opponent proceeds to the next round regardless of red light or break out.

If a class has an odd number of entries, a random drawing will determine what car will make a solo run. If on the solo run a break out, red light or the car crosses the lane markers, that car is eliminated. Trophies will be awarded for sub-class, class and overall winners.

8. Head-to-Head Session. Drivers have the option to run the Head-to-Head session in addition to their participation in the Bracket Racing Session. Drivers must declare their intention to run in this session prior to the close of the Practice Session.

In this session participants will be grouped according to their bracket (index) times regardless of what class they were in, and will be allowed to compete with a non-handicapped start. The number of indexes, the time difference between index "classes" and the amount of cars in each index will be determined from the amount and elapsed times of entrants. These index times need not be the same as used in the Bracket Racing session and it is encouraged to use "honest" times.

In this session, two staging lights followed by three amber lights consecutively five-tenths of a second apart, followed five-tenths later by a green light starting tree will be used. The first car to finish wins. The rules for red light, crossing the lanes and breaking out if the index will apply, however a 0.200 second breakout will be allowed. Trophies will be awarded for winners of each index.

9. Challenge Session. Time permitting a Challenge Session will be held. Individual drivers are responsible for arranging for an opponent. Trophies will not be awarded for this session.

NECC DRAG EVENT CLASS STRUCTURE

Street Stock Classes (SS)

These classes are designed for stock, unmodified cars and Forward Control (FC) Corvairs and for cars or FC's that have been updated for minor increased performance, reliability and comfort. Street Stock vehicles must adhere to the specification given in this section. The following subclasses will be used:

Sub-Class SS/LM: 1960-1969 Low Performance (80-110 hp) (Manual Transmission)

Sub-Class SS/LA: 1960-1969 Low Performance (80-110 hp) (Automatic Transmission)

Sub-Class SS/HM: 1962-1969 High Performance (140 - 180 hp) (Manual Transmission)

Sub-Class SS/HA: 1962-1969 High Performance (140 - 180 hp) (Automatic Transmission)

No unauthorized modifications are permitted in order to accommodate authorized modifications (e.g., non-stock hood scoops or holes necessary for carburetor clearance). Cars in Street Stock must run as delivered from the factory except as follows:

- Any stock dimension (for example a 5.5" x 13" for cars) wheel may be used. Backspacing may be decreased by up to one inch (moving the wheel further outward).
- Any DOT tire with an aspect ratio of 70 and above, with a wear rating of 180 and above. Tires must fit inside the wheel well without modification.
- No disk brake systems are allowed.
- Chassis changes to improve safety and handling may be made provided these changes do not exceed factory optional equipment specifications, dimensions and attachment points. Camber compensators are permitted on swing axle vehicles.
- Any replacement shock absorber of stock or factory optional type may be fitted provided that it attaches to the standard mounting points without alteration. Adjustable gas shocks and heavy-duty standard shocks are permitted.
- Updating and backdating of bolt-on non-drive train Corvair production components without modification is permitted. This allows, for example, entire late front suspensions to be used in early Corvairs.
- Yenko Stingers or Fitch Sprints must meet stock Corvair mechanical specifications to compete in Street Stock class.
- Any front seats from any production year Corvair may be used.

- Any legitimate safety improvement may be made. For example, a roll bar may be substituted for a rear seat in all cars.
- Stock carburetors in original location are required.
- Any air cleaner, drawing air from within the engine compartment, is permitted. Air cleaners may be removed, but air must be drawn from the engine compartment.
- Insignificant reliability enhancing changes that do not noticeably change the appearance or function of the vehicle are allowed. Examples are but not limited to: slightly smaller steering wheels (within 2 in. of stock diameter), dress-up valve covers and oil pans, electric fuel pumps, alternators, lower shroud removal, billet aluminum pulleys, braided fuel lines, etc.
- Solid-state points replacements are permitted (i.e. Ignitor). Ignition system is limited to a single coil.
- Electronic knock control and water injection systems are allowed in all cars.
- Lowering compression to use lower octane gas is allowed. Intentionally raising compression is NOT allowed (i.e. head or piston work), but incidental compression changes due to mild cylinder overbore are permitted. Must use stock Corvair camshafts or equivalent replacement.

Improved Stock Classes (IS)

These classes are designed for cars or FC's that have been updated for increased performance while retaining a street legal status. Improved Stock vehicles must adhere to the specification given in this section. The following classes will be used:

- Sub-Class IS/LM: 1960-1969 Low Performance (80-110 hp) (Manual Transmission)
- Sub-Class IS/LA: 1960-1969 Low Performance (80-110 hp) (Automatic Transmission)
- Sub-Class IS/HM: 1960-1969 High Performance (140 – 180 hp) (Manual Transmission)
- Sub-Class IS/HA: 1960-1969 High Performance (140 – 180 hp) (Automatic Transmission)

All modifications permitted in Street Stock are permitted in Improved Stock. Additionally, the following modifications may be made.

- Air cleaner(s) are unrestricted, may be removed and may use cold-air intakes.

- Headers allowed. Mufflers may be removed for competition. Complete engines, transmissions, and differentials may be updated and backdated using stock parts. The car must run in the class in which the engine type belongs.
- Any cooling system, fan and pulleys may be used.
- Chassis changes may be made as in stock, but do not have to comply with factory specifications. Changes may include springs, shocks, steering and brakes. Stock rubber suspension bushings may be replaced with non-metallic suspension bushings, but spherical or solid metal bushings are not allowed. Note: Transmission and engine mounts are NOT considered part of the suspension, and must remain stock.
- Hubs may be re-drilled to accommodate non-stock wheels. Any street legal wheel / tire combination is allowed.
- Stock springs may be cut and lowering is allowed, but car must be street legal. No items except sway bars below wheel rim.
- Wheel wells may be modified internally but not externally, no fender flares allowed.
- Interior changes: Front seats may be replaced by other seats that are fully upholstered (including aftermarket racing seats). Must retain a finished interior.
- A Crown lowering bracket (including relocation modification) is permitted.
- A maximum of four (4) venturies are permitted.
- Any type of shock absorber is permitted (but not coil-overs).
- Any chassis-mounted brake components are permitted, including vacuum-assist power brakes. Any lining is permitted on shoes and pads. Disk brakes are allowed.

Street Modified Class (SM)

This class is intended for weekend racers, and streetcars with all-out performance improvements. Cars must be street legal. NECC reserves the right to judge this. There will be only one Street Modified Class that will include all 1960 - 1969 Corvair cars.

All modifications are permitted provided the car remains street legal. All cars must:

- Retain a glass windshield, and a minimum of 1/8" side and rear windows (of any transparent material).

- Retain all stock lighting, in working order, or a functional equivalent (i.e. Solar Cavalier).
- Not use metal (spherical) bushings anywhere but in the rear strut rods, front and rear anti-sway bars, and coil-over shocks (coil-over shocks are otherwise permitted).
- Retain a functional, somewhat finished interior. Must have working doors.
- Retain all original metal, except for deck and trunk lids.
- Be currently registered for street use and be street legal in the configuration run.

Competition Class (CC)

This class is designed for race prepared cars. There will be only one class that will include all 1960 - 1969 Corvair cars.

All Competition Class cars must meet the following minimum requirements:

- Must retain a Corvair engine in the stock location. Modifications to this engine are unlimited, but the two case halves and the crankshaft must be original GM castings.
- Must have a front windshield
- Must use wheels of a maximum 12" width.

V-VAIR (VV)

This class is designed for all Corvairs with alternate engines (V-8, V-6, etc.) regardless of engine placement. Vehicles in VV shall conform to all safety requirements as stated above. The only non-safety restriction is that the car must physically resemble a Corvair from the outside.

PRO-VAIR (PV)

This class is designed for alternate or radically altered (shortened, etc.) body styles with Corvair engines. Vehicles in PV shall conform to all safety stated above. The car's engine must use original GM castings for the two halves of its crankcase, and crankshaft.

Combining Classes/Bumping

Depending on the balance of entries, the following guidelines may be adopted at the discretion of the NECC:

A sub-class should contain a minimum of three (2) cars to be considered valid and eligible for trophies. In the event that a class does not contain the required number of cars, the following class bumping order has been specified:

Combining of Classes and Subclasses

Cars may only be bumped UP to the next higher class. Cars may not be bumped up once they are in a class with the required number of participants.

Combining of Stock Subclasses

Subclasses must be combined before any other bumping is performed. The bumping order for this is as follows:

First, engine types are combined. (for example XX/LA and XX/LM becomes one subclass – XX/Low performance. XX/HA and XX/HM becomes the other – XX/High performance).

Second, all cars are grouped together in a single class. As the rules stand, this can only be done in Street Stock, and Improved Stock classes.

Combining of V-Vair and Pro-Vair

Depending upon the type and number of entrants these classes will become subclasses of either Street Modified or Competition.

NECC DRAG EVENT TECHNICAL INSPECTION REQUIREMENTS

A completed Technical Inspection Form, including vehicle classification, must be presented to the technical inspector before the inspection can begin. A Technical Inspection Form for your vehicle will be mailed along with the registration confirmation letter, and/or will be available at the completion of registration.

Technical inspection of a vehicle is only for the benefit of the NECC and does not protect the entrant and/or car owner in any way. The NECC shall not incur any liability to any entrant, person, participant, visitor or organization from the act of inspecting a vehicle. The NECC does not represent any vehicle as safe or free from defect or unsafe condition. Entrants and/or car owners are better informed as to the status and condition of the vehicle.

All vehicles shall successfully pass a full technical inspection covering all of the requirements outlined in this document prior to being permitted on the course. If a vehicle fails to pass, the vehicle may be repaired and re-inspected. If a vehicle cannot pass, 50% of entry fees will be refunded.

Unless otherwise stated, all requirements apply to all vehicles in all classes. Classification is independent of technical inspection. Vehicle modifications permitted by a particular class must still be verified safe by the technical inspector. The Director of Technical Inspection, or his designated representative(s), has final authority in all matters pertaining to the implementation and interpretation of these rules. Appeals may be made to the senior NECC official present at the event whose decision will be final.

The NECC reserves the right to inspect any and all items deemed safety related.

Any car deemed unsafe by the technical committee or in questionable condition will be asked to modify the condition or will be refused participation from this event.

The following items will be checked (not an all-inclusive list):

General Condition of Car

Car must be in good mechanical condition. All vehicles will be required to have a minimum one functional taillight light and at least one rear view mirror (if only one is used, it must be interior type).

All loose articles in the interior and trunk, including but not limited to cameras, tools, coolers, floor mats, etc., must be removed. Easily removed accessories such as tape players or CB radios must be removed. Spare tire, if properly mounted, may remain in car. Otherwise, spare tires and jacks must be removed. Battery must be properly secured. The battery must be securely held in place with all caps in place. If placed in

the cockpit or trunk, it must be an acid resistant container. No ballast of any kind is allowed.

Seat Belts

All cars must have metal-to-metal buckled seat belts in good condition, with no cuts or abrasions, and with all hardware secure and tight. There can be no signs of fraying, wear, excessive dulling, or aging. Old belts must be replaced. A racing type harness is recommended for all classes. All cars vehicles running 11.99 seconds or quicker must have a minimum of a 3-point harness with 2 inch webbing (stock shoulder belts are acceptable).

Seat belt designs must be safe and must not cause additional injury to the driver. For example, shoulder and racing harnesses may not be mounted directly to the floor below the driver's seat with no other secure points of contact. The shoulder harness cannot be secured more than 1" below the driver's shoulder.

Roll Bars

Roll bars are required for all convertibles and open top cars running under 14 seconds in the quarter mile. Roll bars are required in all hard top (coupes, four door and forward control) vehicles running 11.99 seconds or quicker. It is anticipated that few if any Street Stock, Improved Stock or Street Modified Corvairs will be capable of this level of performance.

The minimum configuration for cars running under 14 seconds is a 3 point braced design.

Helmets

Drivers are encouraged to wear safety at all times when on the track. Drivers of vehicles running 11.99 seconds or quicker must wear helmets with a 1995 or higher Snell Foundation sticker. Both Snell M and SA helmets are acceptable.

Brakes and Controls

The brake pedal of all vehicles must be firm and be able to maintain pressure when held. No visible signs of leakage at master cylinder or wheel cylinders will be allowed. Brakes must operate on all four wheels and must be actuated by a single pedal. The "hard-harder" test is required, and may be performed by the vehicle owner or by technical inspection personnel. Only a rear braking system is required on Competition, V-Vair, and Pro-Vair vehicles.

Throttle linkage and/or cables shall be in a safely operating condition, and return spring tension must be adequate. Additional throttle return springs are recommended.

Wheels and Tires

Snap ring hubcaps, wheel covers, and trim rings must be removed. All lug nuts must be in place, and be a proper match to the rim. Tires must be in good condition with no defects and good tread. Non-racing tires must have a minimum of 1/16" tread. All tires must be free from cuts, bulges, visible threads, etc.

Suspension

Suspension will be checked for ball joint and bearing wear. The vehicle may be jacked up as necessary for this inspection. All lug nuts/studs must be in place.

All vehicles must be free from excessive bounce when rocked. The front and rear suspension shall be free of excessive play in the suspension joints, bushings, linkages, bearings, and steering gear. Except for vehicles in Competition Class and Specialty Class, no part of the chassis (except sway bars) may be lower than the lowest part of the wheel rims.

Fuels and Fuel Additives

Fuel shall be gasoline or commercially available gasohol. Fuel additives such as "Vortex" or "Moroso" are permitted.

Fluid Leaks

No excessive fluid leaks will be allowed in any participating vehicle. All participants must take steps to ensure the integrity and reliability of their car's oiling and cooling systems. If the cleanup of a spill caused by a car delays track operation, that car and its entrants will be disqualified from further participation on that day and lap times will be disallowed. No refunds will be given under such circumstances.

Other

All cars must have a functional and complete firewall between the engine and cockpit. Window netting is recommended on the driver's side of all cars. Cars not having window netting must have a functional driver's side window. This window can be either glass or Lexan (shatterproof) and must be in place for all runs. These windows must be securely in place using either stock window mechanisms or an other type of mounting system. Open vehicles that are in the Pro-Vair class are exempt form this requirement.