

Universal Multiple-Octet Coded Character Set  
International Organization for Standardization  
Organisation Internationale de Normalisation  
Международная организация по стандартизации

**Doc Type:** Working Group Document

**Title:** Revised proposal for encoding the Glagolitic script in the UCS

**Source:** Michael Everson, EGT (IE)

**Status:** Expert Contribution

**Action:** For consideration by JTC1/SC2/WG2 and UTC

**Date:** 1998-11-24

This document is based on the proposal written by Joe Becker and published in UTR#3, and the proposal written by me in N1659. It is a revision of N1659, and contains the proposal summary.

## A. Administrative

### 1. Title

Revised proposal for encoding the Glagolitic script in the UCS.

### 2. Requester's name

Michael Everson, EGT (WG2 member for Ireland).

### 3. Requester type

Expert contribution.

### 4. Submission date

1998-11-24.

### 5. Requester's reference

#### 6a. Completion

This is a complete proposal.

#### 6b. More information to be provided?

No.

## B. Technical – General

### 1a. New script? Name?

Yes. Glagolitic.

### 1b. Addition of characters to existing block? Name?

No.

### 2. Number of characters

92.

### 3. Proposed category

Category B.1.

### 4. Proposed level of implementation and rationale

As an alphabetic script, Glagolitic requires Level 1.

### 5a. Character names included in proposal?

Yes.

### 5b. Character names in accordance with guidelines?

Yes.

### 5c. Character shapes reviewable?

Yes (see below).

**6a. Who will provide computerized font?**

Michael Everson.

**6b. Font currently available?**

Yes.

**6c. Font format?**

TrueType.

**7a. Are references (to other character sets, dictionaries, descriptive texts, etc.) provided?**

Yes. ISO 6861:1996 is a coded character set for Glagolitic, as well as the bibliography below.

**7b. Are published examples (such as samples from newspapers, magazines, or other sources) of use of proposed characters attached?**

Yes, see annex A below.

**8. Does the proposal address other aspects of character data processing?**

No.

## **C. Technical – Justification**

**1. Contact with the user community?**

Yes: Dr. Hinko Muren (Slovenia), ISO/TC46/SC2, ISO/TC46/SC4

**2. Information on the user community?**

Scholarly, ecclesiastical, and library communities.

**3a. The context of use for the proposed characters?**

Used to write Old Church Slavonic.

**3b. Reference**

See bibliography below.

**4a. Proposed characters in current use?**

Yes.

**4b. Where?**

By scholars, churchmen, and librarians.

**5a. Characters should be encoded entirely in BMP?**

Yes.

**5b. Rationale**

Accordance with the Roadmap, and close relationship of Glagolitic and Cyrillic texts.

**6. Should characters be kept in a continuous range?**

Yes, they should be encoded in a single block as presented here.

**7a. Can the characters be considered a presentation form of an existing character or character sequence?**

Yes: xx1E and xx4E could be represented by the sequences xx1D + xx09 and xx4D + xx39 respectively.

**7b. Where?**

**7c. Reference**

**8a. Can any of the characters be considered to be similar (in appearance or function) to an existing character?**

No.

**8b. Where?**

**8c. Reference**

**9a. Combining characters or use of composite sequences included?**

Yes.

**9b. List of composite sequences and their corresponding glyph images provided?**

Generic combining characters can occur with Glagolitic base forms.

**10. Characters with any special properties such as control function, etc. included?**

No.

## E. Proposal

### User community

Glagolitic was developed in the 9th century to write Old Church Slavonic ( $\approx$  Old Bulgarian). It arose more or less in parallel with the Cyrillic alphabet for the same language, and the two alphabets correspond to each other quite closely. The relationship between the origins of Glagolitic and Cyrillic is unknown, though St. Cyril is said to have had a hand in the creation of both. The Cyrillic script gradually supplanted Glagolitic, but Glagolitic continued in some liturgical use until the 19th century.

### Structure

In the encoding, Glagolitic is treated as a separate script from Cyrillic, principally because the letter shapes are in most cases totally unrelated, with differences not at all arising from “mere font style”. Glagolitic itself is seen in two slightly different styles, called the Bulgarian and the Croatian (“Illyrian” in Faulmann 1880). The Croatian form distinguishes uppercase and lowercase letters, although the difference in nearly all instances is merely one of size. The letterforms shown in the charts are Bulgarian style.

### Directionality

Like Cyrillic, the Glagolitic script is written in linear sequence from left to right with no contextual modification of the letterforms.

### Ordering

The ordering is basically the same as that of the (old) Cyrillic alphabet. Occasionally, sources show minor variations in the ordering of one or two characters (as they also do for Cyrillic). Ordering here follows that of Cubberly and Хабыграев.

Cubberly 1996 gives the following order and names:

azъ, buky, vědi/vědě, glagoli/glagolъ, dobro, jestъ/estъ, živěte, (d)zělo, zemlja, i/ižei, iže, g'ervъ/derвъ, kako, ljudъje/ljudije, myslite/myslěte, našъ, onъ, pokoj, gъci, slovo, tvrdo/tverdo, ukъ/ikъ, frtъ, chěrbъ/cherbъ, otъ, ci, črvъ, ša, štja, jerъ, jery, jerъ, ětъ/jatъ, {jo}, [ju], jusъ malyi, jusъ malyi jotirovannyj, jusъ bolъšij, jusъ bolъšij jotirovannyj, (thita)/fita, ižica

Cubberly 1996 shows the Illyrian variant glyphs, but not for FRT and HER, and omits JO (which I have given in {curly brackets} here; I have given three characters for which he does not give names in [square brackets]).

Хабыграев 1986 gives the following order and names (spellings romanized here):

azŭ, buky, vědi, glagoli, dobro, jestŭ, živěte, zělo, zemlja, ižen, iže, g'ervŭ, kako, ljudije, myslite, našŭ, onŭ, pokoi, rŭci, slovo, tvrŭdo, oukŭ, frŭtŭ, xěrbŭ, otŭ (omega), ci, črŭvŭ, ša, šta, jerŭ, jery, jerŭ, jatŭ, {jo}, [ju], jusŭ malyi, [jɛ], jusŭ bolŭšii, [jɔ], fita, ižica

Хабыграев 1986 omits the Illyrian variants and omits JO (which I have given in {curly brackets} here; I have given three characters for which he does not give names in [square brackets]).

ISO 6861:1996 gives no explicit order and the following names:

azu buki, vedi, glagol', dobro, esi', živěte, zělo, zemlja, iže, i, g'erv', kako, ljudi, myslite, naš, on, pokoj, r'ci, slovo, tvrdo, uk, fert, xěr, omega, cy, červ', ša, šta, er, ery, er', jat', jo, ju, as, es, jes, jas, fita, ižica

Faulmann 1880 gives the following order and names:

Az, Buki, Vědi, Glagol', Dobro, Est', Živěte, Zělo, Zemlja, Iže, I, Derv, Kako, Ljudi, Myslite, Naš, On, Pokoj, R'ci, Slovo, Tvr'do, Uk, Fert, Khěr, O, Šta, Tsi, Tšerv', Ša, Jer, Jery, Jerek, Jet', {Jo}, Ju, Aš, Eš, Jaš, Ješ, Thita, Ižica

Faulmann 1880 shows Illyrian variants but does not have the glyph for HER; he omits JO (which I have given in {curly brackets} here).

Leskien 1922 gives the following order (in romanization):

a, b, v, g, d, e, ž, dz, z, i, i, g, k, l, m, n, o, p, r, s, t, u, f, ch, o, št, c, č, š, ů, y, ĭ, ě, {jo}, ju, e, a, je, ja, f, ü

Leskien 1922 omits the Illyrian variants and omits JO (which I have given in {curly brackets} here).

Haarmann 1990 gives the following order (in romanization):

a, b, v, g, d, e, ž, dz, z, i, i, γ, k, l, m, n, o, p, r, s, t, u, f, θ, x, ω, št, c, č, š, ъ, y, ъ, ě, {jo}, ju, e, o, je, jo, v

Haarmann 1990 omits the Illyrian variants and omits JO (which I have given in {curly brackets} here).

Muren 1996 gives the following order and names:

azъ, buky, vědě, glagoli, dobro, jestъ, živěte, dzělo, zeml'a, iže, i, děrvъ, kako, l'udъje, myslite, našъ, onъ, rokojъ, r'ci, slovo, tvr'do, ukъ, frъtъ, hěrъ, otъ, šta, ci, črvъ, ša, jery, jerъ, jatъ, {jo}, ju, ešъ, ješъ, ošъ, jošъ, ižica, fita

Muren 1996 shows the Illyrian variant glyphs, but not for FRT and HER, and omits JO (which I have given in {curly brackets} here).

In general it is the positions of CI, CHRV, SHA, and SHTA, as well as those of AS, ES, JAS, and JES, which differ from list to list.

## Variant Glyph Forms

Several of the letters have variant glyph forms. These are not given separate character codes here. In ISO 6861:1996 five variant forms are explicitly encoded, and were in N1659. Discussion with the convener of ISO/SC4/WG2 indicated that in bibliographical contexts, probably *most* current use transliterates Glagolitic into Cyrillic in any case, and it is suggested that the variant characters in ISO 6861:1996 be unified with the basic letters at the present time. If in future evidence proves that the distinction must be made, there is room in the table to add them.

Only one character, GLAGOLITIC LETTER JO, is found in ISO 6861:1996 and not other sources to hand. Because ISO 6861:1996 presents it with its numeric value (7000) it is assumed that sources to hand in drawing up that standard did attest the character, and it is accordingly retained in this proposal.

## Punctuation and diacritics

Glagolitic uses the following punctuation:

,	002C	COMMA
.	002E	FULL STOP
;	037E	GREEK QUESTION MARK
·	0387	GREEK ANO TELEIA
:	0589	ARMENIAN FULL STOP
∴	10FB	GEORGIAN PARAGRAPH SEPARATOR

ANO TELEIA is used, flanking a letter on either side, to show the numeric use of the letter (Faulmann 1880). Glagolitic uses numerous diacritical marks, many of them in common with Cyrillic. It is suggested

that research on the use of these in both Cyrillic and Glagolitic be initiated, and that any characters missing from the UCS be added at a future date to the general Combining Diacritical Marks block if necessary. It has been observed that a line above or a tilde above a letter or letters can be used to show the numeric use of the letter.

## Numeric values

Glagolitic letters have inherent numeric values. Xa6ыpaeB shows the characters with their oldest, Greek-based numeric values; the others show the later Slavonic values.

Name	ISO 6861	Cubberly	Xa6ыpaeB	Leskien	Faulmann	Diringer	Muren
AZ	1	1	1	1	1	1	1
BUKY	2	2		2	2	2	2
VEDI	3	3	2	3	3	3	3
GLAGOLI	4	4	3	4	4	4	4
DOBRO	5	5	4	5	5	5	5
JEST	6	6	5	6	6	6	6
ZHIVETE	7	7		7	7	7	7
DZELO	8	8	6	8	8	8	8
ZEMLJA	9	9	7	9	9	9	9
IZHE	20	20	8	20	10	10	10
I	10	10	10	10	20	20	20
GERV	—	30		30	30	30	30
KAKO	40	40	20	40	40	40	40
LJUDIJE	50	50	30	50	50	50	50
MYSLITE	60	60	40	60	60	60	60
NASH	70	70	50	70	70	70	70
ON	80	80	70	80	80	80	80
POKOJ	90	90	80	90	90	90	90
RCI	100	100	100	100	100	100	100
SLOVO	200	200	200	200	200	200	200
TVRDO	300	300	300	300	300	300	300
UK	400	400	(400)	400	400	400	400
FRT	500	500	500	500	500	500	500
HER	6000/600	600	600	600	600	600	600
OT	700	700	800	700	700	700	700
CI	900	900	900	900	900	900	900
CHRV	1000	1000	90	1000	1000	1000	1000
SHA	2000	(800)					(2000)
SHTA	800	(800)		800	800	800	800
JER	4000						(3000)
JERY	--						
JERI	3000						(?)
JAT	5000					800	800
JO	7000						
JU	8000						(5000)
AS	—		(900)	900		900	
ES	9000						
JAS	—						
JES	—						
FITA	9/500		9	9		9	
IZHICA	400		400	400			

## Character sequence

The letter JERY could be considered as the sequence of JER and I. Indeed, the Russian JERU is also a sequence of SOFT SIGN and BYELORUSSIAN-UKRAINIAN I. As sources give GLAGOLITIC JERY in the repertoires, and as it relates to a unitary Cyrillic letter, it is suggested that it be encoded here.

# Unicode Character Properties

Spacing letters, category “Lo”, bidi category “L” (strong left to right)

xx00-xx28, xx30-xx58

## Bibliography

- Cubberly, Paul. 1996. “The Slavic alphabets”, in Peter T. Daniels and William Bright, eds. *The world's writing systems*. New York; Oxford: Oxford University Press. ISBN 0-19-507993-0
- Diringer, David. 1996. *The alphabet: a key to the history of mankind*. Munshiram Manoharlal. ISBN 81-215-0748-0
- Faulmann, Carl. 1990 (1880). *Das Buch der Schrift*. Frankfurt am Main: Eichborn. ISBN 3-8218-1720-8
- Haarmann, Harald. 1990. *Die Universalgeschichte der Schrift*. Frankfurt: Campus. ISBN 3-593-34346-0
- ISO 6861:1996. *Information and documentation — Glagolitic alphabet coded character set for bibliographic information interchange*.
- Leskien, A. 1922. *Handbuch der altbulgarischen (altkirchenslavischen) Sprache*. 6. Auflage. Heidelberg: Carl Winters Universitätsverlag.
- Muren, Hinko. 1996-12-22. Ljubljana, Slovenia. Personal communication.
- Nakanishi, Akira. 1990. *Writing systems of the world: alphabets, syllabaries, pictograms*. Rutland, VT: Charles E. Tuttle. ISBN 0-8048-1654-9
- Unicode Consortium. 1992. *Unicode Technical Report #3: exploratory proposals*.
- Хабургаев, Георгий Александрович. 1986. *Старославянский язык*. Москва: Просвещение.







Uncial Greek	Cyrillic	Bulgarian Glagolitsa	Croat. Glagolitsa	Names of the letters	Phonetic value	Num.
A	Ⲁ	ⲀⲀⲀ	ⲀⲀⲀ	az	a	1
B	Ⲃ	ⲂⲂⲂ	ⲂⲂⲂ	buky	b	2
Γ	Ⲅ	ⲄⲄⲄ	ⲄⲄⲄ	vedr	v	3
Δ	Ⲇ	ⲆⲆⲆ	ⲆⲆⲆ	glagol	g	4
Ε	Ⲉ	ⲈⲈⲈ	ⲈⲈⲈ	dobro	d	5
Ⲛ(τδ)	Ⲋ	ⲊⲊⲊ	ⲊⲊⲊ	est', yest'	e-ye	6
ⲛ(ξ:ⲟⲥ)	Ⲍ	ⲌⲌⲌ	ⲌⲌⲌ	zhivete	zh	7
Ζ	Ⲏ	ⲎⲎⲎ	ⲎⲎⲎ	zelo	z-dz	8
Η	Ⲑ	ⲐⲐⲐ	ⲐⲐⲐ	zemlya	z	9
Ι	Ⲓ	ⲒⲒⲒ	ⲒⲒⲒ	izhe (ije)	ī	10
Ⲛ(εϞ)	Ⲕ	ⲔⲔⲔ	ⲔⲔⲔ	i	i	20
ⲕ	Ⲗ	ⲖⲖⲖ	ⲖⲖⲖ	dew', yerr', dyerr'	d'-d <sup>h</sup> ē'-ē <sup>h</sup> y	30
Λ	Ⲙ	ⲘⲘⲘ	ⲘⲘⲘ	kako	k	40
Μ	Ⲛ	ⲚⲚⲚ	ⲚⲚⲚ	lyudy	l	50
Ν	Ⲟ	ⲞⲞⲞ	ⲞⲞⲞ	mystite	m	60
Ο	Ⲡ	ⲠⲠⲠ	ⲠⲠⲠ	nash	n	70
Π	Ⲣ	ⲢⲢⲢ	ⲢⲢⲢ	on	o	80
Ρ	Ⲥ	ⲤⲤⲤ	ⲤⲤⲤ	pokoy	p	90
Ϛ	Ⲧ	ⲦⲦⲦ	ⲦⲦⲦ	r'tsi	r	100
Ϝ	Ⲩ	ⲨⲨⲨ	ⲨⲨⲨ	slovo	s	200

Fig. 212—The Early Slavonic alphabets (I)

Uncial Greek	Cyrillic	Bulgarian Glagolitsa	Croat. Glagolitsa	Names of the letters	Phonetic value	Num.
Ⲛ(τδ)	Ⲛ	ⲚⲚⲚ	ⲚⲚⲚ	zvrdo	z	300
ⲟϞ	ⲟϞ	ⲟϞⲟϞ	ⲟϞⲟϞ	uk	u	400
ϕ	ϕ	ϕⲟϕ	ϕ	fert thita	f th	500 9
Χ	Χ	ΧⲟΧ	ΧⲟΧ	kher	kh	600
ω	ω	ωⲟω	ωϚ	ot	ō	700
ω(ⲟⲟ) Sem. sh <sup>h</sup>	ω	ωωω	ω	sha	sh	-
ψ(ⲟⲟⲥ) Sem. ts <sup>h</sup>	ψ	ψⲟψ	ψⲟψ	shta	sht	800
ϙ(ⲟⲟⲥ) Sem. ts <sup>h</sup>	ϙ	ϙⲟϙ	ϙⲟϙ	tsi	ts	900
ϙ(ⲟⲟⲥ) Sem. ts <sup>h</sup>	ϙ	ϙⲟϙ	ϙ	ch'ru	ch	1000
ϙ(ⲟⲟⲥ)	ϙ	ϙⲟϙ	ϙ	yer	ū-y	-
ϙ(ⲟⲟⲥ)	ϙ	ϙⲟϙ	ϙ	yery	y	-
ϙ(ⲟⲟⲥ)	ϙ	ϙⲟϙ	ϙ	yerek	ī	-
ϙ(ⲟⲟⲥ)	ϙ	ϙⲟϙ	ϙ	yat'-yel'	ya-ye	800
ⲟ	ⲟ	ⲟⲟⲟ	ⲟⲟⲟ	yu	yu	-
ⲟⲥ	ⲟⲥ	-	-	ye	ye	-
ⲁ(ⲟⲟⲥ)	ⲁ	ⲁⲁⲁ	ⲁⲁⲁ	e <sup>n</sup> s	eng	900
ⲁ(ⲟⲟⲥ)	ⲁ	ⲁⲁⲁ	ⲁⲁⲁ	o <sup>n</sup> s	ong	-
ⲁⲁ	ⲁⲁ	ⲁⲁⲁ	ⲁⲁⲁ	ye <sup>n</sup> s	yeng	-
ⲁⲁ	ⲁⲁ	ⲁⲁⲁ	ⲁⲁⲁ	yo <sup>n</sup> s	yong	-
ⲁⲁⲁ	ⲁⲁⲁ	-	-	ksi	ks	60
ⲁⲁⲁ	ⲁⲁⲁ	-	-	psi	ps	700
ⲁⲁⲁ	ⲁⲁⲁ	-	-	zhibo	y-v-i	-

Fig. 213—The Early Slavonic alphabets (II)

TABLE XX - Row xx: GLAGOLITIC

	xx0	xx1	xx2	xx3	xx4	xx5	xx6	xx7
0	ⱦ	Ⱨ	ⱨ	ⱦ	Ⱨ	ⱨ		
1	Ⱪ	ⱪ	Ⱬ	Ⱪ	ⱪ	Ⱬ		
2	ⱬ	Ɑ	Ɱ	ⱬ	Ɑ	Ɱ		
3	Ɐ	Ɒ	ⱱ	Ɐ	Ɒ	ⱱ		
4	Ⱳ	ⱳ	ⱴ	Ⱳ	ⱳ	ⱴ		
5	ⱷ	ⱸ	ⱹ	ⱷ	ⱸ	ⱹ		
6	ⱺ	ⱻ	ⱼ	ⱺ	ⱻ	ⱼ		
7	ⱽ	Ȿ	Ɀ	ⱽ	Ȿ	Ɀ		
8	Ⳁ	ⳁ	Ⳃ	Ⳁ	ⳁ	Ⳃ		
9	ⳃ	Ⳅ		ⳃ	Ⳅ			
A	ⳅ	Ⳇ		ⳅ	Ⳇ			
B	ⳇ	Ⳉ		ⳇ	Ⳉ			
C	ⳉ	Ⳋ		ⳉ	Ⳋ			
D	ⳋ	Ⳍ		ⳋ	Ⳍ			
E	ⳍ	Ⳏ		ⳍ	Ⳏ			
F	ⳏ	Ⳑ		ⳏ	Ⳑ			

G = 00  
P = 00

TABLE XX - Row xx: GLAGOLITIC

dec	hex	Name	dec	hex	Name
000	00	GLAGOLITIC CAPITAL LETTER AZ	089	59	(This position shall not be used)
001	01	GLAGOLITIC CAPITAL LETTER BUKY	090	5A	(This position shall not be used)
002	02	GLAGOLITIC CAPITAL LETTER VEDI	091	5B	(This position shall not be used)
003	03	GLAGOLITIC CAPITAL LETTER GLAGOLI	092	5C	(This position shall not be used)
004	04	GLAGOLITIC CAPITAL LETTER DOBRO	093	5D	(This position shall not be used)
005	05	GLAGOLITIC CAPITAL LETTER JEST	094	5E	(This position shall not be used)
006	06	GLAGOLITIC CAPITAL LETTER ZHIVETE	095	5F	(This position shall not be used)
007	07	GLAGOLITIC CAPITAL LETTER DZELO	096	60	(This position shall not be used)
008	08	GLAGOLITIC CAPITAL LETTER ZEMLJA	097	61	(This position shall not be used)
009	09	GLAGOLITIC CAPITAL LETTER IZHE	098	62	(This position shall not be used)
010	0A	GLAGOLITIC CAPITAL LETTER I	099	63	(This position shall not be used)
011	0B	GLAGOLITIC CAPITAL LETTER GERV	100	64	(This position shall not be used)
012	0C	GLAGOLITIC CAPITAL LETTER KAKO	101	65	(This position shall not be used)
013	0D	GLAGOLITIC CAPITAL LETTER LJUDIJE	102	66	(This position shall not be used)
014	0E	GLAGOLITIC CAPITAL LETTER MYSLITE	103	67	(This position shall not be used)
015	0F	GLAGOLITIC CAPITAL LETTER NASH	104	68	(This position shall not be used)
016	10	GLAGOLITIC CAPITAL LETTER ON	105	69	(This position shall not be used)
017	11	GLAGOLITIC CAPITAL LETTER POKOJ	106	6A	(This position shall not be used)
018	12	GLAGOLITIC CAPITAL LETTER RCI	107	6B	(This position shall not be used)
019	13	GLAGOLITIC CAPITAL LETTER SLOVO	108	6C	(This position shall not be used)
020	14	GLAGOLITIC CAPITAL LETTER TVRDO	109	6D	(This position shall not be used)
021	15	GLAGOLITIC CAPITAL LETTER UK	110	6E	(This position shall not be used)
022	16	GLAGOLITIC CAPITAL LETTER FRT	111	6F	(This position shall not be used)
023	17	GLAGOLITIC CAPITAL LETTER HER	112	70	(This position shall not be used)
024	18	GLAGOLITIC CAPITAL LETTER OT	113	71	(This position shall not be used)
025	19	GLAGOLITIC CAPITAL LETTER CI	114	72	(This position shall not be used)
026	1A	GLAGOLITIC CAPITAL LETTER CHRV	115	73	(This position shall not be used)
027	1B	GLAGOLITIC CAPITAL LETTER SHA	116	74	(This position shall not be used)
028	1C	GLAGOLITIC CAPITAL LETTER SHTA	117	75	(This position shall not be used)
029	1D	GLAGOLITIC CAPITAL LETTER JER	118	76	(This position shall not be used)
030	1E	GLAGOLITIC CAPITAL LETTER JERY	119	77	(This position shall not be used)
031	1F	GLAGOLITIC CAPITAL LETTER JERI	120	78	(This position shall not be used)
032	20	GLAGOLITIC CAPITAL LETTER JAT	121	79	(This position shall not be used)
033	21	GLAGOLITIC CAPITAL LETTER JO	122	7A	(This position shall not be used)
034	22	GLAGOLITIC CAPITAL LETTER JU	123	7B	(This position shall not be used)
035	23	GLAGOLITIC CAPITAL LETTER AS	124	7C	(This position shall not be used)
036	24	GLAGOLITIC CAPITAL LETTER ES	125	7D	(This position shall not be used)
037	25	GLAGOLITIC CAPITAL LETTER JAS	126	7E	(This position shall not be used)
038	26	GLAGOLITIC CAPITAL LETTER JES	127	7F	(This position shall not be used)
039	27	GLAGOLITIC CAPITAL LETTER FITA			
040	28	GLAGOLITIC CAPITAL LETTER IZHICA			
041	29	(This position shall not be used)			
042	2A	(This position shall not be used)			
043	2B	(This position shall not be used)			
044	2C	(This position shall not be used)			
045	2D	(This position shall not be used)			
046	2E	(This position shall not be used)			
047	2F	(This position shall not be used)			
048	30	GLAGOLITIC SMALL LETTER AZ			
049	31	GLAGOLITIC SMALL LETTER BUKY			
050	32	GLAGOLITIC SMALL LETTER VEDI			
051	33	GLAGOLITIC SMALL LETTER GLAGOLI			
052	34	GLAGOLITIC SMALL LETTER DOBRO			
053	35	GLAGOLITIC SMALL LETTER JEST			
054	36	GLAGOLITIC SMALL LETTER ZHIVETE			
055	37	GLAGOLITIC SMALL LETTER DZELO			
056	38	GLAGOLITIC SMALL LETTER ZEMLJA			
057	39	GLAGOLITIC SMALL LETTER IZHE			
058	3A	GLAGOLITIC SMALL LETTER I			
059	3B	GLAGOLITIC SMALL LETTER GERV			
060	3C	GLAGOLITIC SMALL LETTER KAKO			
061	3D	GLAGOLITIC SMALL LETTER LJUDIJE			
062	3E	GLAGOLITIC SMALL LETTER MYSLITE			
063	3F	GLAGOLITIC SMALL LETTER NASH			
064	40	GLAGOLITIC SMALL LETTER ON			
065	41	GLAGOLITIC SMALL LETTER POKOJ			
066	42	GLAGOLITIC SMALL LETTER RCI			
067	43	GLAGOLITIC SMALL LETTER SLOVO			
068	44	GLAGOLITIC SMALL LETTER TVRDO			
069	45	GLAGOLITIC SMALL LETTER UK			
070	46	GLAGOLITIC SMALL LETTER FRT			
071	47	GLAGOLITIC SMALL LETTER HER			
072	48	GLAGOLITIC SMALL LETTER OT			
073	49	GLAGOLITIC SMALL LETTER CI			
074	4A	GLAGOLITIC SMALL LETTER CHRV			
075	4B	GLAGOLITIC SMALL LETTER SHA			
076	4C	GLAGOLITIC SMALL LETTER SHTA			
077	4D	GLAGOLITIC SMALL LETTER JER			
078	4E	GLAGOLITIC SMALL LETTER JERY			
079	4F	GLAGOLITIC SMALL LETTER JERI			
080	50	GLAGOLITIC SMALL LETTER JAT			
081	51	GLAGOLITIC SMALL LETTER JO			
082	52	GLAGOLITIC SMALL LETTER JU			
083	53	GLAGOLITIC SMALL LETTER AS			
084	54	GLAGOLITIC SMALL LETTER ES			
085	55	GLAGOLITIC SMALL LETTER JAS			
086	56	GLAGOLITIC SMALL LETTER JES			
087	57	GLAGOLITIC SMALL LETTER FITA			
088	58	GLAGOLITIC SMALL LETTER IZHICA			