

# THE CONCEPT OF ROADCRAFT VS THE CONCEPT OF CARCRAFT IN DRIVER TRAINING

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## INTRODUCTION:

The term “Advanced Driving” has been propagated by people with various backgrounds in driver training. The result is that the terms such as “Advanced” and “Defensive” means different things to different people.

The two main ‘schools-of-thought’ were termed “Roadcraft” and “Carcraft” by Perry, (1979) Studies have shown a disparity between the crash records of graduates of the two types of courses, e.g. Perry, 1979 ; Hoinville, Berthound and Mackie, 1972.

The following is a comparative of the key features of “Roadcraft” and “Carcraft”.

### ROADCRAFT

#### General

is a concept of planning, based on observation, insight and anticipation.

#### Training environment

Conducted on-road mainly with some off-road exercises to develop reversing or manoeuvring skills; and to enhance such skills as steering.

#### Philosophy

Seeks to train the mind to recognise potential hazards and plan a course of action which maintains maximum safety control through each hazard.

#### Safety aims

Places safety emphasis on the mental attitude of the driver. Drivers develop habits (‘driving protocols’, Hirsch, 1997) which produce appropriate reactions in an emergency. (See “Class-Driving Habits by Trevor Sobey BEd (ALD), dipProfCouns)

#### Emphasis

Emphasis on car sympathy and low driver fatigue.

Trains the driver to be relaxed, balanced and smooth in the handling of the controls.

### CARCRAFT

#### General

is a technique of driving to optimize vehicle performance through understanding the vehicle’s handling characteristics and the skills required to obtain this.

#### Training environment

Conducted off-road because most of the training exercises would be illegal in a public place.

#### Philosophy

Seeks to develop a repertoire of back up manoeuvres of escape routes.

#### Safety aims

Places safety emphasis on the handling characteristics of the vehicle and skill of the driver.

#### Emphasis

Emphasis on understanding the optimum performance of the vehicle.

Trains the driver to be fast and accurate in the handling of the controls.

## ROADCRAFT

### Operational Basis

Usually based on the system taught at the Hendon Police College, London. Each "hazard" (loosely defined as any point of potential conflict) is approached with a set order in the driver's mental activity and operation of the vehicle's controls.

Commence with "Plan" where the driver forms a mental plan of:

1. The intended path of the vehicle.
2. Estimates the best approach speed.
3. Marks an imaginary point on the road's surface where the gear change is to be made.
4. Calculates the zones of visibility and invisibility.

### Brakes and Gears

Teaches reducing speed on the brakes, then changing the gears separately.

### Braking

The left foot is used to brace the body weight while the right foot "Brushes" then squeezes the brake until correct deceleration is reached; or until there is tyre squeal.

### Steering

Often advocates "Pull-Push" steering for the following reasons:

1. Better deportment.
2. Positive wheel grip.
3. Smooth vehicle response.
4. Steering efficiency.

### Skid Control

Often covers theoretical and practical skid control with an emphasis on prevention.

### Cornering

The correct line through a bend is to achieve an increase in the field of view and a decrease in the centrifugal effect on the vehicle.

#### Basic line:

Approach wide to the 'entrance' of the bend, tight at the 'apex' of the bend, wide at the 'exit' of the bend.

#### Variations:

**Early line:** (e.g. for a slight bend with good visibility) The steering is turned prior to the commencement of the bend.

**Centre Line:** (e.g. for a bend with good visibility) The steering is turned at the same time as the bend commences.

**Late Line:** (e.g. for a bend with restricted visibility) the steering is commenced late, the 'apex' is past the middle of the bend.

**Five-Point-Bend:** (e.g. for a long sweeping "U" bend with poor visibility). Incorporating 'entrance' - 'apex' - 'pocket' - 'apex' - 'exit'.

## CARCRAFT

### Operational Basis

No overall concept of hazard. Each 'hazard' is approached according to its type e.g. for a left turn, approach from the right side of the lane.

### Brakes and Gears

Teaches reducing speed on brakes and changing gears simultaneously using 'heel-and-toe'.

### Braking

Often refers to "Threshold" braking (means the same thing).

### Steering

Often advocates "Cross-arm" or "1/4 to 3 and glue" and / or "Hand-over-hand" for the following reasons:

1. More wheel speed for the first half-turn in either direction.
2. More natural reflex action.

### Skid Control

Gives greater emphasis to practical skid control.

### Cornering

Sometimes uses a 'circuit' line which is an early, tight line. The driver leaves the wide approach early and hugs the apex for a greater distance. The purpose is to block competitors. Observation on a racing track circuit is not restricted by obstacles; some who have participated in 'Carcraft' courses on a racing circuit seem to use this line on the public road.

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