

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

**Doc Type: Working Group Document****Title: Preliminary proposal for encoding the Afaka script in the SMP of the UCS****Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)****Author: Michael Everson****Status: Liaison Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Date: 2010-12-21**

**1. Introduction.** The Afaka script was devised by Afáka Atumisi in 1910 to write Ndyuka, an English creole spoken by 15,500 in Surinam and 6,000 in French Guiana (according to the Ethnologue). Afaka is a syllabary though at present it does not represent the phonemic inventory of Ndyuka perfectly. Syllable-final *-m* and *-n* are unmarked (𐀮 *ko*, *kom*; 𐀭 *e*, *en*), and voiced stops and prenasalized stops are written with the same character. Long vowels, on the other hand, are written by adding a vowel letter (𐀮𐀯 *ko*). Some characters indicate more than one sound: 𐀮<sub>PA</sub> is used for *pa* and *ba*. The script appears to be unrelated to any other script, its glyphs having been developed on the principle of the acrophonic rebus.

𐀮	GI	<i>gi</i> ‘give’ (two hands)
𐀯	WE	<i>wi</i> ‘we’ (two hands)
𐀰	MI	<i>mi</i> ‘me’ (glyph reversed from YU)
𐀱	YU	<i>yu</i> ‘you’ (glyph reversed from MI)
𐀲	KO	<i>kom</i> ‘come’ (glyph reversed from GO)
𐀳	GO	<i>go</i> ‘go’ (glyph reversed from KO)
𐀴	TU	<i>tu</i> ‘two’ (two strokes)
𐀵	FO	<i>fo</i> ‘four’ (four strokes)
+	NE	<i>nem</i> ‘name’ (a cross used in signing one’s name)
⊙	BE	<i>a abi beli</i> ‘she has belly; she’s pregnant’ (the dot is a foetus)
𐀶	U	<i>uku</i> ‘pair of hooks’ (character used for both <i>u</i> and <i>ku</i> )
𐀷	KA	<i>kaka</i> ‘faeces’
𐀸	PI	<i>pisi</i> ‘urine’

One may observe a similarity between Afaka and Latin letters 𐀮 *a*, 𐀯 *o*, 𐀭 *e* (from ‘*em*’), though this may be accidental.

**2. Processing.** Afaka is written from left to right horizontally. Manuscript texts usually have U+0020 SPACE between words, and sentences are ended with a long vertical bar, though this sometimes also functions as a semi-colon as well as a full stop; Kahn 1931 identified it as a “period”.

**3. Glyphs.** A certain amount of variation in shape is found in the manuscripts; the font used in this proposal was developed by Jason Glavy on the basis of these. No ligation or other shaping behaviour is found in Afaka.

**4. Sorting.** Three sorting orders are known. Two of these are very similar; the third is ordered according to the value of Latin transliterations. The order of the characters in the code chart reflects the first of these orders, which is “traditional”.

Ƶ WE < Ɔ SO < Ɔ PU < Ƶ FO < Ƶ TU < Ƶ LI < Ɔ FE <  
 Ɔ DYO < Ɔ NO < Ɔ PO < Ɔ PE < Ɔ DA < Ɔ BI < Ɔ BO < Ɔ FA < Ɔ DE <  
 Ɔ KO < Ɔ KWA < Ɔ GO < Ɔ GI < Ɔ I < Ɔ TO < Ɔ LO < Ɔ GE < Ɔ LA < Ɔ PI < Ɔ NE <  
 Ɔ WA < Ɔ TYA < Ɔ O < Ɔ DI < Ɔ A < Ɔ TI < Ɔ YA < Ɔ FI < Ɔ ME < Ɔ NA < Ɔ NYA <  
 Ɔ MO < Ɔ KE < Ɔ U < Ɔ TA < Ɔ KI < Ɔ NI < Ɔ SI < Ɔ YU < Ɔ MI <  
 Ɔ MA < Ɔ SA < Ɔ GA < Ɔ DO < Ɔ TE < Ɔ PA < Ɔ KA < Ɔ BE < Ɔ YE

The second order, attributed to Afaka, moves a few characters to the front of the sequence:

Ɔ A < Ɔ MO < Ɔ KE < Ɔ U < Ɔ TA < Ɔ KI < Ɔ NI < Ɔ SI < Ɔ YU < Ɔ MI <  
 Ƶ WE < Ɔ SO < Ɔ PU < Ƶ FO < Ƶ TU < Ƶ LI < Ɔ FE <  
 Ɔ DYO < Ɔ NO < Ɔ PO < Ɔ PE < Ɔ DA < Ɔ BI < Ɔ BO < Ɔ FA < Ɔ DE <  
 Ɔ KO < Ɔ KWA < Ɔ GO < Ɔ GI < Ɔ I < Ɔ TO < Ɔ LO < Ɔ GE < Ɔ LA < Ɔ PI < Ɔ NE <  
 Ɔ WA < Ɔ TYA < Ɔ O < Ɔ DI < Ɔ TI < Ɔ YA < Ɔ FI < Ɔ ME < Ɔ NA < Ɔ NYA <  
 Ɔ MA < Ɔ SA < Ɔ GA < Ɔ DO < Ɔ TE < Ɔ PA < Ɔ KA < Ɔ BE < Ɔ YE

Both orders seems to reflect the origins of some of the characters, which are given in the order in pairs:

Ƶ FO ‘four’ ... Ƶ TU ‘two’  
 Ɔ KO ‘come’ ... Ɔ KWA ... Ɔ GO ‘go’  
 Ɔ O ... Ɔ DI odi ‘hello’  
 Ɔ A ... Ɔ TI ati ‘heart’

Both orders share a phrase at the end of the sequence:

Ɔ Ɔ Ɔ Ɔ Ɔ Masa Gado te baka ben ye ‘Lord God, that the white man heard’

The characters fronted in the second order also make a phrase:

Ɔ Ɔ Ɔ Ɔ A make un taki ‘it gives us speech’

At present there is no user-specified reason to prefer the first or the second order.

**5. Character names.** The names used for the characters here are based on those given in Dubelaar and Pakosie 1999.

**6. Numerals.** European digits are used.

**7. Unicode Character Properties**

- 16C80;AFKA LETTER WE;Lo;0;L;;;;;N;;;;;
- 16C81;AFKA LETTER SO;Lo;0;L;;;;;N;;;;;
- 16C82;AFKA LETTER PU;Lo;0;L;;;;;N;;;;;
- 16C83;AFKA LETTER FO;Lo;0;L;;;;;N;;;;;
- 16C84;AFKA LETTER TU;Lo;0;L;;;;;N;;;;;
- 16C85;AFKA LETTER LI;Lo;0;L;;;;;N;;;;;
- 16C86;AFKA LETTER FE;Lo;0;L;;;;;N;;;;;
- 16C87;AFKA LETTER DYO;Lo;0;L;;;;;N;;;;;
- 16C88;AFKA LETTER NO;Lo;0;L;;;;;N;;;;;
- 16C89;AFKA LETTER PO;Lo;0;L;;;;;N;;;;;
- 16C8A;AFKA LETTER PE;Lo;0;L;;;;;N;;;;;
- 16C8B;AFKA LETTER DA;Lo;0;L;;;;;N;;;;;

16C8C;AFAKA LETTER BI;Lo;0;L;;;;;N;;;;;  
 16C8D;AFAKA LETTER BO;Lo;0;L;;;;;N;;;;;  
 16C8E;AFAKA LETTER FA;Lo;0;L;;;;;N;;;;;  
 16C8F;AFAKA LETTER DE;Lo;0;L;;;;;N;;;;;  
 16C90;AFAKA LETTER KO;Lo;0;L;;;;;N;;;;;  
 16C91;AFAKA LETTER KWA;Lo;0;L;;;;;N;;;;;  
 16C92;AFAKA LETTER GO;Lo;0;L;;;;;N;;;;;  
 16C93;AFAKA LETTER GI;Lo;0;L;;;;;N;;;;;  
 16C94;AFAKA LETTER I;Lo;0;L;;;;;N;;;;;  
 16C95;AFAKA LETTER TO;Lo;0;L;;;;;N;;;;;  
 16C96;AFAKA LETTER LO;Lo;0;L;;;;;N;;;;;  
 16C97;AFAKA LETTER GE;Lo;0;L;;;;;N;;;;;  
 16C98;AFAKA LETTER LA;Lo;0;L;;;;;N;;;;;  
 16C99;AFAKA LETTER PI;Lo;0;L;;;;;N;;;;;  
 16C9A;AFAKA LETTER NE;Lo;0;L;;;;;N;;;;;  
 16C9B;AFAKA LETTER WA;Lo;0;L;;;;;N;;;;;  
 16C9C;AFAKA LETTER TYA;Lo;0;L;;;;;N;;;;;  
 16C9D;AFAKA LETTER O;Lo;0;L;;;;;N;;;;;  
 16C9E;AFAKA LETTER DI;Lo;0;L;;;;;N;;;;;  
 16C9F;AFAKA LETTER A;Lo;0;L;;;;;N;;;;;  
 16CA0;AFAKA LETTER TI;Lo;0;L;;;;;N;;;;;  
 16CA1;AFAKA LETTER YA;Lo;0;L;;;;;N;;;;;  
 16CA2;AFAKA LETTER FI;Lo;0;L;;;;;N;;;;;  
 16CA3;AFAKA LETTER E;Lo;0;L;;;;;N;;;;;  
 16CA4;AFAKA LETTER NA;Lo;0;L;;;;;N;;;;;  
 16CA5;AFAKA LETTER NYA;Lo;0;L;;;;;N;;;;;  
 16CA6;AFAKA LETTER MO;Lo;0;L;;;;;N;;;;;  
 16CA7;AFAKA LETTER KE;Lo;0;L;;;;;N;;;;;  
 16CA8;AFAKA LETTER U;Lo;0;L;;;;;N;;;;;  
 16CA9;AFAKA LETTER TA;Lo;0;L;;;;;N;;;;;  
 16CAA;AFAKA LETTER KI;Lo;0;L;;;;;N;;;;;  
 16CAB;AFAKA LETTER NI;Lo;0;L;;;;;N;;;;;  
 16CAC;AFAKA LETTER SI;Lo;0;L;;;;;N;;;;;  
 16CAD;AFAKA LETTER YU;Lo;0;L;;;;;N;;;;;  
 16CAE;AFAKA LETTER MI;Lo;0;L;;;;;N;;;;;  
 16CAF;AFAKA LETTER MA;Lo;0;L;;;;;N;;;;;  
 16CB0;AFAKA LETTER SA;Lo;0;L;;;;;N;;;;;  
 16CB1;AFAKA LETTER GA;Lo;0;L;;;;;N;;;;;  
 16CB2;AFAKA LETTER DO;Lo;0;L;;;;;N;;;;;  
 16CB3;AFAKA LETTER TE;Lo;0;L;;;;;N;;;;;  
 16CB4;AFAKA LETTER PA;Lo;0;L;;;;;N;;;;;  
 16CB5;AFAKA LETTER KA;Lo;0;L;;;;;N;;;;;  
 16CB6;AFAKA LETTER BE;Lo;0;L;;;;;N;;;;;  
 16CB7;AFAKA LETTER YE;Lo;0;L;;;;;N;;;;;  
 16CBD;AFAKA COMET;So;0;ON;;;;;N;;;;;  
 16CBE;AFAKA SYMBOL EXCLAMATION;So;0;L;;;;;N;;;;;  
 16CBF;AFAKA FULL STOP;Po;0;L;;;;;N;;;;;




































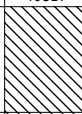



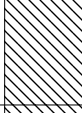



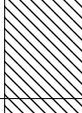











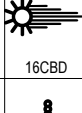








**8. Punctuation.** Three punctuation characters for Afaka have been tentatively identified: a long vertical line (the AFAKA FULL STOP), a vertical line of rings (used to represent the exclamation *O!*), and what appears to be a representation of a comet, which may simply be logographic; it is said that the script was devised in 1908 but that the appearance of Halley’s Comet in 1910 was a sign for Afáka Atumisi to propagate the script to others.

### 9. Bibliography

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Kahn, Morton C. 1931. *Djuka. The Bush Negroes of Dutch Guiana*. New York: Viking Press.

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	16C8	16C9	16CA	16CB
0	 16C80	 16C90	 16CA0	 16CB0
1	 16C81	 16C91	 16CA1	 16CB1
2	 16C82	 16C92	 16CA2	 16CB2
3	 16C83	 16C93	 16CA3	 16CB3
4	 16C84	 16C94	 16CA4	 16CB4
5	 16C85	 16C95	 16CA5	 16CB5
6	 16C86	 16C96	 16CA6	 16CB6
7	 16C87	 16C97	 16CA7	 16CB7
8	 16C88	 16C98	 16CA8	
9	 16C89	 16C99	 16CA9	
A	 16C8A	 16C9A	 16CAA	
B	 16C8B	 16C9B	 16CAB	
C	 16C8C	 16C9C	 16CAC	
D	 16C8D	 16C9D	 16CAD	
E	 16C8E	 16C9E	 16CAE	
F	 16C8F	 16C9F	 16CAF	

**Syllables**

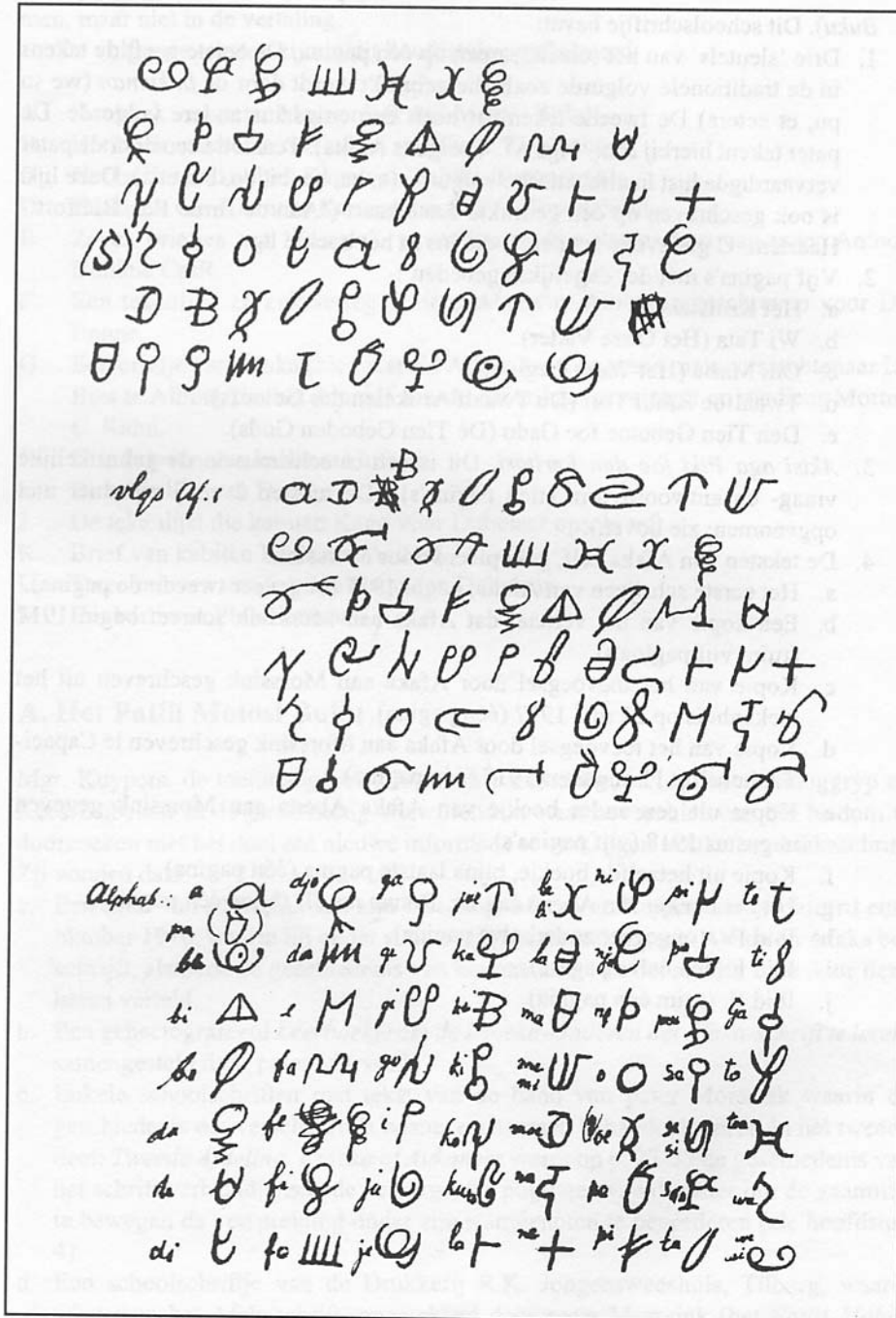
16C80	☉	AFAKA LETTER WE = wi
16C81	☼	AFAKA LETTER SO = su
16C82	☽	AFAKA LETTER PU
16C83	☿	AFAKA LETTER FO = fu
16C84	♃	AFAKA LETTER TU
16C85	♄	AFAKA LETTER LI
16C86	♅	AFAKA LETTER FE
16C87	♆	AFAKA LETTER DYU
16C88	♇	AFAKA LETTER NO
16C89	♈	AFAKA LETTER PO
16C8A	♉	AFAKA LETTER PE
16C8B	♊	AFAKA LETTER DA
16C8C	♋	AFAKA LETTER BI
16C8D	♌	AFAKA LETTER BO
16C8E	♍	AFAKA LETTER FA
16C8F	♎	AFAKA LETTER DE
16C90	♏	AFAKA LETTER KO = kom
16C91	♐	AFAKA LETTER KWA
16C92	♑	AFAKA LETTER GO
16C93	♒	AFAKA LETTER GI
16C94	♓	AFAKA LETTER I
16C95	♈	AFAKA LETTER TO
16C96	♉	AFAKA LETTER LO
16C97	♊	AFAKA LETTER GE
16C98	♋	AFAKA LETTER LA
16C99	♌	AFAKA LETTER PI
16C9A	+	AFAKA LETTER NE = nem
16C9B	∑	AFAKA LETTER WA = wan
16C9C	♄	AFAKA LETTER TYA
16C9D	○	AFAKA LETTER O
16C9E	♅	AFAKA LETTER DI
16C9F	♆	AFAKA LETTER A
16CA0	♇	AFAKA LETTER TI
16CA1	♈	AFAKA LETTER YA
16CA2	♉	AFAKA LETTER FI
16CA3	♊	AFAKA LETTER E = en
16CA4	♋	AFAKA LETTER NA
16CA5	♌	AFAKA LETTER NYA
16CA6	♍	AFAKA LETTER MO
16CA7	♎	AFAKA LETTER KE
16CA8	♏	AFAKA LETTER U = un = ku
16CA9	♐	AFAKA LETTER TA
16CAA	♑	AFAKA LETTER KI
16CAB	♒	AFAKA LETTER NI
16CAC	♓	AFAKA LETTER SI = se
16CAD	♈	AFAKA LETTER YU
16CAE	♉	AFAKA LETTER MI
16CAF	♊	AFAKA LETTER MA
16CB0	♋	AFAKA LETTER SA
16CB1	♌	AFAKA LETTER GA
16CB2	♍	AFAKA LETTER DO
16CB3	♎	AFAKA LETTER TE = tem
16CB4	♏	AFAKA LETTER PA
16CB5	♐	AFAKA LETTER KA
16CB6	♑	AFAKA LETTER BE

16CB7 ☉ AFAKA LETTER YE

**Other signs**

16CBD	☄	AFAKA COMET
16CBE	!	AFAKA SYMBOL EXCLAMATION
16CBF		AFAKA FULL STOP

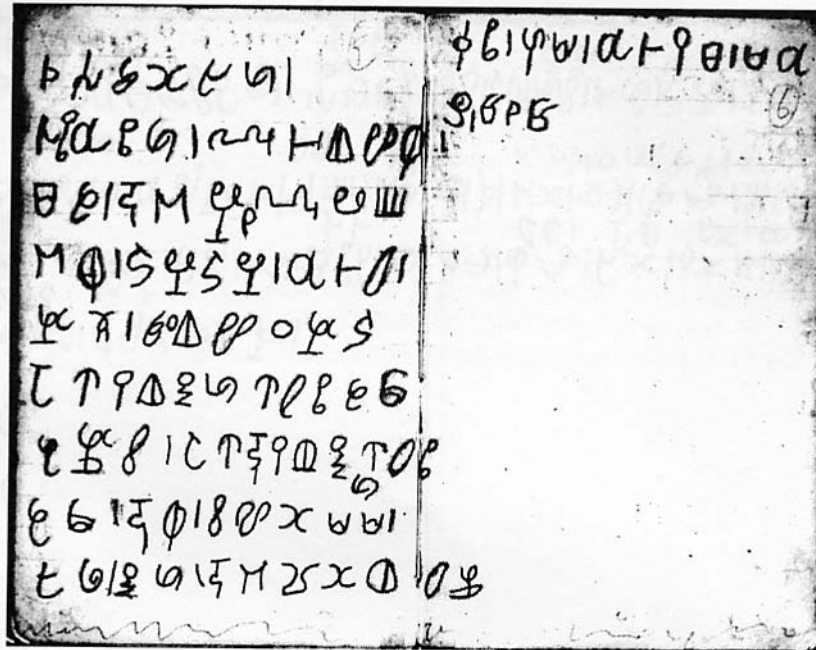
11. Figures.



Figuur 16: De tekenlijsten in het Patili Molosi Buku

Figure 1. Three alphabetical orders for the Afaka script.





Tekst 5 van het *Alufaisi Buku*: enkele spreekwoorden

Tekst, linker pagina:

nongo toli disi  
 pikin akisi/ fala bigi bon/ manya/ na a  
 kai fawe fu en bon/ waka waka/ alata/  
 suku/ toobi gi osu-wan te yu sabi dansi  
 yu taki tolon suti/ te yu na sabi dansi yu  
 taki tolon/ na bun/ tigili dede/ diya/ dansi  
 na en gelebi tapu

Vertaling:

Dit zijn spreekwoorden.  
 Kleine bijl velt grote boom. (Een) manja  
 (vrucht) valt niet ver weg van zijn boom.  
 Zwervende ratten zoeken (veroorzaken)  
 moeilijkheden voor thuisblijvende (rat-  
 ten die hun schuilplaats verlaten vluchten  
 bij gevaar naar ratten die in hun schuil-  
 plaats gebleven zijn en brengen die daar-  
 door in moeilijkheden). Als je kunt dan-  
 sen zeg je (dat de) trom (de muziek) is  
 goed. Als je niet kunt dansen zeg je (dat  
 de) trom niet goed (is). Tijger dood (als  
 de tijger dood is) hert danst op zijn graf.

Tekst (rechter pagina):

tyaki/ konde/ alasama/ de aga/ baiba

Vertaling:

In dyaki land zijn alle mensen met baar-  
 den (draagt iedereen een baard). (dyaki  
 is een vissoort)

Figure 3. A text describing some proverbs.



## A. Administrative

1. Title

**Preliminary proposal for encoding the Afaka script in the SMP of the UCS**

2. Requester's name

**UC Berkeley Script Encoding Initiative (Universal Scripts Project)**

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

**Liaison contribution.**

4. Submission date

**2010-12-21**

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

**No.**

6b. More information will be provided later

**Yes.**

## B. Technical – General

1. Choose one of the following:

1a. This proposal is for a new script (set of characters)

**Yes.**

1b. Proposed name of script

**Afaka.**

1c. The proposal is for addition of character(s) to an existing block

**No.**

1d. Name of the existing block

2. Number of characters in proposal

**59.**

3. Proposed category (A-Contemporary; B.1-Specialized (small collection); B.2-Specialized (large collection); C-Major extinct; D-Attested extinct; E-Minor extinct; F-Archaic Hieroglyphic or Ideographic; G-Obscure or questionable usage symbols)

**Category E.**

4a. Is a repertoire including character names provided?

**Yes.**

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

**Yes.**

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

**Yes.**

5a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the standard?

**Michael Everson.**

5b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.).

**Michael Everson.**

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

**Yes.**

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

**Yes.**

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)?

**Yes.**

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. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at <http://www.unicode.org> for such information on other scripts. Also see UAX #44 <http://www.unicode.org/reports/tr44/> and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

**See above.**

## C. Technical – Justification

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

**No.**

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.)?

**No.**

2b. If YES, with whom?

2c. If YES, available relevant documents

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

**See above.**

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

**To write the Ndyuka language.**

4b. Reference

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

**Yes.**

5b. If YES, where? Reference:

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?

**No.**

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

10c. If YES, reference

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?

**No.**

11e. If YES, reference

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? If YES, reference