



**Technical Specification for
BELT, SWORD, RM, BROWN**

Defence Clothing (DC)

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PREFACE

TABLE 1 – PRODUCT LIST

Item Name		BELT, SWORD, RM, BROWN	
Development File No.			
Product Support File No.			
NATO Stock No.	User	Description	Pattern No.
8440-99-458-1212	RM Officers	BROWN BELT SWORD 28-30 IN (SIZE 1)	28647
8440-99-458-1213	RM Officers	BROWN BELT SWORD 31-33 IN (SIZE 2)	28647 TG
8440-99-458-1214	RM Officers	BROWN BELT SWORD 34-36 IN (SIZE 3)	28647 TG
8440-99-458-1215	RM Officers	BROWN BELT SWORD 37-39 IN (SIZE 4)	28647 TG
8440-99-458-1216	RM Officers	BROWN BELT SWORD 40-42 IN (SIZE 5)	28647 TG
8440-99-458-1217	RM Officers	BROWN BELT SWORD 43-45 IN (SIZE 6)	28647 TG

Any colour shown in this document is for representation and must not be used for colour matching

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TABLE 2 – ISSUE RECORD

Issue No.	Comments	Issue Date
3	NATO stock number NSC changed from '8465' to '8440'	03 September 2010
2	Reformatted Rationalisation of measurements between Master & Standard Patterns	04 August 2010
1	New Specification	02 September 1996

PART 1

1. THE PRODUCT

- a. Use of the Product. Worn by Royal Marine Officers for ceremonial use. Figure 1 shows belt with slings attached.

FIGURE 1



TABLE 3 – RELATED SPECIFICATIONS AND DOCUMENTS

Specification/Document	Detail
BS EN ISO 105 Part B02 Part X12 Part E01	Textiles. Tests for colour fastness Colour fastness to artificial light: Xenon arc fading -lamp test Colour fastness to rubbing Colour fastness to water
BS EN ISO 3378	Leather. Physical and Mechanical Tests. Determination of Resistance to Grain Cracking and Grain Crack Index
BS EN ISO 11640	Leather. Tests for colour fastness
BS EN 1652	Copper and copper alloys. Plate, sheet, strip and circles for general purposes
BS 2780	Glossary of leather terms
BS 7318	Specification for industrial sewing threads made from linen (flax) or cotton
UK/SC/5126	Insignia, Buttons, Pins, Plates and Titles Manufactured from Gilding Metal, Brass and Nickel Silver
UK/SC/5699	Leather vegetable tanned various

2. PATTERNS

- a. Master Patterns. DC holds a Master Pattern for this product. Potential contractors may view the pattern on site by arrangement with the DC Commercial Department
- b. Standard Patterns. A Standard Pattern may be obtained from the DC Technical Information Office and may be used to provide the criteria for all materials, components and manufacturing features not fully defined in this specification

PART 2

3. PRODUCT DESIGN

a. Product Description

TABLE 4 – PRODUCT COMPONENTS

4.1 Leather	<ul style="list-style-type: none"> • Terms used are defined in BS 2780 • Leather – vegetable tanned bovine skin • All leather is to comply with the requirements of UK/SC/5699 – Leather vegetable tanned various • All leather is to be free from flaws and other defects • The appearance of the grain is to be as standard pattern. There is to be no looseness of grain (pipeness) when tested to BS EN ISO 3378 the leather is to have a minimum crack index of 15 • The data sheets define the leathers thicknesses used. Thickness is defined in millimetres. The contractor is responsible for using such types or thicknesses of leather as will produce an item to match the standard patterns • Leather dye to comply with the colour fastness requirements test in Table 6b • Mixed shades of leather within the individual items are strictly not acceptable
4.2 Coloured Yarns	<ul style="list-style-type: none"> • All coloured yarns used in the manufacture of these items are to be of equal quality to those used in the standard pattern, and meet the test requirements of: Table 6a colour fastness
4.3 Embellishments and fittings	<ul style="list-style-type: none"> • All self coloured brass embellishments and fittings are to be CW505L (CuZn30) as per BS EN1652 and are to have a polished finish • All metal embellishments and fittings are to be free of cracks, burrs and other visible defects
4.4 Sewing thread	<ul style="list-style-type: none"> • All hand sewing threads are to be 18s count linen, 3 cord to BS 7318 or an approved alternative (sewing threads for leather items may be treated with beeswax)
4.5 Other components	<ul style="list-style-type: none"> • Other components not specified above must be as in the Standard Patterns or an alternative approved by DC with similar performance characteristics

TABLE 5 – PRODUCT CONSTRUCTION

5.1 Design and assembly of belts etc.	<ul style="list-style-type: none">• The design, assembly, textures and shades of all items are to be strictly in accordance with that of the guiding standard pattern, except those caused through the effects of natural wear and tear and ageing• As detailed in the Data sheets• Belts are to be delivered in a clean condition
5.2 Stitching	<ul style="list-style-type: none">• The stitching is to be by hand and is to have 7 stitches per 25mm, and to be correctly tensioned• All sewing is to be free from pucker• All ends of stitching are to be back tacked finished or over run by two stitches are to be free from all ends of thread• Leather point needles are to be used for the attachment of all leather work
5.3 Measurements	<ul style="list-style-type: none">• All measurements specified in the data sheets are in millimetres unless otherwise stated - See data sheets• Table 8 denotes dimensional tolerances to be adhered to

TABLE 6 – COLOUR FASTNESS REQUIREMENTS

Minimum ratings unless otherwise stated in the tender or contract

a. Colour fastness for textiles

METHOD OF TEST – BS EN ISO 105					
	BO2	X12		EO1	
	LIGHT (XENON)	RUBBING		WATER	
	Reference Rating	Dry Rubbing	Wet Staining	Colour Change	Colour Staining
Threads & Yarns	4-5	-	-	4-5	4-5
Finished Items	-	4	3	4-5	4-5

b. Colour fastness for leather

METHOD OF TEST			
BS EN ISO 11640			
Dry 500 Cycles		Damp Felt Pad 20 Cycles	
Grain Surface	Pad (Staining)	Grain Surface	Pad (Staining)
4-5	3-4	4-5	3-4

4. PACKAGING AND LABELLING REQUIREMENTS

- a. Package and Labelling should be in accordance with the contract
- b. Items should always be packaged in a way to prevent damage during transit and storage.
- c. Individual NSNs are to have a vinyl, sewn-in, printed label securely attached into a seam such that it will not be visible when the item is in use. Alternatively a swing tag label may be used; securely attached without damage to the item.
- d. Individual NSNs should be packaged in a clear polyethylene bag. Where the sew-in label or swing tag is not visible through the polyethylene bag; a separate self-adhesive press label should be affixed to the polyethylene bag.
- e. Sew-in labels, swing tags and self-adhesive press labels and are to clearly show: item description, NSN, contract number, size and year of manufacture
- f. Multiple quantities of individually packaged NSNs may be shipped in the same box. Mixed NSN multiple packaging is not permitted.
- g. Multiple packaging label - Each outer package is to be clearly labelled with the Item Description, NSN, Contract Number, Quantity, Denomination and year of manufacture

TABLE 7 – SPECIMEN LABELLING

- Item – Sewn – in and Swing tag labels

Item Description
NSN
Contract Number
Size
Year of Manufacture

- Multiple packaging label

Item Description
NSN
Contract Number
Quantity
Denomination
Year of Manufacture

TABLE 8 – DIMENSIONAL TOLERANCES

The following tolerances apply unless otherwise specified within the data sheets

Where items are to be fitted together the plus and minus tolerances may need to be adjusted to allow for correct fitting

In millimetres (unless otherwise specified)				
From	To	+/- tolerance for leather	+/- tolerance for textiles	+/- tolerance for metal ware
0.001	9	5%	5%	2%
10	49	1	1	0.5
50	149	2	2	1
150	299	2	5	2
300	599	5	10	
600	899	5	15	
900	999	5	20	
1000	1499	5	25	
1500	2000	5	30	

PART 3

5. DATA SHEETS

- a. The following section contains data sheets listing bill of materials, manufacturing information, dimensions and images for each belt, sling etc. NSN listed in table 1.
- b. Relevant Standard Patterns are to be used to govern shade, all shades depicted on data sheets are for guidance only.
- c. Any pattern suffixed with TG is a pattern To Guide for manufacture of a range of similar design.

NATO Stock Number	8440-99-458-1212 through 1217
Pattern No.	28647 and 28647 TG
Description	Belt Sword RM Brown. (Size 6 illustrated)

DETAIL

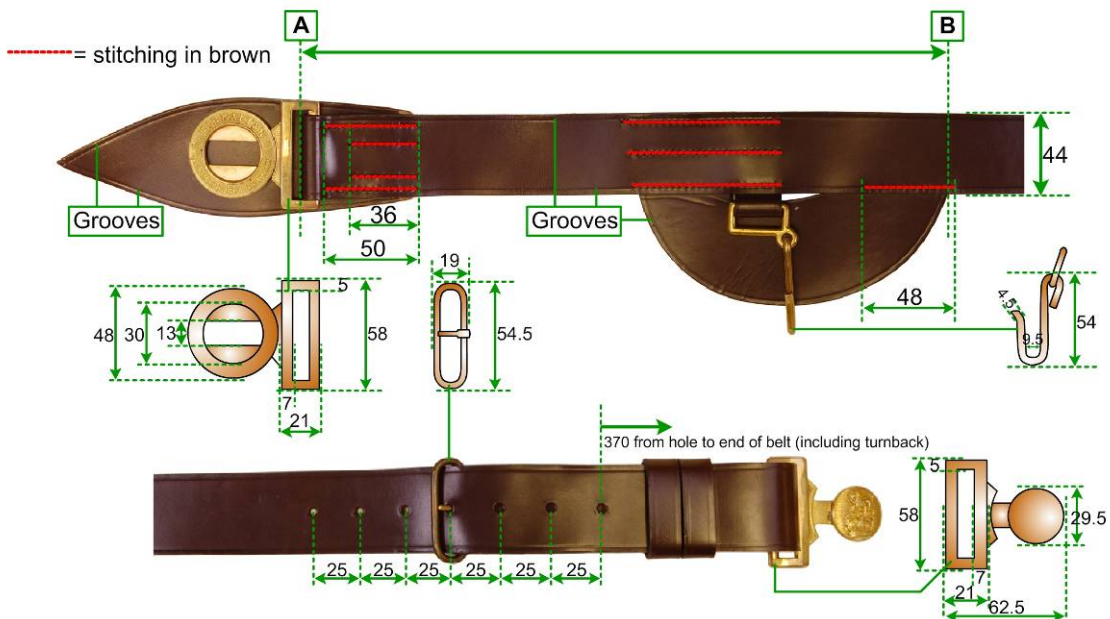
Belt front view



Belt rear view



Belt outer



All measurements are in mm. Refer to Table 8 for tolerances

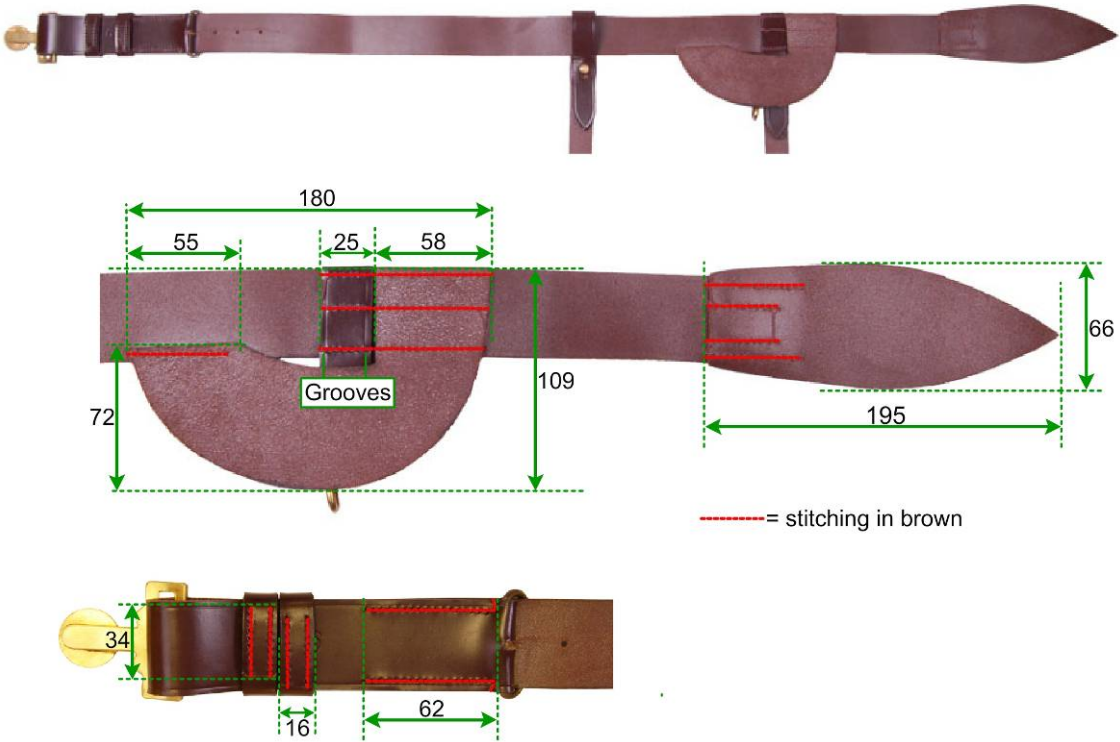
CONTINUATION OF 8440-99-458-1212 THROUGH 1217

DETAIL

Plate fastener detail



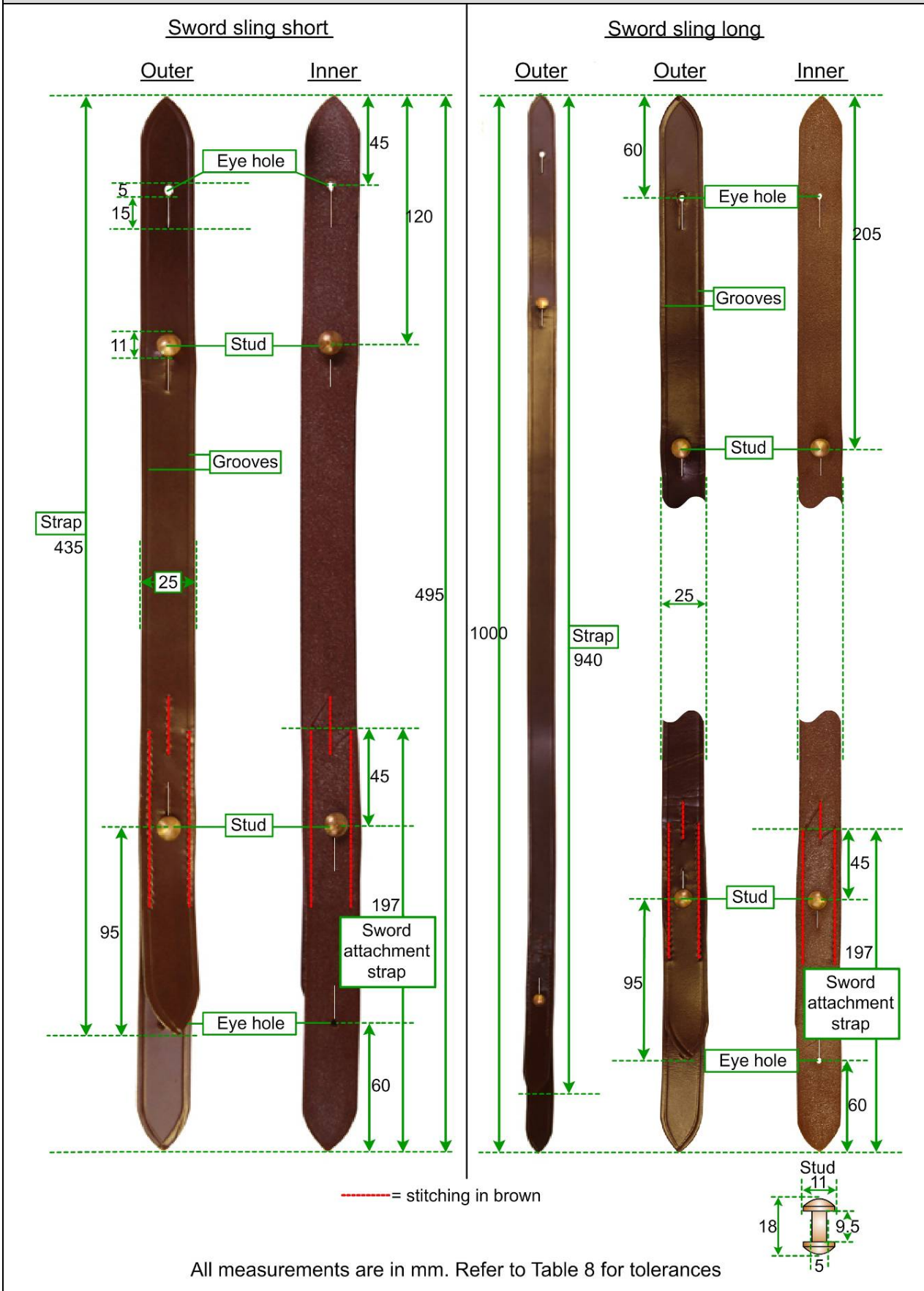
Belt inner



All measurements are in mm. Refer to Table 8 for tolerances

CONTINUATION OF 8440-99-458-1212 THROUGH 1217

SWORD SLINGS DETAIL



CONTINUATION OF 8440-99-458-1212 THROUGH 1217	
BILL OF MATERIALS	
Main materials	<ul style="list-style-type: none"> Body of belts, sword slings, securing straps, belt loops, tongues and guards - Leather, cattlehide, dyed through and pigment finished; thickness to be no less than 2.5mm and no more than 2.9mm. The shade of the leather is to match that of the standard pattern
Metal wear	<ul style="list-style-type: none"> Buckles, sword hooks and studs – Self coloured brass, (CW505L (CuZn30) as BS EN 1652) Belt plate, (union lock), RM – Self coloured brass, to comply with the requirements of specification UK/SC/5126. NSN 8315-99-137-6666
CONSTRUCTION INFORMATION	
Waist belt	<ul style="list-style-type: none"> The belt, waist, leather , adjustable, 44mm wide, length according to size schedule, is to have seven, 4mm diameter adjustment holes punched through the leather centrally. The centre of the first hole to be positioned 370mm from the adjustable end of the belt including turn back. The remaining holes are to be spaced 25mm apart from centre to centre The male portion of the belt plate (union lock) is to be fitted into the end of the fold of the adjustable turn back Two free running belt loops, 16mm wide, are to be fitted to the belt, ensuring that the loops encircle the belt and the adjustable turnback A single prong buckle is to be securely fitted at the end of the belt, held in place by a 70mm turnback. The prong is to be inserted through a crew punch, 25mm long and 5mm wide. The buckle and turnback are to be secured by two rows of hand stitching plus stitches securing the outer edges as on the standard pattern The female portion of the belt plate (union lock) is to be fitted to the opposite end of the waist belt, securely held in place by a 50mm turnback A shaped tongue, 195mm long shaped as on the standard pattern is to be attached to the waist belt by four rows of stitching which are to pass through the tongue, body of the belt and the turnback A sword guard, shaped as on the standard pattern, is to be securely sewn to the body of the waist belt, with the furthest edge of the sword guard 313 mm (12.25”) from the female end of the belt (A to B on line diagram) for size 4 and proportionally for the other sizes, the proportion being a third of the minimum specified waist size of the belt

CONTINUATION OF 8440-99-458-1212 THROUGH 1217	
CONSTRUCTION INFORMATION	
Waist belt – continued	<ul style="list-style-type: none"> The sword hook is to be attached by means of a leather loop, 130mm long and 25mm wide, and is to abut the inner edge of the sword guard, as on the standard pattern. Both sword hook and guard are to be secured by three rows of stitching, as indicated on the standard pattern
Sword slings short and long	<ul style="list-style-type: none"> The sword sling short and sword sling long are to be 25mm wide tapering to a point at each end. The length of the long sword sling is to be 940mm (excluding attachment strap) and 435 mm (excluding attachment strap) for the short sword sling for all belt sizes The sword sling short is to have two eyeholes inserted, the centres of the round holes to be 45mm and 120mm respectively from the tapered free end .The sword sling long is to have two eyeholes inserted, the centres to be 60mm and 205mm respectively from the tapered end. One eyehole is to be inserted, the centre 95mm from the opposite end of both the sword slings, to which the sword attachment straps are to be attached The direction of the eyeholes is to follow the standard pattern in all cases The second eyehole from the tapered free end of each sword sling is to be fitted with a double headed stud Each sword attachment strap is to have two eyeholes, one with the centre of the round hole 60mm from the tapered free end and the centre of the round hole of the other 45mm from the square end The single eyehole of the sword sling and the eyehole toward the square end of the sword attachment strap are to be aligned and the sling and strap secured together by three rows of stitching, as on the standard pattern and be fitted with a double headed stud
General	<ul style="list-style-type: none"> All edges are to be embossed on the topside with a groove, 3mm from the edge as on the standard pattern All edges are to be dye fast to match the leather All turnbacks, belt loops and tongues are to be skived to produce a neat finish

CONTINUATION OF 8440-99-458-1212 THROUGH 1217				
Labelling		• See Section 4		
SIZE SCHEDULE				
NSN 8440-99-458	Size No	Belt length (effective)		A - B
		mm	inches	
1212	1	722 - 762	28 - 30	241
1213	2	787 - 838	31 - 33	262
1214	3	864 - 914	34 - 36	288
1215	4	940 - 991	37 - 39	313
1216	5	1016 - 1067	40 - 42	339
1217	6	1092 - 1114	43 - 45	364