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CHAPTER 8
RECONNAISSANCE OF EXISTING ROADS
SECTION 36-ROAD AND ROUTE CLASSIFICATION
AND REPORTING

0801. The NATO system of classifying and reporting on routes and roads is designed for staff purpose and especially for the planning of normal road movement. The system is fully described in “Staff Duties in the Field” Appendix K (WO Code No. 8457).

In each case the final classification is reduced to a formula:

a. Route classification.- Elements of the formula in order of expression are:

- (1) Minimum width.
- (2) Type of road.
- (3) Load capacity of roads and bridges.
- (4) Restrictions, if any.

b. Road classification. Elements of the formula in order of expression are:-

- (1) Prefix.
- (2) Limiting factors if any
- (3) Width.
- (4) Construction material.
- (5) Length (optional).
- (6) Obstructions, if any.

0802. Symbols.

- a. Symbols used in route classification are given in Table 8.1.
- b. Symbols used in the road classification formula are given in Table 8.2.
- c. Symbols used on maps and overlays to indicate the location and nature of obstructions etc, are shown on the reverse of the NATO road reconnaissance report format (Table 8.3).

RESTRICTED

d. Bridge information is expressed by a separate bridge symbol used on maps and overlays. Authorized bridge symbols have not yet been standardized.

e. Reporting obstructions: The existence of obstructions is indicated by adding “(ob)” to the road classification formula. Details are reported by symbols marked on a map or overlay and are tabulated in the reconnaissance report (see Table 8.3).

The following will be reported:

a. Overhead obstructions giving less than 14 feet (4.25 meters) overhead clearance such as tunnels, bridges, overhead wires and over hanging buildings.

Note:- If the standard overhead clearance is other than 14 feet (4.25 meters) the ruling dimensions must be specified. Special reconnaissance will be needed for loads which will not clear such obstructions.

a. Reductions in road widths which limit the traffic capacity e.g. craters, narrow bridges, archways and buildings. Critical road widths will be specified by the commander concerned.

b. Excessive gradients (7 percent and steeper), and excessive changes in gradient.

c. Curves which may not be negotiable by heavy vehicles with trailers (radius less than 100 feet or 30 meters).

d. Fords, indicating crossing width, depth and nature of bottom.

e. Ferries, indicating crossing width and capacity.

0803. Examples of classification formula:

a. **Route classification**

(1) “10.5 m x 70” denotes a route with a minimum width of 10.5 metres all-weather class 70.

(2) “20 ft Y 50 (Ob)” denotes a route with a minimum width of 20 feet, all weather (but limited traffic due to bad weather), Class 50, with temporary obstruction(s).

(1) "A 5.0/6.2 m k" denotes a concrete road, 5.0 meters travelled way, 6.2 meters wide including shoulders, with no limiting factors.

(2) “Bgs (f?) 10/16 ft r (3.5 mi) (w)” denotes a water bound macadam, crushed rock or coral road 10 feet wide travelled way, 16 feet wide including shoulders, with steep gradient a rough surface and unknown foundation 3.5 miles long subject to blockage by flooding.

- Tactical.
- Technical.
- Periodic maintenance.

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RESTRICTED

	Z	<p>traffic due to bad weather), In bad weather traffic reduced considerably below maximum dry weather capacity, and possible halted completely for very short periods e.g., water bound surfacing gravel, lightly metalled surface.</p> <p>Fair-weather road. Quickly becomes impassible in bad weather in bad weather and traffic may be halted completely for long periods, e.g., natural or stabilized soil, sand, clay etc.</p>
Load capacity	Figure denoting load class	The maximum class of vehicle which can use the route-in convoy (often restricted by the weakest bridge)
Restriction of movement	<p>(Ob)</p> <p>(T)</p> <p>(W)</p>	<p>Single obstructions on a long route, eg, a sharp curve with radius less than 100 feet, or a steep gradient exceeding 7 percent or</p> <p>Temporary obstructions on any route Subject to regular, recurrent and serious snow blockage</p> <p>Subject to regular recurrent and serious flooding.</p>

TABLE 8.2: SYMBOLS FOR ROAD CLASSIFICATION FORMULA

Element of formula	Symbol	Meaning
(a)	(b)	(c)
Prefix	A B	No limiting factors One of more limiting factors
Limiting factors-Sharp curves	“c”	Radius less than 100 feet (30 meters)
steep gradients	“g”	Gradients of 7 per cent, or steeper

RESTRICTED

Poor drainage	“d”	Inadequate ditches, crown/camber of culverts; culverts and ditches blocked or otherwise in poor condition
Weak foundation	“f”	Unstable, loose, or easily displaced material
		Bumpy, rutted, or potholed to an extent likely to reduce convoy speeds
Excessive camber or super elevation	“j”	Falling away so sharply as to cause heavy vehicles to skid or drag toward the roadside
Doubtful condition	?	If any factor cannot be determined, It will be expressed by bracketing a query with the appropriate symbol, e.g. (f?)
Shoulders..	-	No symbol, but written reports should specify the nature of the surface (grass, metalling, etc), and their width, condition, vegetation or critical side slopes
Width	Width of travelled way in “ft” or “m”obliquestroke-width including shoulders in “ft”or “m”	-
Construction material-		
Type X ..	“k”	Concrete
„ ..	“kb”	Bituminous or asphaltic concrete (bituminous plant mix)
„ ..	“p”	Paving brick or stone
Type X or Type Y	“rb”	Bitumen penetrated macadam, water bound macadam, with superficial asphalt or tar cover
Type ..	“r”	Water bound macadam, crushed rook or coral
„ ..	“l”	Gravel or lightly mentalled
Type Y or	“nb”	Bituminous surface treatment on

RESTRICTED

Type Z		natural earth, stabilized soil, sand-clay, or other select material
Constructional	material-continued	
Type Z	“n”	Natural earth, stabilized soil, sand, clay, shell, cinders, disintegrated granite, or other select material
-	“b”	This symbol, signifying bituminous construction, may be used alone only when the type of bituminous construction cannot be determine
-	“v”	Various other types not mentioned above
Length	If desired, the length in “mi” or “km” may be included, in brackets, in the formula	-
Obstructions	(ob)	The existence of obstructions is indicated by including this symbol at the end of the formula (see para 145 (e))
	(r)	Subject to regular, recurrent and serious snow blockage
	(w)	Subject to regular flooding, sufficiently serious to impede traffic flow