# Revised proposal to encode Tamil fractions and symbols

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# §1. Background

This document replaces my previous document L2/12-231, which proposed 62 characters for encoding in the Tamil block and a new Tamil Supplement block. Now 55 characters are proposed, as per the recommendations of the prelim review committee L2/13-028 §17 (p 8) which were later approved at the UTC meeting last month. The changes are:

1. The following characters with identical glyphic form were proposed to be disunified based on difference in GC. Since this is found insufficient grounds for the same, they are now unified:

Glyph	Existing character		Proposed character		
Ц	OBAA LETTER PA	Lo	11FC8 Fraction One-Twentieth	No	
ഖ	0BB5 Letter VA	Lo	11FCF Fraction One-Quarter	No	
回	0B99 Letter NGA	Lo	11FDA Sign Kuruni	So	
த	0BA4 LETTER TA	Lo	11FDD Sign Tuuni	So	
ଗୀ	OBB3 LETTER LLA	Lo	11FDE SIGN KALAM	So	
த	-	-	11FD1 Fraction Three-Quarters	No	
			11FD6 Sign Uzhakku	So	

- 2. The gaps resulting from the unification of these six pairs are fixed and annotations are added to the unified characters to explain the additional usage.
- 3. Since it is found desirable to have more evidence for the proposed OBFB TAMIL RINGGIT SIGN, it is withdrawn from this proposal and may be separately proposed.
- 4. In fixing this gap, Tamil Current Sign has been moved to OBDF and Tamil Traditional Number/Credit Signs have been moved to OBFB and OBFC closer to their counterparts at OBFA/OBF7. Tamil Punctuation End of Text has been moved to 11FFF.
- 5. The informative aliases for Tamil Spent Sign and Tamil Total Sign (now at OBFE and OBFF) are slightly changed, and the two glyph changes (originally requested in L2/12-106 §2; see also L2/12-231 §5.3) are effected.

Note that this revised document only provides the bare minimum technical material for the proposal. Detailed discussion may be found in the previous proposal L2/12-231.

Since the UnicodeData.txt and NamesList.txt updates are non-trivial, I include them as text file attachments to this PDF for convenience of the editors.

## §2. On the font for the code charts

I would also like to repeat my request in L2/12-231 §9.5 (p 62) to use the Lohit Tamil font which is freely publicly available under the Open Font Licence for the official code charts of the Tamil and Tamil Supplement blocks. This font is of good aesthetic quality, and my newly designed glyphs are based on the existing Tamil glyphs in it. While the official homepage of this font is <a href="https://fedorahosted.org/lohit/">https://fedorahosted.org/lohit/</a>, the download available from there does not yet contain these glyphs as they are not encoded as yet. A derivative version available from <a href="http://pravins.fedorapeople.org/tamil-fraction-symbol-proposal-fonts/">http://pravins.fedorapeople.org/tamil-fraction-symbol-proposal-fonts/</a> contains my new glyphs, and these will be added to the upstream font pending Unicode publication of these characters (see <a href="https://bugzilla.redhat.com/show\_bug.cgi?id=839303">https://bugzilla.redhat.com/show\_bug.cgi?id=839303</a>).

# §3. Unicode Character Properties etc

(These may also be found as attachments to this PDF.)

## §3.1. Additions to UnicodeData.txt

```
OBDF; TAMIL CURRENT SIGN; So; 0; ON;;;; N;;;;;
OBFB; TAMIL TRADITIONAL NUMBER SIGN; So; 0; ON;;;;; N;;;;
OBFC; TAMIL TRADITIONAL CREDIT SIGN; So; 0; ON;;;;; N;;;;
OBFD; TAMIL AND ODD SIGN; So; O; ON; ; ; ; ; N; ; ; ;
OBFE; TAMIL SPENT SIGN; So; 0; ON;;;; N;;;; OBFF; TAMIL TOTAL SIGN; So; 0; ON;;;; N;;;;
11FC0; TAMIL FRACTION ONE THREE-HUNDRED-AND-TWENTIETH; No; 0; L;;;; 1/320; N;;;;;
11FC1; TAMIL FRACTION ONE ONE-HUNDRED-AND-SIXTIETH; No; 0; L;;;; 1/160; N;;;;;
11FC2; TAMIL FRACTION ONE EIGHTIETH; No; 0; L;;;; 1/80; N;;;;
11FC3; TAMIL FRACTION ONE SIXTY-FOURTH; No; 0; L;;;; 1/64; N;;;;;
11FC4; TAMIL FRACTION ONE FORTIETH; No;0;L;;;;1/40;N;;;;;
11FC5; TAMIL FRACTION ONE THIRTY-SECOND; No;0;L;;;;1/32;N;;;;
11FC6; TAMIL FRACTION THREE EIGHTIETHS; No; 0; L;;;; 3/80; N;;;;;
11FC7; TAMIL FRACTION THREE SIXTY-FOURTHS; No; 0; L;;;; 3/64; N;;;;
11FC8; TAMIL FRACTION ONE SIXTEENTH; No; 0; L;;;; 1/16; N;;;;; 11FC9; TAMIL FRACTION ONE TENTH; No; 0; L;;;; 1/10; N;;;;
11FCA; TAMIL FRACTION ONE EIGHTH; No; 0; L;;;; 1/8; N;;
11FCB; TAMIL FRACTION THREE TWENTIETHS; No;0;L;;;;3/20;N;;;;
11FCC; TAMIL FRACTION THREE SIXTEENTHS; No;0;L;;;;3/16;N;;;;
11FCD; TAMIL FRACTION ONE FIFTH; No; 0; L;;;; 1/5; N;;;;
11FCE; TAMIL FRACTION ONE HALF; No; 0; L;;; 1/2; N;;;; 11FCF; TAMIL FRACTION THREE QUARTERS; No; 0; L;;;; 3/4; N;;;;
11FD0; TAMIL FRACTION DOWNSCALING FACTOR KIIZH; No;0;L;;;;1/320;N;;;;;
11FD1; TAMIL SIGN NEL; So;0;0N;;;;N;;;;
11FD2; TAMIL SIGN SUVADU; So;0;0N;;;;N;;;;
11FD3; TAMIL SIGN AAZHAAKKU; So; 0; ON; ;;;; N;;;;;
11FD4; TAMIL SIGN URI; So; 0; ON; ;; ;; N; ;; ;;
11FD5; TAMIL SIGN MUUVUZHAKKU; So; 0; ON;;;;; N;;;;;
```

```
11FD6; TAMIL SIGN PADAKKU; So; 0; ON; ;; ;; N; ;; ;;
11FD7; TAMIL SIGN MUKKURUNI; So; 0; ON; ;;;; N;;;;;
11FD8; TAMIL SIGN PAISAA; Sc;0;ET;;;;N;;;;
11FD9; TAMIL SIGN ANAA; Sc;0;ET;;;;N;;;;
11FDA; TAMIL SIGN KAASU; Sc; 0; ET;;;; N;;;;;
11FDB; TAMIL SIGN PANAM; Sc; 0; ET;;;; N;;;;;
11FDC; TAMIL SIGN PON; Sc; 0; ET;;;; N;;;;
11FDD; TAMIL SIGN VARAAGAN; Sc; 0; ET;;;;; N;;;;
11FDE; TAMIL SIGN BAARAM; So; 0; ON;;;;; N;;;;;
11FDF; TAMIL SIGN GEJAM; So; 0; ON; ; ; ; ; N; ; ; ;
11FE0; TAMIL SIGN KUZHI; So; 0; ON; ; ; ; ; N; ; ; ;
11FE1; TAMIL SIGN VELI; So; 0; ON;;;;; N;;;;
11FE2; TAMIL WET CULTIVATION SIGN; So; 0; ON; ; ; ; ; N; ; ; ;
11FE3; TAMIL DRY CULTIVATION SIGN; So; 0; ON;;;;; N;;;;;
11FE4; TAMIL LAND SIGN; So; 0; ON; ; ; ; ; N; ; ; ;
11FE5; TAMIL SALT PAN SIGN; So; 0; ON; ; ; ; ; N; ; ; ;
11FE6; TAMIL CHARGE SIGN; So; 0; ON;;;;; N;;;;
11FE7; TAMIL FIRST SIGN; So; 0; ON; ;; ;; N; ;; ;;
11FE8; TAMIL SIGN MUDALIYA; So; 0; ON; ;; ;; N; ;; ;;
11FE9; TAMIL SIGN VAGAIYARAA; So; 0; ON; ;; ;; N; ;; ;;
11FEA; TAMIL SIGN CIRANJIIVI; So; 0; ON; ;; ;; N; ;; ;;
11FEB; TAMIL SIGN PILLAI; So; 0; ON;;;;; N;;;;
11FEC; TAMIL SIGN RAAJA; So; 0; ON; ;; ;; N; ;; ;
11FED; TAMIL ABBREVIATION KKU; Lo; 0; L;;;;; N;;;;
11FEE; TAMIL ABBREVIATION YUM; Lo; 0; L;;;;; N;;;;
11FEF; TAMIL ABBREVIATION VUM; Lo; 0; L;;;;; N;;;;
11FFF; TAMIL PUNCTUATION END OF TEXT; Po; 0; L;;;;; N;;;;
```

## §3.2. Changes to NamesList.txt (BMP)

```
@@ -24,4 +24,6 @@
 0B95
       TAMIL LETTER KA
 0B99
       TAMIL LETTER NGA
        * also denotes the measure kuruni/marakkaal
       x 11fd5 tamil sign muuvuzhakku
 0B9A
       TAMIL LETTER CA
0B9C
       TAMIL LETTER JA
@ -30,7 +32,11 @
       TAMIL LETTER NNA
0RA3
 0BA4
       TAMIL LETTER TA
       * also denotes the measure tuuni
       x 11fd7 tamil sign mukkuruni
0BA8
       TAMIL LETTER NA
 0BA9
       TAMIL LETTER NNNA
       TAMIL LETTER PA
0BAA
        * also denotes the fraction one twentieth
0BAE
       TAMIL LETTER MA
 0BAF
       TAMIL LETTER YA
@@ -39,6 +45,10 @@
 0RR2
       TAMIL LETTER LA
 0BB3
       TAMIL LETTER LLA
       * also denotes the measure kalam
       x 11fd7 tamil sign mukkuruni
0BB4
       TAMIL LETTER LLLA
0BB5
       TAMIL LETTER VA
       * also denotes the fraction one quarter
       = kaal
 0BB6
       TAMIL LETTER SHA
       TAMIL LETTER SSA
 0BB7
@@ -72,4 +82,7 @@
 0BD0
       TAMIL OM
       TAMIL AU LENGTH MARK
0BD7
               Tamil clerical symbol
+@
+0BDF
       TAMIL CURRENT SIGN
       = naaladu
@
               For viram punctuation, use the generic Indic 0964 and 0965.
@+
```

```
@@ -90,24 +103,58 @@
0BEF
       TAMIL DIGIT NINE
               Tamil numerics
a
+0+
       Tamil fractions are encoded in the Tamil Supplement block starting at 11FC0
0BF0
       TAMIL NUMBER TEN
0BF1
       TAMIL NUMBER ONE HUNDRED
       TAMIL NUMBER ONE THOUSAND
0BF2
               Tamil symbols
-@
               Tamil calendrical symbols
+@
0BF3
       TAMIL DAY SIGN
       = naal
       = naazhi/padi
       * denotes a measure of grain that equals 2 uri or 4 uzhakku
       x (tamil sign uri - 11FD4)
       = pillaiyaar suzhi
       * denotes auspiciousness
0BF4
       TAMIL MONTH SIGN
       = maatham
 0BF5
       TAMIL YEAR SIGN
       = varudam
               Tamil clerical symbols
 0BF6
       TAMIL DEBIT SIGN
       = patru
0BF7
       TAMIL CREDIT SIGN
       = varavu
       = eduppu
       * denotes incoming cash which is set aside for unknown expenses
       * sometimes used as the credit sign
       * the traditional credit sign is different
       x (tamil traditional credit sign - OBFC)
0BF8
       TAMIL AS ABOVE SIGN
       = merpadi
-@
               Currency symbol
+@
               Tamil currency symbol
0BF9
       TAMIL RUPEE SIGN
       = rupai
-@
               Tamil symbol
               Additional Tamil symbols
+@
0BFA
       TAMIL NUMBER SIGN
       = niluvai
       * denotes balance
       * sometimes used as the number sign
+
       {f *} the traditional number sign is different
       x (tamil traditional number sign - OBFB)
       TAMIL TRADITIONAL NUMBER SIGN
+0BFB
       = enn
       * this is the traditional number sign
       x (tamil number sign - OBFA)
+0BFC
       TAMIL TRADITIONAL CREDIT SIGN
       = varavu
       * this is the traditional credit sign
       x (tamil credit sign - 0BF7)
+0BFD
       TAMIL AND ODD SIGN
       = silvaanam/sillarai
       * not to be confused with the sign for "long-lived"
       x (tamil sign ciranjiivi - 11FEA)
       TAMIL SPENT SIGN
+0BFE
       = poka
       * not to be confused with the abbreviation for "pillai"
       x (tamil sign pillai - 11FEB)
       TAMIL TOTAL SIGN
+0BFF
       = aaka
       More symbols are encoded in the Tamil Supplement block 11FC0-11FFF starting at 11FD0
+0+
```

## §3.3. Additions to NamesList.txt (SMP)

```
11FFF
       11FC0 Tamil Supplement
@@
       Fractions
11FC0
       TAMIL FRACTION ONE THREE-HUNDRED-AND-TWENTIETH
       = mundiri
11FC1
       TAMIL FRACTION ONE ONE-HUNDRED-AND-SIXTIETH
       = araikkaani
       TAMIL FRACTION ONE EIGHTIETH
11FC2
        = kaani
       TAMIL FRACTION ONE SIXTY-FOURTH
11FC3
       = kaalviisam
11FC4
       TAMIL FRACTION ONE FORTIETH
       = araimaa
       TAMIL FRACTION ONE THIRTY-SECOND
11FC5
        = araiviisam
11FC6
       TAMIL FRACTION THREE EIGHTIETHS
       = mukkaani
       TAMIL FRACTION THREE SIXTY-FOURTHS
11FC7
       = mukkaalviisam
       * for one twentieth "maa" use OBAA
       x Obaa tamil letter pa
11FC8
       TAMIL FRACTION ONE SIXTEENTH
       = viisam/maakaani
       TAMIL FRACTION ONE TENTH
11FC9
       = irumaa
11FCA
       TAMIL FRACTION ONE EIGHTH
       = araikkaal
11FCB
       TAMIL FRACTION THREE TWENTIETHS
       = mummaa
       TAMIL FRACTION THREE SIXTEENTHS
11FCC
       = muuviisam/mummaamukkaani
11FCD
       TAMIL FRACTION ONE FIFTH
       = naalumaa
       * for one quarter "kaal" use 0BB5
       x 0bb5 tamil letter va
11FCE
       TAMIL FRACTION ONE HALF
        = arai
11FCF
       TAMIL FRACTION THREE QUARTERS
       = mukkaal
11FD0
       TAMIL FRACTION DOWNSCALING FACTOR KIIZH
       * when prefixed to a fraction, reduces its value by a factor of 1/320
       Measures of grain
11FD1
       TAMIL SIGN NEL
       * one grain of paddy TAMIL SIGN SUVADU
11FD2
        * equals 360 nel
11FD3
       TAMIL SIGN AAZHAAKKU
       * equals 5 suvadu
       * for the measure uzhakku which equals 2 aazhaakku, use 11FCF
       x 11fcf tamil fraction three quarters
       TAMIL SIGN URI
11FD4
        * equals 2 uzhakku
11FD5
       TAMIL SIGN MUUVUZHAKKU
       * equals 3 uzhakku
       * for the measure naazhi/padi which equals 2 uri or 4 uzhakku, use OBF3
       x (tamil day sign - 0BF3)
        * for the measure kuruni/marakkaal which equals 8 naazhi/padi, use 0B99
       x (tamil letter nga - 0B99)
11FD6
       TAMIL SIGN PADAKKU
       * equals 2 kuruni/marakkaal
11FD7
       TAMIL SIGN MUKKURUNI
        * equals 3 kuruni
       * for the measure tuuni which equals 2 padakku or 4 kuruni, use 0BA4
       x (tamil letter ta - 0BA4)
       ^{st} for the measure kalam which equals 3 tuuni, use 0BB3
       x (tamil letter lla - 0BB3)
       Old currency symbols
11FD8
       TAMIL SIGN PAISAA
       * old paisa comprises 3 pai and equals 1/64 of a rupee
       * new or naya paisa equals 1/100 of a rupee
```

```
11FD9
       TAMIL SIGN ANAA
        * equals 4 old paisa
11FDA
       TAMIL SIGN KAASU
        * alternate old currency
       TAMIL SIGN PANAM
11FDB
        * equals 80 kaasu
11FDC
       TAMIL SIGN PON
        * equals 10 panam
11FDD
       TAMIL SIGN VARAAGAN
        * equals 42 panam
       * equals 3\frac{1}{2} rupee, 3\frac{3}{4} as per some Symbols of weight, length and area
11FDE
       TAMIL SIGN BAARAM
        * approximately equals 500 pounds
       TAMIL SIGN GEJAM
11FDF
        * approximately equals 3 feet
11FE0
       TAMIL SIGN KUZHI
        * equals 16 square gejam
11FE1
       TAMIL SIGN VELI
        * equals 2000 kuzhi
       Agricultural symbols
11FE2
       TAMIL WET CULTIVATION SIGN
       = nansev
       TAMIL DRY CULTIVATION SIGN
11FE3
       = punsey
       TAMIL LAND SIGN
11FE4
        = nilam
       TAMIL SALT PAN SIGN
11FE5
       = alam
       Other symbols and abbreviations
11FE6
       TAMIL CHARGE SIGN
       = vasam
        * possession
       TAMIL FIRST SIGN
11FE7
       = mudal
11FE8
       TAMIL SIGN MUDALIYA
       = et cetera
       * indicates items in a series
11FE9
       TAMIL SIGN VAGAIYARAA
       = et cetera
       * indicates items of a family or kind
       TAMIL SIGN CIRANJIIVI
11FEA
       * a polite title for a young person
       * not to be confused with the sign for "and odd"
       x (tamil and odd sign - OBFD)
11FEB
       TAMIL SIGN PILLAI
       * not to be confused with the sign for "spent"
       x (tamil spent sign - 0BFE)
11FEC
       TAMIL SIGN RAAJA
        * in the phrase mahaa raaja raaja shrii
       * OBF1 is often used as a substitute
       x (tamil number one hundred - 0BF1)
       Abbreviations of word-endings
11FED
       TAMIL ABBREVIATION KKU
        * used especially with numerals for the dative suffix
11FEE
       TAMIL ABBREVIATION YUM
        * and
11FEF
       TAMIL ABBREVIATION VUM
        * and
       Punctuation
11FFF
       TAMIL PUNCTUATION END OF TEXT
       x (sinhala punctuation kunddaliya - 0DF4)
```

# §4. Code Charts

	0B8	0B9	0BA	0BB	0BC	0BD	0BE	0BF
0		83		Ţ	°	(E)		Œ
1				ഉ	ా			m
2		S		ல	್			கூ
3	0 0	(S)	ண	ள				െ
4		ஒள	த	ħ				மீ
5	ৰ	க		ഖ				<b>௵</b>
6	क्			IJ	െ		0	Л
7	<b>®</b>			ஷ	ෙ	ௗ	ይ	െ
8	ι÷		ਿੱਚ	സ	ത		ഉ	ஷ
9	ရ	围	ன	ள			匝	(IP)
A	<u>ഉണ</u>	Ф	Г		ொ		色	हि
В					ோ		(H)	l⊮
С		<u>S</u>			ௌ		퓬	ചൂ
D					ं		ଗ	£g-
E	ଗ	<u></u>	Ф	ா			P P	பீ
F	<b></b>	L	Ш	ി		圖	கூ	<b>J</b>

# Tamil Supplement

	11FC	11FD	11FE	11FF
0	ഞ്ജ	<del>е</del>	குட	
1	ਦੇ	ஐ	್ಲ	
2	ව	ளூ	ГБ	
3	<sub>ನ್ನಿಲ್</sub>	ளு	ான்	
4	æч	ണി	நி	
5	짼	rep J	<b>9</b> 1	
6	சூ	வது	வூ	
7	悉	G <sub>II</sub>	ழ	
8	S	L&F	(B)	
9	83	<b>J</b>	മൂ	
A	வூ	ሔ	et et	
В	செ	4	ರ್ಷ	
С	IFO_	G	M ©	
D	Э	െ	(1)	
E	ව	9	யி	
F	<b>e</b>	கி	ഖ്വ	ഫെ

# §5. Official Proposal Summary Form

#### (Based on N3902-F)

#### A. Administrative

Title

#### Revised proposal to encode Tamil fractions and symbols

2. Requester's name

#### Shriramana Sharma

3. Requester type (Member body/Liaison/Individual contribution)

#### **Individual Contribution**

4. Submission date

#### 2013-Mar-05

- 5. Requester's reference (if applicable)
- 6. Choose one of the following: This is a complete proposal (or) More information will be provided later **This is a complete proposal.**

### B. Technical - General

- 1. Choose one of the following:
- 1a. This proposal is for a new script (set of characters), Proposed name of script

#### Nο

1b. The proposal is for addition of character(s) to an existing block, Name of the existing block

These characters are additions to the Tamil encoding, but they cannot all be encoded in the existing BMP Tamil block due to lack of space. As a result, a new Tamil Supplement block is requested.

2. Number of characters in proposal

#### 55 (fifty five)

3. Proposed category

#### Category B1, specialized small

4. Is a repertoire including character names provided?

#### Yes

4a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document?

4b. Are the character shapes attached in a legible form suitable for review?

#### Yes

5. Fonts related:

a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

## Shriramana Sharma

b. Identify the party granting a license for use of the font by the editors (include address, e-mail etc.)

Shriramana Sharma and other contributors to the Lohit Tamil font, under derivative rights granted by the OFL. See <a href="https://fedorahosted.org/lohit/">https://fedorahosted.org/lohit/</a>.

6a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided?

#### See previous proposal L2/12-231.

6b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached?

## See previous proposal L2/12-231.

7. Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)?

#### See previous proposal L2/12-231.

8. Submitters are invited to provide any additional information about properties of the proposed character(s) or script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

## See previous proposal L2/12-231.

#### C. Technical – Justification

1. Has this proposal for addition of character(s) been submitted before? If YES, explain.

#### This document replaces L2/12-231 as per recommendations from the 2013-Feb UTC meeting.

2a. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?

Yes

2b. If YES, with whom?

G Balachandran of ICTA Sri Lanka, various Tamil scholars participating in the C-Tamil mailing list (ctamil-at-services.cnrs.fr), some members of INFITT WG02. See §1 of L2/12-231.

2c. If YES, available relevant documents

The matter was largely discussed in person or via email.

3. Information on the user community for the proposed characters (for example: size, demographics, information technology use, or publishing use) is included?

Those who desire to store as digital text old Tamil manuscripts involving these characters, and those who may desire to revive the use of at least some of these characters

4a. The context of use for the proposed characters (type of use; common or rare)

#### Rare

4b. Reference

See detailed proposal.

5a. Are the proposed characters in current use by the user community?

Scholars who work with manuscripts will use these characters.

5b. If YES, where?

Largely in research institutions around the world involved with Tamil and some Grantha manuscripts.

6a. After giving due considerations to the principles in the P&P document must the proposed characters be entirely in the BMP?

No

6b. If YES, is a rationale provided?

6c. If YES, reference

7. Should the proposed characters be kept together in a contiguous range (rather than being scattered)?

Yes

8a. Can any of the proposed characters be considered a presentation form of an existing character or character sequence?

No.

8b. If YES, is a rationale for its inclusion provided?

8c. If YES, reference

9a. Can any of the proposed characters be encoded using a composed character sequence of either existing characters or other proposed characters?

No

9b. If YES, is a rationale for its inclusion provided?

9c. If YES, reference

10a. Can any of the proposed character(s) be considered to be similar (in appearance or function) to an existing character?

Some characters are similar (but not identical) to existing Tamil/Grantha letters or ligatures thereof.

10b. If YES, is a rationale for its inclusion provided?

Yes

10c. If YES, reference

They have a consistently distinct shape and meaning.

11a. Does the proposal include use of combining characters and/or use of composite sequences?

No

11b. If YES, is a rationale for such use provided?

11c. If YES, reference

11d. Is a list of composite sequences and their corresponding glyph images (graphic symbols) provided?

12a. Does the proposal contain characters with any special properties such as control function or similar semantics?

No.

12b. If YES, describe in detail (include attachment if necessary)

13a. Does the proposal contain any Ideographic compatibility character(s)?

No

13b. If YES, is the equivalent corresponding unified ideographic character(s) identified?

13c. If YES, reference:

-0-0-0-