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ROGER DUHAMEL, F.R.S.C.  
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY  
OTTAWA, 1962

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CANADIAN ARMY

MANUAL OF  
VEHICLE AND AIRCRAFT  
PAINTING AND MARKINGS

(SHORT TITLE: VEHICLE AND AIRCRAFT  
MARKINGS)

PREPARED UNDER THE DIRECTION OF THE  
CHIEF OF THE GENERAL STAFF BY THE  
DIRECTORATE OF STAFF DUTIES

ARMY HEADQUARTERS  
OTTAWA

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RECORD OF AMENDMENTS

Amendment Number	Reference	Dated	Initials and Date of Insertion
1		Nov 63	g - 23 May 63
2		Jun 64	g - 25 Jan 66

(ii)

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1962

AMENDMENT NO 1—MAR 63

INK AMENDMENTS

PART 1—VEHICLES

- ✓ 1. TABLE 1—MARKINGS TO BE CARRIED ON VEHICLES  
Add at foot of table:

Note 1—Standard commercial pattern Rambler station wagons will be marked in the same manner as Staff Cars.

- ✓ 2. Page 11, Section 5—CANADIAN ARMY REGISTRATION NUMBER

Para 20a (5). Add the following sentence:

"For trucks 3/4 ton 4×4 with left door mounted spare tire, the number will be located immediately above the door on the side of the cab roof panel."

PART 2—AIRCRAFT

3. Page 34, TABLE 1

In column "Identification Marking Drawing" opposite "Helicopter, Observation, CH 112 (Hiller UH-12E), against the following items in the "Role" column, change drawing numbers as shown:

Training    delete Nil, substitute 51616  
Liaison    delete Nil, substitute 51616  
Operational delete 5616, substitute 51616

REPLACEMENT PAGES

4. In Part 1—VEHICLES, remove page 15 and 16 and replace with new pages 15, 16 and 16A attached.

ROGER DUHAMEL, F.R.S.C  
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OTTAWA, 1963

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AMENDMENT NO. 2 DATED JUNE 1964

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- ✓ 1. *Delete* — page 30.
- ✓ 2. *Remove* — pages 31 to 34 inclusive.
- ✓ 3. *Insert* — replacement pages 31 to 36 attached.

ROGER DUHAMEL, M.S.R.C.  
Queen's Printer and Controller of Stationery  
Ottawa, 1964

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## INTRODUCTION

This manual gives instructions for the placing of markings on Canadian Army vehicles and aircraft. It is divided into two parts as follows:

PART I — Vehicles

PART II — Aircraft

This manual supersedes the "Canadian Army Manual of Vehicle Markings".



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## PART 1—VEHICLES

### SECTION 1—GENERAL INSTRUCTIONS

#### 1. Authority

- a. This manual is the sole authority for the painting and placing of markings on Canadian Army vehicles. Additional or different painting or markings will not be adopted without prior approval of AHQ;
- b. The markings to be placed on vehicles are listed in Table 1. Descriptions, locations and other details are contained in the ensuing sections.

#### 2. Responsibility

It is primarily a unit responsibility to ensure that all vehicles issued for unit use are marked with the prescribed signs.

#### 3. Uniformity

For the purpose of achieving uniformity within commands and formations, commanders may issue supplementary instructions in cases where design, dimensions, colour or location of markings is discretionary.

#### 4. Security

In the field, vehicle markings may, at the discretion of the field commander or his superior authority, be covered or removed when the interests of security so demand.

#### 5. Definition, Right and Left

In this manual the "right" and "left" corresponds to the right and left hands of the driver when seated behind the steering wheel.

#### 6. Painting Instructions

- a. Canadian Army vehicles will be painted in accordance with EME Manual General T100;

- b. When considered necessary in the field or desirable during exercises and manoeuvres, general officers commanding may authorize the painting of vehicles with removable camouflage paint.

#### 7. Marking Materials

- a. The required paints for those signs to be painted under unit arrangements are available from the RCOC;  
 b. A colour schedule is contained in Annex A.

#### LEGEND:

- \* Permanent markings.
- † Temporary markings.
- ‡ Discretionary markings.

#### MARKINGS TO BE CA

Serial	Vehicle Marking (a)	Staff Cars	Motorcycles	Ambulances, TCVs of MACs and Special Purpose Medical and Dental Vehicles (d)	Other Personnel Carrier Vehicles (e)
		(b)	(c)	(d)	(e)
1	Formation		*	*	
2	Unit		*	*	
3	Licence Plate	*	*	*	
4	CAR Number	*	*	*	
5	Bridge Classification			*	
6	National Distinguishing Symbol	*	*	*	
7	Geneva Red Cross			*	
8	Provost				
9	Tire Pressure	*	*	*	
10	Left/Right Warning	*		*	
11	General Officers'	†			
12	Priority	†	†	†	
13	Danger				
14	Movement Serial			†	
15	Air/Ground Recognition				
16	Tactical				
17	Centre of Gravity			‡	



## VEHICLE MARKINGS

## LEGEND:

- Permanent markings.
- † Temporary markings.
- ‡ Discretionary markings.

TABLE 1

## MARKINGS TO BE CARRIED ON VEHICLES

Serial	Vehicle Marking (a)	Staff Cars	Motorcycles	Ambulances, TCVs of MACs and Special Purpose Medical and Dental Vehicles (d)	Other Personnel- Carrying Vehicles (e)	Load-Carrying and Special Purpose Vehicles and Motorized Engineer Equipments (f)	Armoured Vehicles (g)	Load-Carrying and Special Purpose Trailers and Towed Engineer Equipments (h)	Towed Artillery Equipments (i)	Remarks (k)
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
1	Formation		•	•	•	•	•	•		
2	Unit		•	•	•	•	•	•		
3	Licence Plate	•	•	•	•	•	*(wheeled vehicles)	•		When operated on public highways
4	CAR Number	•	•	•	•	•	•	•		
5	Bridge Classification			•	•	•	•	•	•	
6	National Distinguishing Symbol	•	•	•	•	•	•	•		Within NATO
7	Geneva Red Cross			•						
8	Provost				•					C Pro C only
9	Tire Pressure	•	•	•	•	•	*(wheeled vehicles)	•	•	
10	Left/Right Warning	•		•	•	•				
11	General Officers'	†			†					
12	Priority	†	†	†	†	†				
13	Danger					†		†		
14	Movement Serial			†	†	†	†			
15	Air/Ground Recognition				‡	‡	‡			
16	Tactical				‡	‡	‡	‡		
17	Centre of Gravity			‡	‡	‡	‡	‡		

*note 1 - Standard commercial pattern Rambler station wagons will be marked in the same manner as Staff Cars. AH 1/63*

## SECTION 2—FORMATION SIGNS

### 8. Description

a. The approved designs are described hereunder:

- (1) 1st Canadian Infantry Division. A red rectangle with a gold maple leaf superimposed.
- (2) Western Command. A green shield with a white ram's head with grey horns, superimposed below "WESTERN COMMAND" in white letters.
- (3) Central Command. A red shield with a Martello tower superimposed below "CENTRAL COMMAND" in white letters. The Martello tower is white with bricks outlined in black and windows showing red.
- (4) Quebec Command. A light blue shield with a white *fleur de lis* superimposed below "QUEBEC" in white letters.
- (5) Eastern Command. A green shield with three white wavy bars below "EASTERN COMMAND" in white letters.
- (6) National Defence Headquarters. A red circle with "NDHQ" in white letters superimposed.
- (7) Army Headquarters. A red circle with "AHQ" in white letters superimposed.
- (8) Canadian Base Units, Europe. A blue diamond with a horizontal red bar.

### 9. Sizes

a. Approved sizes are:

#### (1) Rectangles and Diamonds:

- Large — 9" wide, 6½" high.  
Small — 7" wide, 5½" high.

#### (2) Shields:

- Large — 6½" wide, 9" high.  
Small — 5½" wide, 7" high.



(3) Circles:

- Large — 8" diameter.
- Small — 6" diameter.

- b. The small size will be used only where the available surface is too small to accommodate the large size.

10. Location

- a. The formation sign will not be placed on staff cars.
- b. On motorcycles, the sign will be placed in the centre of the right side of the fuel tank only.
- c. On trailers and towed equipments, the sign will be placed on the rear only, in line with the unit sign where possible, on a prominent vertical surface as near to the extreme right of the vehicle as possible.
- d. On all other vehicles, the sign will be placed, in line with the unit sign where possible, on the rear, on a prominent vertical surface as near to the extreme right as possible, and on the front, in one of the positions shown in order of preference below, so as to be visible from a ground-level position directly behind and in front of the vehicle respectively:
  - (1) on the front surface of the right front fender; or
  - (2) on a vertical or near vertical surface as near as possible to the extreme right front of the vehicle; or
  - (3) on a plate attached to the right front of the vehicle.

11. Application

The formation sign to be carried by units is specified in Table 2.

12. Provision

Transfers of formation signs are provided by the RCOC. These transfers require a protective coating of varnish or lacquer to ensure maximum life.

TABLE 2

FORMATION SIGNS TO BE CARRIED BY UNITS

Serial	Unit (a)	CDN Inf Div (b)	Appro- priate Command Sign (c)	NDHQ (d)	AHQ (e)	CBUE (f)	NO Fmn Sign (g)
1	Units of 1 CDN Inf Div; other regular field units in Canada less MSF units and 1 GL Gp.	*					
2	Regular static units in Canada less Serials 3 and 4; MSF Units, 1 GL Gp and Militia units having vehicles on permanent charge.		*				
3	9 Tpt Coy, RCASC NDHQ Security Guard			*			
4	AHQ units less Serial 3				*		
5	Canadian Base Units, Europe					*	
6	Units outside Canada not included in preceding Serials and not covered by separate instructions.						*

SECTION 3—UNIT SIGNS

13. Description

a. Regular Field Units:

- (1) A serial number, as allotted by the field commander concerned, in white, superimposed on a coloured rectangle, as specified in Appendix F, Canadian Edition, "Staff Duties in the Field", or
- (2) where a serial number is not allotted, a coloured rectangle with the abbreviated unit title 1½" high on a 2" high white bar above, as specified in Table 3.

- b. Regular Static Units. A coloured rectangle with the abbreviated unit title 1½" high on a 2" high white bar above, or a coloured circle with inscription, as specified in Table 3.



- c. *Militia Units.* For vehicles on permanent charge, a coloured rectangle with the abbreviated unit title 1½" high on a 2" high white bar above, as specified in Table 3.

14. **Size**

Where practicable, unit signs will be 9½" wide by 8½" high or, for circular signs, 8" in diameter. Otherwise signs will be 7" wide by 5" high or, for circular signs, 6" in diameter.

15. **Location**

- a. The unit sign will not be placed on staff cars.
- b. On motorcycles, the sign will be placed on the left front side of the fuel tank only.
- c. On trailers and towed engineer equipments, the sign will be placed on the rear only, in line with the formation sign where possible, on a prominent vertical surface as near to the extreme left of the vehicle as possible.
- d. On all other vehicles, the sign will be placed on the rear, in line with the formation sign where possible, on a prominent vertical surface as near to the extreme left as possible, and on the front, in one of the positions shown in order of preference below, so as to be indentifiable from a ground-level position directly behind and in front of the vehicle respectively:

- (1) on the front surface of the left front fender; or
- (2) on a vertical or near vertical surface as near as possible to the extreme left front of the vehicle; or
- (3) on a plate attached to the left front of the vehicle.

16. **Provision**

Transfers of corps coloured background for unit signs are provided by the RCOC. Local arrangements will be made for completing the signs by adding the serial number or abbreviated title, as appropriate, or for painting the entire sign when transfers are not available.

TABLE 3  
UNIT SIGNS

Serial	Corps/Unit (a)	Shape (b)	Colour (c)	Colour of Unit Title (d)
1	RCAC	Rectangular	Red upper left, yellow lower right, diagonal.	Black
2	RCA	Rectangular	Red over blue, horizontal.	Black
3	RCE	Rectangular	School: Quartered, blue upper left and lower right, white upper right and lower left. Units: Blue with letter "P" in white super-imposed.	Black
4	RC Sigs	Rectangular	White over blue, horizontal.	Red
5	RCIC	Rectangular	School: Quartered, red upper left and lower right, white upper right and lower left. Units: Red.	Black
6	RCASC	Rectangular	Gold lower left, blue upper right, diagonal.	Black
7	RCAMC	Rectangular	Units: Black	Black
8	RCDC	Rectangular	School: Quartered, black upper left and lower right, white upper right and lower left. Units: Black	Black

Vehicle Markings

Serial	Corps/Unit (a)	Shape (b)	Colour (c)	Colour of Unit Title (d)
9	RCOC	Rectangular	Red, Blue, Red, vertically divided.	Black
10	RCEME	Rectangular	Blue over yellow over red, horizontally divided.	Black
11	RCAPC	Rectangular	Black.	Black
12	C PRO C	Rectangular	School: Quartered, black upper left and lower right, white upper right and lower left. Units: Black.	Black
13	CPC	Rectangular	Black.	Black
14	C INT C	Rectangular	School: Quartered, black upper left and lower right, white upper right and lower left. Units: Black.	Black
15	HQ, HQ Units and miscellaneous units not otherwise provided for.	Rectangular	Black.	Black
16	Personnel and Manning Depots	Rectangular	Brown.	Black
17	CFMSTC	Rectangular	Quartered, black upper left and lower right, white upper right and lower left.	Black
18	Militia Pools	Circular	Orange.	Black letter "P" within circle
19	Airborne Units	Rectangular	Corps Units: Corps Colour(s) Maroon with Pegasus and Other Units: Balacophon in light blue superimposed.	Light Blue

## 32. Location

- a. The sign will be painted on:
  - (1) side body panels,
  - (2) roof of body,
  - (3) roof of drivers' cab,
  - (4) rear door(s) or panel.
- b. Windows located within the sign will not be painted.

## 33. Alternative Marking

A red crescent in lieu of a red cross is permitted by the Geneva Convention. This marking is used by Turkey.

## SECTION 9—PROVOST SIGN

## 34. Description

- a. Within a NATO theatre of operations the sign will consist of the military police or traffic control conventional symbol, as appropriate, described in ANNEX "A", "Staff Duties in the Field".
- b. Outside a NATO theatre of operations the sign will consist of the words "MILITARY POLICE", or "POLICE MILITAIRE" in predominantly French speaking areas, as applicable.

## 35. Location

- a. Within a NATO theatre:
 

The sign will be displaced on the front and on the rear of military police and traffic control vehicles and will be so placed as to avoid interference with other prescribed markings.
- b. Outside a NATO theatre:
  - (1) On all military pattern vehicles the lettering will be displayed on the front and the rear and will be so placed as to avoid interference with other prescribed markings.

Portions side ruled indicate Amdt 1/Mar/63



(2) On all commercial pattern vehicles the following will apply:

- (a) *Sides*. The lettering will be displayed centred on both sides of the vehicle.
- (b) *Rear*. The lettering will be displayed centred on the rear of the vehicle and will be so placed as to avoid interference with other prescribed markings.

#### 36. Colour and Size

- a. All vehicles will display the symbol "MP" or the words "MILITARY POLICE"/"POLICE MILITAIRE", in white lettering three inches high superimposed on a black background.
- b. Where a signboard is required the pattern and position will be as notified by the Provost Marshal.

### SECTION 10—TIRE PRESSURE SIGN

#### 37. Description

The sign consists of a figure indicating the number of pounds per square inch of air pressure to be maintained in all tires used on any vehicle, trailer or equipment. The size of the figures will depend on the type of vehicle, and the colour will be white or other contrasting colour as appropriate.

#### 38. Location

- a. When this information is not already shown on a plate provided by the manufacturer, the sign will be painted as follows:
  - (1) *Staff Cars*. On the inside of the glove compartment door.
  - (2) *Other Vehicles*. On the inside of the cab in a prominent position.
  - (3) *Trailer and Tower Equipments*. On any suitable surface.

Portions side ruled indicate Amdt 1/Mar/63

### SECTION 11—LEFT/RIGHT HAND DRIVE SIGN

#### 39. Description

The sign consists of the warning, "CAUTION—LEFT- (or RIGHT-) HAND DRIVE—NO SIGNALS" in 2" white letters painted or stencilled on the rear of the vehicle.

#### 40. Application

- a. The sign will be used only in the following circumstances:
  - (1) On left-hand drive vehicles in countries where vehicles drive on the left side of the road, the warning "LEFT-HAND DRIVE".
  - (2) On right-hand drive vehicles in countries where vehicles drive on the right side of the road, the warning "RIGHT-HAND DRIVE".

### SECTION 12—GENERAL OFFICERS' AND BRIGADIERS' MARKINGS

#### 41. Description

- a. The conventional military symbols, as follows, arranged in a horizontal line centred on a plate:

Field-Marshal	—	Optional
General	—	4 Symbols
Lieutenant-General	—	3 Symbols
Major-General	—	2 Symbols
Brigadier	—	1 Symbol

#### 42. Location

The plate will be affixed to the right end of the front bumper, facing forward, and the left end of the rear bumper, facing rearward, or comparable locations or vehicles without bumpers.



#### SECTION 4—LICENCE PLATES

##### 17. Canada

- a. All vehicles operated on provincial highways in Canada will carry current licence plates of the province or territory in which they are normally operated.
- b. The plates will be renewed annually except in those provinces which issue permanent military markers.
- c. Licence plates are obtainable through Ordnance channels.

##### 18. Outside Canada

The carriage of licence plates on vehicles normally operated in countries other than Canada will, in time of peace, be governed by the law, regulations or policies of the country or locality concerned. National or local civilian authorities should be consulted and appropriate steps taken to ensure compliance with any registration or other requirement.

#### SECTION 5—CANADIAN ARMY REGISTRATION NUMBER

##### 19. System

The system of numbering, with details of the classes and types of vehicles allotted registered numbers, is explained in CAO 286-15.

##### 20. Location

- a. The number will be located as follows:
  - (1) *Staff Cars*. In the centre, if space allows, or to the right of the instrument panel only.
  - (2) *Motorcycles*. On the top of the fuel tank in rear of the filler cap only.
  - (3) *Armoured Vehicles*. Outside, on the centre of the sides and the rear.
  - (4) *Vehicles Without Doors*. Outside, on the centre of the sides of the body.
  - (5) *All Other Vehicles*. Outside, on the doors of the driver's compartment, six-inches below the window.

##### 21. Size

The numbers will be 2" high, 14" wide and 1/4" thick. The size may be reduced at discretion in the case of staff cars; trucks, utility, 4-ton, and motorcycles.

##### 22. Colour

- a. On vehicles painted yellow, the number will be black.
- b. On all other vehicles the number will be white.

(5) { For Trucks 3/4 ton 4x4 with left door mounted spare tire, the number will be located immediately above the door on the side of the cab roof panel. A61  
63

## SECTION 6—BRIDGE CLASSIFICATION MARKINGS

### 23. General Description

The markings are Front Signs and Side Signs which consist of a yellow circle with the bridge classification number in black inscribed therein. Other contrasting colours may be used consistent with camouflage requirements.

### 24. Application

- a. The markings will be applied to all vehicles, trailers and towed equipments having a gross weight exceeding three tons, as follows:
  - (1) Single vehicles, including tank transporters will carry the front sign only.
  - (2) Combination (towing) vehicles will carry both front and side signs.
  - (3) Trailers and towed equipments will carry side signs only.

### 25. Inscription on Signs

- a. *General.* The inscription on the sign will be as large as the sign allows.
- b. *Front Sign.* The inscription on the front sign will indicate the laden solo class of the vehicle except that:
  - (1) On combination (towing) vehicles the front sign will indicate the combined load class of the train, with the letter "C" painted above the number, but within the circle, to distinguish the vehicle as a towing vehicle.
  - (2) On tank transporters and similar type vehicles the fixed front sign will indicate the maximum classification of the laden vehicle. In addition, one alternative front sign may be carried which will be placed so as to cover the fixed front sign when necessary to show the class of the vehicle unladen.
- c. *Side Sign.* The inscription will indicate the laden solo class of the prime mover, trailer or towed equipment.

### 26. Location and Size

- a. *Front Sign.* This sign will be painted on the right front bumper, facing forward, or in a corresponding position on vehicles without bumpers, and will be 9" in diameter or as large as the bumper will allow but not exceeding 9" in diameter.

- b. *Side Sign.* This sign will be painted on an appropriate outward surface on the right side of vehicle, trailer or equipment, and will be 6" in diameter.

### 27. Bridge Classifications Numbers

- a. Numbers are listed in Annex B;
- b. Applications for the load class number of vehicles not included in Annex B will be made through normal channels to AHQ (DEE). The following information is essential and any additional information available should be forwarded:
  - (1) Code, nomenclature and name of maker.
  - (2) Operational role.
  - (3) Width over tires, front and rear.
  - (4) Axle spacing (measured to centre of bogie axles) and spacing of bogie wheels.
  - (5) Total vehicle weight laden and unladen.
  - (6) Axle loadings, laden and unladen.
  - (7) Overall dimensions, length, width and height.
  - (8) Number of wheels (4 x 4, 6 x 4, 6 x 6, single, or dual, tracked or semi-tracked).
  - (9) Length of ground contact (tracked vehicles).
  - (10) Width of spuds or tracks (tracked vehicles).

## SECTION 7—NATIONAL DISTINGUISHING SYMBOLS

### 28. Application

The Armed Forces of the North Atlantic Treaty Nations have agreed that national symbols will be used to identify the vehicles of each country when operating within a NATO theatre. As a minimum, these symbols will be placed on the front and rear of vehicles.

### 29. Description

- a. The symbol for each country is described below:
  - (1) *Belgium.* The national colours, black, yellow and red, vertical. Precedes black number on white registration plate, or other marking on combat vehicles.
  - (2) *Canada.* Gold maple leaf. Superimposed on field formation signs.



- (3) *Denmark*. Red shield with white cross.
- (4) *France*. Tricolour, blue, white, red, vertical.
- (5) *Greece*. A white Christian cross on a blue background. Precedes black number on white registration plate or other marking on combat vehicles.
- (6) *Italy*. Tricolour, green, white, red, vertical.
- (7) *Luxembourg*. Red lion on horizontally striped blue and white background. Precedes white number on black registration plate.
- (8) *Netherlands*. Tricolour, red over white over blue, horizontal.
- (9) *Norway*. Norwegian flag design; blue cross outlined in white on red shield.
- (10) *Portugal*. White Christian cross outlined and extended in red on white square.
- (11) *Turkey*. White crescent and star on circular red background.
- (12) *Britain*. Union Jack.
- (13) *United States*. White, five-pointed star.

#### SECTION 8—GENEVA RED CROSS SIGN

##### 30. Vehicle Types

Ambulances and other vehicles provided exclusively for medical purposes will be marked in conformity with the rules of the Geneva Convention. Such other vehicles include troop carrying vehicles of motor ambulance companies and special purpose medical and dental vehicles but not vehicles temporarily fitted to carry stretchers, staff cars, station wagons or stores vehicles on the strength of medical and dental units.

##### 31. Design

The marking consists of a red cross on a square white background. The white square background will extend as far as practicable to the extremities of the particular part of the vehicle on which it is painted. The width of the arms of the red cross will be  $\frac{1}{4}$ th of the dimensions of the square white background. The arms of the cross will extend to the edges of the white square background.

#### SECTION 15—MOVEMENT SERIAL MARKINGS

##### 54. Definition

A movement serial is an element or group of elements within a series which is given a numerical or alphabetical designation for convenience in planning, scheduling or control of movement.

##### 55. Description

- a. The markings consist of flags, approximately 12" deep and 18" wide mounted as follows:
  - (1) A blue flag on the leading vehicle of each movement serial except that, in compliance with Dutch Law, in time of peace all but the rear vehicle in a movement serial in Holland will mount a blue flag.
  - (2) A green flag on the rear vehicle of each movement serial.
  - (3) A white, adjoining the flagstaff, over black diagonally divided flag on the vehicle of the movement serial commander.
- b. In addition, the number or letter assigned to a movement serial will be marked on the front and both sides of each vehicle in the serial. This marking is to be clearly visible from the ground and will be so placed as to avoid interference with other prescribed markings. The method of applying this marking will depend upon circumstances and is left to discretion.

##### 56. Location

In countries where vehicles drive on the right side of the road, the flags will be mounted on the left side of the vehicle, and vice versa.

#### SECTION 16—AIR/GROUND RECOGNITION MARKINGS

##### 57. Description

The markings consist of red and yellow fluorescent panels of cloth, approximately 6' by 2' 3", fitted with tie cords.

##### 58. Application

- a. The panels will be draped on vehicles in a standard unchanging pattern; the arrangement and conditions of use being prescribed by the theatre commander concerned.
- b. The markings may be used during exercises at the discretion of general officers commanding.



## SECTION 17—TACTICAL MARKINGS

### 59. Purpose

Tactical markings are used primarily to facilitate ground-to-ground recognition of sub-unit and, in some cases, individual vehicles during operations.

### 60. Description

- a. The markings consist of white or coloured stripes or geometrical figures, and numbers or letters, or combinations thereof; the designs being uniform throughout each corps.
- b. Tactical markings for the RCA are illustrated in Plate 1.
- c. Regimental colours, crests or personal names will not be painted on vehicles.

### 61. Location

The markings are normally painted on the sides and rear of the turret of armoured vehicles, and on the front, sides and rear of other vehicles. They will be so placed as to avoid interference with other prescribed markings.

### 62. Authority

- a. In the field, the use, design and position of tactical markings will be as directed by the field commander concerned. They will be removed when vehicles are permanently released from the jurisdiction of the commander prescribing their use.
- b. General officers commanding may authorize the use, and prescribe the design and position, of tactical signs for field exercises.

### 43. Application

- a. The marking will be placed on vehicles carrying:
  - (1) General officers and brigadiers.
  - (2) Officers of equivalent rank in the other Services.
  - (3) Officers of the same or equivalent rank in the Armed Forces of Commonwealth and foreign countries.
- b. The marking will be removed or covered when the vehicle is not actually in use by the officer concerned.
- c. The markings will be carried in addition to the vehicle distinguishing flags authorized in CAO 54-2.

### 44. Provision

These markings are available from the RCOC. Local manufacture will not be undertaken without AHQ authority.

## SECTION 13—PRIORITY SIGN

### 45. Description

The sign consists of an equilateral triangle of red border lines on a white background with a conventional military symbol, in red, centrally superimposed. The symbol will indicate the commander authorizing the use of the sign as in the example in Figure 1.

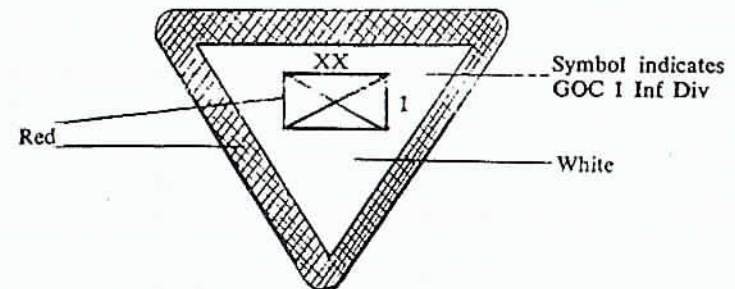


Figure 1

### 46. Size

The size of the sign will depend on the dimensions of the vehicle on which used but must be sufficiently large to command the attention of other drivers and traffic control personnel en route.

#### 47. Location

The sign will be displayed on the front and rear of the vehicle except that a single sign may be used if located so as to be visible from both front and rear. The precise location is left to discretion.

#### 48. Application

- A commander having area responsibility in a NATO theatre of operations may authorize the use of the sign on any vehicle which for any reason requires priority over all other vehicles, eg: vehicles carrying special liaison officers, priority dispatches, damage assessment personnel.
- The sign will normally be used only on direct orders of the commander concerned and must be removed when its use is not specifically authorized.
- The sign will be valid only in the area of the commander authorizing its use.
- General officers commanding may authorize the use of the sign during exercises.

#### 49. Provision

Required quantities and sizes may be manufactured locally on authority of the commander concerned.

### SECTION 14—DANGER SIGN

#### 50. Description

The sign consists of a red flag 24" square.

#### 51. Location

Flags will be mounted on the left front and left rear of vehicles when travelling on the right side of the road and vice versa.

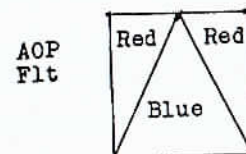
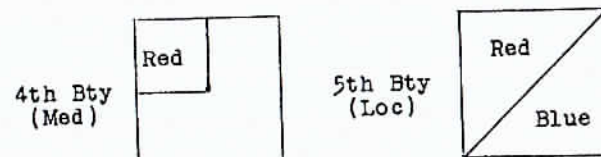
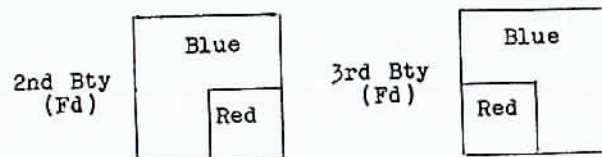
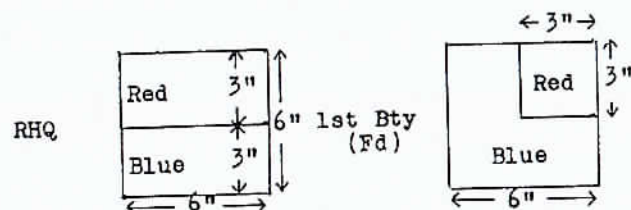
#### 52. Application

The sign will be mounted during daylight hours on all load-carrying vehicles laden with explosives or other dangerous substances.

#### 53. Special Marking

Vehicles of bomb disposal units will have red fenders. The required painting will be carried out under local arrangements.

### TACTICAL SIGNS, RCA



Tactical letters and numbers, in white and 4" high, may be centrally superimposed on the sign to denote individual vehicles.

Plate 1



SECTION 18—CENTRE OF GRAVITY MARKING

63. Application

Vehicles, including trailers and towed equipments with more than one axle, to be transported by air will be marked to indicate their centre of gravity. It is important to note that the centre of gravity of a vehicle changes when the vehicle is laden.

64. Description and Location

The mark is a white line 3" high and 1" wide painted on both sides of the body at the centre of gravity of the vehicle.

65. Computation

To determine the centre of gravity of a vehicle, the known factors are the weight on the front and on the rear axles, and the distance between them. The distance from the front axle to the centre of gravity is the unknown X. The distance from the rear axle to the centre of gravity equals the distance between the axles minus X. The equation, therefore, is that weight times distance, equals weight times distance minus X.

Example:

The weight on the front wheels of a vehicle is 1500 lbs and on the rear wheels 1200 lbs. The wheel base (distance between axles) is 80". The equation is solved as follows:

$$1500 \times X = 1200 \times (80 - X)$$

or,  $1500X = 96000 - 1200X$   
 then,  $2700X = 96000$   
 and  $X = 35\frac{1}{2}"$

The centre of gravity, therefore, is 35½" behind the front axle.

VEHICLE MARKINGS

Annex A

COLOUR SCHEDULE  
FOR MARKINGS REQUIRING LOCAL PAINTING

Serial	Description	Enamel GS.												
		Black No 10-1 (b)	Blue No 2-7 (c)	Brown No 4-2 (d)	Maroon No 10-3 (e)	Orange No 8-1 (f)	Red No 9-2 (g)	White No 10-2 (h)	Yellow No 5-2 (i)	Blue No 2-3 (k)				
1	Unit Signs:													
2	RCAC	*(c)										*		
3	RCA	*(c)	*											
4	RCE	*(c)	*											
5	RC Sigs		*							*(c)				
6	RCIC (a)	*(c)								*				
7	RCASC	*(c)	*							*				
8	RCOC	*(c)	*							*				
9	RCEME	*(c)	*							*				
10	Personnel and Manning Depots	*(c)												





## Annex B

## BRIDGE CLASSIFICATION NUMBERS

- NOTES:*
1. The following is a partial list of bridge classifications calculated according to a method agreed by the North Atlantic Treaty Nations. Revised annexes with additional vehicles and their classifications will be issued as calculations progress.
  2. Vehicles having a gross weight less than three tons are given no classification.
  3. The vehicles indicated in the Class column by a "P" are prototypes and classifications for these will be issued when the vehicles designs are completed.
  4. The numbers given apply also to those vehicles with winches attached.
  5. These classifications are for solo vehicles. Combined classifications will be notified later.

<i>NOMENCLATURE</i>	<i>CLASS</i>
Car, Scout, Ferret Mk 1 .....	4
Truck, Utility, 1-Ton, 4x4, M38 CDN (w/ or w/o winch)	—
w/Wireless Kit .....	—
w/Welding Kit .....	—
w/Dismountable Stretcher Rack Kit .....	—
w/Ambulance Kit .....	—
Truck, Utility, 1-Ton, 4x4, M38A1 CDN (w/ or w/o winch)	—
w/Wireless Kit .....	—
w/Welding Kit .....	—
w/Dismountable Stretcher Rack Kit .....	—
w/Line Laying Kit .....	—
Truck, Cargo, 1-Ton, 4x4, M37 CDN (w/ or w/o winch)	4
w/Line Laying Kit .....	4
w/Unit Repair Kit .....	P
w/Wireless Kit No 19 Set .....	P
w/Front Mounted Winch and Derrick Kit .....	P

**NOMENCLATURE** **CLASS**

Truck, Ambulance, 3-Ton, 4x4, M43 CDN .....	4
Truck, Panel, Utility, 3-Ton, 4x4, M152 CDN	
(w/ or w/o winch) .....	5
w/Wireless Kit, No 52 Set .....	P
w/Wireless Kit, No 19/19 Set .....	P
w/Wireless Kit, No 19 Set .....	P
w/Wireless Kit, No 19/52 Set .....	P
w/Cipher Kit .....	P
w/Exchange Kit .....	P
w/Communications Inspection Kit .....	P
Truck, Cargo, 2 1/2-Ton, 6x6, M135 CDN (w/ or w/o winch)	11
w/Front Mounted Winch and Derrick Kit .....	P
w/Cable Laying Kit .....	P
Truck, Gasoline, Tank, 2 1/2-Ton, 6x6, M217 .....	10
Truck, Cargo, 2 1/2-Ton, 6x6, M211 CDN (w/ or w/o winch)	11
w/Stores Rack Kit .....	11
w/Automotive Machine Shop Kit, Load C .....	11
w/Automotive Machine Shop Kit, Load E .....	11
w/Light Metal, and Blacksmith Workshop Kit .....	P
w/Armament Machine Shop Kit, Load H .....	P
w/Engineer Unit Maintenance Kit .....	P
Truck, Shop Van, 2 1/2-Ton, 6x6, M220 CDN	
(w/ or w/o winch) .....	11
W/Dental Operating Kit .....	11
w/Stores Bin Kit .....	11
w/Automotive Electric Shop Kit .....	11
w/Automotive Machine Shop Kit, Load A .....	11
w/Small Arms Kit .....	11
w/Instrument Machine Shop Kit .....	11
w/Engineer Machine Shop Kit .....	P
w/Field Wireless and Line Repair Kit .....	P
w/Optical and Instrument Repair Kit .....	P
w/Artillery Command Post Kit .....	P
w/Bacteriological Laboratory Kit .....	P
w/Office Kit RCAPC .....	P
w/LAA Control Centre Kit .....	P
w/Armament Machine Shop Kit Load F .....	P
Truck, Dump, 2 1/2-Ton, 6x6, M216 CDN (w/ or w/o winch)	11

**NOMENCLATURE** **CLASS**

w/Auxiliary Starting Kit .....	—
w/PE 95K Generator .....	P
w/Water Tank Kit .....	P
Trailer, Cargo, 1 1/2-Ton, 2-WH, M104 CDN .....	6
w/Automotive Machine Shop Kit Load B .....	6
w/Automotive Machine Shop Kit Load D .....	6
w/Welding Kit 300 amp .....	P
Trailer, Water, 1 1/2-Ton, 2-WH, M106 A1 .....	4
Trailer, No 1, Laundry Unit, 2-Trailer Type .....	—
Trailer, No 2, Laundry Unit, 2-Trailer Type .....	—
Bath Unit, Field, Mobile, M1950 .....	—
Trailer, 20-cwt, 2-WH, GS .....	—
Trailer, Water, (180 gal, 20-cwt, 2-WH) .....	—
Trailer, Workshop, Servicing (20-cwt, 2-WH) .....	—
Tank, Centurion, Mk III .....	55
Carrier, Universal No 3 Mk II .....	6
Carrier, Medium Machine Gun (No 3 Mk II) .....	6
Carrier, 3-Inch Mortar (No 3 Mk II) .....	6



NOMENCLATURE	CLASS
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Machinery "M" Mk 11 .....	8
Machinery "Z" Mk 11 .....	8
Mobile Kitchen .....	8
Office .....	8
Teleprinter .....	8
TEV Corps .....	8
TEV Div .....	8
Wireless "I" .....	8
Wireless "R" .....	8
Lorry, 3-Ton, 6-WH, Bacteriological Laboratory (3-Ton 6x6, 160 wb) .....	9
Chemical Warfare Laboratory .....	9
Machinery "A" .....	9
Machinery "B" .....	9
Machinery "F" .....	9
Machinery "L" .....	9
Machinery "RE 7½ KW" .....	9
Machinery "Z" .....	9
Mobile Petroleum Laboratory .....	9
Stores .....	9
Switchboard .....	9
TEV Army .....	9
TEV .....	9
X-Ray .....	9
Lorry, 4-Ton, 6WH FBE .....	12
GS .....	12
Machinery "H" .....	12
Machinery "M" .....	12
Machinery "RE 25 KW" .....	12
Pontoon .....	12
Tractor, Breakdown, Medium (4-Ton, 6x6, 151 wb) .....	12
Tractor, Breakdown, Heavy (5-Ton, 6x4, 166 wb) .....	12
Trailer, Cargo, 1 Ton, 2-WH M-100 CDN .....	—
w/Welding Kit Oxy-Acetylene .....	—
w/Line Laying Kit .....	P
Trailer, Cargo, 1-Ton, 2-WH, M101 CDN .....	—
w/Lubrication Kit .....	—
w/Arctic Enclosure Kit for Lubrication Kit .....	—

## NOTES

## PART 2—AIRCRAFT

### SECTION 1—GENERAL INSTRUCTIONS

#### 1. General

- a. This manual is the sole authority for the painting and placing of markings on Canadian Army aircraft. Additional or different markings or colours will not be used without prior approval of AHQ.
- b. The markings to be placed on aircraft will be in accordance with drawings listed in Table 1. Descriptions, locations and other details are indicated in ensuing sections.
- c. Formation, unit and tactical signs will not be placed on Canadian Army aircraft.

#### 2. Responsibility

In so far as possible, when aircraft are procured they will be painted and marked in accordance with requirements by the manufacturer. Subsequently, units are responsible that aircraft are painted and marked as prescribed in this manual.

#### 3. Definitions

- a. *Starboard and Port.* In this manual, "starboard" and "port" correspond to "right" and "left" respectively as viewed by a person seated in the pilot's seat.
- b. *Identification Markings.* Identification markings are those markings on the exterior of an aircraft which define the nationality, service, registration number and sometimes the role of the aircraft.
- c. *Maintenance and Handling Markings.* Maintenance and handling markings are those markings, on either the interior or exterior of an aircraft, which indicate to servicing personnel information which will ensure that the aircraft is serviced correctly and that no damage is caused during ground handling.
- d. *Operating Instructions.* Operating instructions are those markings which identify and define the method of operation of emergency mechanisms, including doors.

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- b. *Maintenance and Handling Markings*—Maintenance and handling markings are those markings, on either the interior or exterior of an aircraft, which indicate to servicing personnel information which will ensure that the aircraft is serviced correctly and that no damage is caused during ground handling.
- c. *Emergency Instructions.* Emergency instructions are those markings which identify and define the method of operation of emergency mechanisms, including doors.
- d. *Ramp Identification*—Ramp identification consists of the last three digits of the registration number, placed on the nose of the aircraft, to facilitate identification.

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## SECTION 2—STANDARDIZATION

4. All Canadian Army aircraft markings will be in accordance with those NATO and ABC Air Standardization Agreements on the marking of aircraft, to which the Canadian Army subscribes.

## SECTION 3—IDENTIFICATION MARKINGS

5. Details of Identification Markings for each aircraft are given in the drawings at Table 1.

### 6. National Identification Markings

- a. *Canadian Ensign*—The Canadian Ensign will, where possible, be placed on either side of the vertical tail section. On aircraft where this is not possible the location will be as shown in the appropriate drawing in Table 1.
- b. *Roundel*—Roundels will have a maple leaf centre. This symbol will be placed as follows:
  - (1) *Fixed Wing Aircraft*—on the upper surface of each main plane and on each side of the fuselage.
  - (2) *Helicopters*—on each side of the fuselage and on the upper surface if possible. (Exact markings will depend on configuration).

### 7. Registration Numbers

- a. The last three digits of the registration number will be placed on each side and on the nose of the aircraft. For fixed wing aircraft they will also be placed on the upper and lower surfaces of the main plane.
- b. The full registration number will be placed immediately below the Canadian Ensign wherever possible. Where this is not practicable, the full registration number will be placed in an alternate location as shown on the appropriate drawing.

### 8. Service Identification

- a. The words "CDN ARMY" will be placed on each side of the fuselage.
- b. The word "ARMY" will be placed on the upper and lower surfaces of the mainplane of fixed wing aircraft.

## 9. Aircraft Type

The military type designation will be placed on all aircraft (eg L19E, CH113A, L182F) immediately above the Canadian Ensign, wherever possible. Where this is not practicable, it will be placed in an alternate location as shown on the appropriate drawing.

## SECTION 4—MAINTENANCE AND HANDLING MARKINGS

10. The Maintenance and Handling Markings will be placed in accordance with the applicable RCAF Engineering Orders as listed in Table 1.

## SECTION 5—EMERGENCY INSTRUCTIONS

11. All normal and emergency entrances and exits and emergency mechanisms will be marked as indicated in the applicable RCAF Engineering Orders as listed in Table 1.

12. Suitably descriptive sketches, arrows etc and instructions, which are readily visible, are to be marked as near as possible to the operating handle of the emergency mechanism.

13. The wording is to be standard English such as "PULL", "PUSH", "TURN" etc.

14. Instructions in the aircraft will be limited as far as practicable to those required in an emergency.

## SECTION 6—GENERAL OFFICERS' MARKINGS

15. The conventional military symbols, as described in paragraph 41 of PART 1—VEHICLE AND AIRCRAFT MARKINGS, will be placed on aircraft which are carrying:

- a. General officers.
- b. Other Canadian service officers of equivalent rank.
- c. Officers of other countries of equivalent rank.

16. The plates will be affixed to the aircraft in such a manner that they will remain in position during flight.

17. No other general officer's markings or flags will be carried.



## SECTION 7—FORMATION, UNIT AND TACTICAL SIGNS

18. All aircraft employed in an operational role will carry the formation and unit signs for vehicles as approved in Part 1 of this manual.

19. Aircraft employed in a training role may be authorized by AHQ to carry a special unit marking in lieu of the formation and unit signs.

20. Signs will be readily replaceable dural plates. Sizes, locations and method of attachment will be detailed in the modification instructions for the specific aircraft type.

21. Tactical Signs will not be carried. No other organization markings or flashes are authorized.

## SECTION 8—COLOURS

### 22. Basic Aircraft Colours

Army aircraft will be painted according to their role and as specified in the detailed drawings.

- a. All aircraft of the operational *type*.
  - (1) When operating in Canada will be in Olive Drab.
  - (2) When operating with NATO forces will be in disruptive camouflage markings.
- b. All aircraft of a non-operational *type* will be in natural aluminum. Non-operational type Fixed Wing aircraft will have the red-orange sections on the upper and lower surfaces of the main and tail planes.

23. Olive drab aircraft will have the top surface of the fuselage nose, below the windscreen, which is forward of the pilot's position, painted with a matt finish anti-glare paint, when applicable.

### 24. Marking Colours

- a. Registration numbers, ramp identification and type of aircraft will be painted:
  - (1) In black on the camouflage aircraft.
  - (2) In white on the olive drab aircraft.
  - (3) In black on the natural aluminum aircraft.

- b. The Roundel and Canadian Ensign will be in standard national colours. The Roundel will have a white border when on Olive Drab.
- c. Formation and unit markings will be in standard corps colours.
- d. Maintenance and handling markings will be black on camouflaged aircraft and white on olive drab aircraft.
- e. External emergency markings will be in red. Internal emergency markings will be in stripes of black and orange/yellow, with arrows in orange/yellow and superimposed black lettering.
- f. All other internal lettering will be in a contrasting colour as detailed in the modification instructions for the specific aircraft type.
- g. First Air Kits will be indicated on the outside of the aircraft with a red Greek cross on a white background.



AIRCRAFT MARKINGS

TABLE 1

**RCAF DRAWINGS**

Type	Role	RCAF Drawing No
L19	Canada	5260
	NATO	5263
CH112	Canada	51616
	NATO	51645/51646
CH113A	Canada	51648/51649
	NATO	51650/51649
L182	Non-operational	51313

**STANDARDIZATION**

**NATO COLOURING**

1. Colouring and Marking of Transport and Communications Aircraft. NATO Stanag 3087  
RCAF EO 00-60-3087
2. Colouring and Marking of Aircraft, air observation, Artillery Ranging and Light Liaison. NATO Stanag 3088  
RCAF EO 00-60-3088

**MAINTENANCE AND HANDLING**

1. Aircraft Servicing Markings. ABC Air Std 11/1  
NATO Stanag 3109  
RCAF EO 00-60-11/1  
EO 05-1-2U
2. Identification of Aircraft Pipe Lines. ABC Air Std 17/3  
NATO Stanag 3104  
RCAF EO 00-60-17/3  
EO 05-1-2Y

**EMERGENCY INSTRUCTIONS**

1. Emergency Markings. ABC Air Std 51/2  
NATO Stanag 3230  
RCAF EO 00-60-51/Z
2. Emergency Control Colour Schemes in Fixed Wing and Rotary Wing Aircraft. ABC Air Std 10/23  
NATO Stanag 3341  
RCAF EO 00-60-10/23