

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 Bassa Vah script in the SMP of the UCS****Source: Michael Everson and Charles Riley****Status: Individual Contribution****Action: For consideration by JTC1/SC2/WG2 and UTC****Date: 2010-01-26**

1. Introduction. The Vah script of the Bassa owes most of its development and current form to Thomas Flo Lewis, who worked with the typesetting of it beginning as early as 1907, producing various texts in the script through at least the 1930's. Dr Lewis, a Bassa from Liberia, studied in Syracuse for several years. There are traditions that trace the script's origin through contact between Lewis and Jenni Dirah, son of a slave who may have drawn on an older code of pictograms that was in use among the Bassa, for which there is little supporting documentary evidence. The Vah script and any of its possible antecedents are independent from another effort to develop an alphabet for the Bassa language that dates to the 1830's in the work of the missionary William Crocker.

Dr Lewis actively published while in Syracuse, and later in Dresden between 1915 and 1920. There is evidence of texts being produced in both places, although it is not known whether any of the texts from this period (1907-ca.1935) still exist. He returned for some time to Liberia in the 1910's and 1920's, and according to Dalby's record of an account of Abba G. Karnga, taught many students, including Barni Cheevahn, Jacob B. Logan, a Senator Morgan, and Representative Thomas H. Greeves. Graham Greene, on his travel through Liberia as recounted in his *Journey Without Maps*, reported having collected a fragment of a text in Bassa Vah script.

Since 1959, the script has been promoted through the Bassa Vah Association and United Bassa Organizations in the Americas (UNIBOA), and by individuals including Karnga, Dr Joseph M. N. Gbadyu, Dr Syrulwa Somah, and Varnie N'jola Karmo, among others.

2. Structure. Bassa Vah is a simple alphabetic script, written from left to right. Originally monocal, a lower-case based on handwriting was introduced in the 1990s. The lower-case was based on handwritten forms, just as Latin capital letters derive from monumental forms while Latin small letters derive from miniscule.

Vowels in Bassa Vah are written with diacritical marks which indicate the tone of the vowel. These marks are positioned on the interior of the largest partially or wholly enclosed space of each vowel glyph; the diacritic should be toward the center without touching the edges. Because the tone is obligatory (a Bassa word is misspelled without it) the un-marked vowels are never used alone, except in discussions of the alphabet itself. In the proposed encoding, we we have encoded the vowel letters in precomposition with the tone marks, alongside the atomic parts should they be required for didactic discussion. The Unicode character properties list gives the canonical decompositions.

Accurate rendering is one reason this has been done. The Bassa Vah vowel with their tones are analogous to Łł and Øø, and to the many IPA characters with fused middle tilde. Bassa Vah is a simple script, and should have simple fonts. If only the base letters and diacritics were composed, it would very likely happen that the tone marks would end up displayed incorrectly. This is neither necessary nor desirable.

Dalby’s chart shows a number of glyph variants. It is likely that these should be treated as Vai and Bamum glyph variants have been: that if they are required, either a dedicated font for them should be used, or OpenType tables to invoke alternate forms. The forms used in the chart are the primary ones given in Dalby.

3. Collating order. Collation order is as in the code chart, though the tone-marked letters sort at the second level under the unadorned letter. The order of the consonants is well-established: n, k, s, f, mb, ñ, g, d, kp, j, xw, w, z, gb, nd, c, hw, t, b, v, h, p, l. Dalby’s charts use the order i, a, u, e, ε, ɔ, o—but the order a, ɔ, o, u, e, ε, i, found elsewhere, has been used here.

4. Character names. The usual UCS conventions are used, with EE representing e, E representing ε, OO representing o, and ɔ representing ɔ. More consultation with Bassa speakers and elders will be needed to verify the phonetics and finalize decisions on the names as represented in the repertoire. The current names are based on the following: enni, ká, se, fá, mbe, yie, gah, dii, kpah, jó, xwah, wa, zó, gbù, dɔ, cè, uwu, tǎ, ba, vù, yèin, pa, wadda.

5. Linebreaking. Letters behave as in Vai and Bamum.

6. Punctuation and digits. The Latin FULL STOP may be used, but a Bassa Vah COMMA and FULL STOP are both found in fonts. European digits are used; there are no script-specific digits to be encoded.

7. Unicode Character Properties.

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16A70;BASSA VAH CAPITAL LETTER ENNI;Lu;0;L;;;;;N;;;16AB1;
16A71;BASSA VAH CAPITAL LETTER KA;Lu;0;L;;;;;N;;;16AB2;
16A72;BASSA VAH CAPITAL LETTER SE;Lu;0;L;;;;;N;;;16AB3;
16A73;BASSA VAH CAPITAL LETTER FA;Lu;0;L;;;;;N;;;16AB4;
16A74;BASSA VAH CAPITAL LETTER MBE;Lu;0;L;;;;;N;;;16AB5;
16A75;BASSA VAH CAPITAL LETTER YIE;Lu;0;L;;;;;N;;;16AB6;
16A76;BASSA VAH CAPITAL LETTER GAH;Lu;0;L;;;;;N;;;16AB7;
16A77;BASSA VAH CAPITAL LETTER DHII;Lu;0;L;;;;;N;;;16AB8;
16A78;BASSA VAH CAPITAL LETTER KPAH;Lu;0;L;;;;;N;;;16AB9;
16A79;BASSA VAH CAPITAL LETTER JO;Lu;0;L;;;;;N;;;16ABA;
16A7A;BASSA VAH CAPITAL LETTER HWAH;Lu;0;L;;;;;N;;;16ABB;
16A7B;BASSA VAH CAPITAL LETTER WA;Lu;0;L;;;;;N;;;16ABC;
16A7C;BASSA VAH CAPITAL LETTER ZO;Lu;0;L;;;;;N;;;16ABD;
16A7D;BASSA VAH CAPITAL LETTER GBU;Lu;0;L;;;;;N;;;16ABE;
16A7E;BASSA VAH CAPITAL LETTER DO;Lu;0;L;;;;;N;;;16ABF;
16A7F;BASSA VAH CAPITAL LETTER CE;Lu;0;L;;;;;N;;;16AC0;
16A80;BASSA VAH CAPITAL LETTER UWU;Lu;0;L;;;;;N;;;16AC1;
16A81;BASSA VAH CAPITAL LETTER TO;Lu;0;L;;;;;N;;;16AC2;
16A82;BASSA VAH CAPITAL LETTER BA;Lu;0;L;;;;;N;;;16AC3;
16A83;BASSA VAH CAPITAL LETTER VU;Lu;0;L;;;;;N;;;16AC4;
16A84;BASSA VAH CAPITAL LETTER YEIN;Lu;0;L;;;;;N;;;16AC5;
16A85;BASSA VAH CAPITAL LETTER PA;Lu;0;L;;;;;N;;;16AC6;
16A86;BASSA VAH CAPITAL LETTER WADDA;Lu;0;L;;;;;N;;;16AC7;
16A87;BASSA VAH CAPITAL LETTER A;Lu;0;L;;;;;N;;;16AC8;
16A88;BASSA VAH CAPITAL LETTER A WITH HIGH TONE;Lu;0;L;16A87 16AF2;;;;;N;;;16AC9;
16A89;BASSA VAH CAPITAL LETTER A WITH GRAVE TONE;Lu;0;L;16A87 16AF3;;;;;N;;;16ACA;
16A8A;BASSA VAH CAPITAL LETTER A WITH MID-LOW TONE;Lu;0;L;16A87 16AF4;;;;;N;;;16ACB;
16A8B;BASSA VAH CAPITAL LETTER A WITH DRAG TONE;Lu;0;L;16A87 16AF5;;;;;N;;;16ACC;
16A8C;BASSA VAH CAPITAL LETTER A WITH DOUBLE TONE;Lu;0;L;16A87 16AF6;;;;;N;;;16ACD;
16A8D;BASSA VAH CAPITAL LETTER O;Lu;0;L;;;;;N;;;16ACE;
16A8E;BASSA VAH CAPITAL LETTER O WITH HIGH TONE;Lu;0;L;16A8D 16AF2;;;;;N;;;16ACF;
16A8F;BASSA VAH CAPITAL LETTER O WITH GRAVE TONE;Lu;0;L;16A8D 16AF3;;;;;N;;;16AD0;
16A90;BASSA VAH CAPITAL LETTER O WITH MID-LOW TONE;Lu;0;L;16A8D 16AF4;;;;;N;;;16AD1;
16A91;BASSA VAH CAPITAL LETTER O WITH DRAG TONE;Lu;0;L;16A8D 16AF5;;;;;N;;;16AD2;
16A92;BASSA VAH CAPITAL LETTER O WITH DOUBLE TONE;Lu;0;L;16A8D 16AF6;;;;;N;;;16AD3;
16A93;BASSA VAH CAPITAL LETTER OO;Lu;0;L;;;;;N;;;16AD4;
16A94;BASSA VAH CAPITAL LETTER OO WITH HIGH TONE;Lu;0;L;16A93 16AF2;;;;;N;;;16AD5;
16A95;BASSA VAH CAPITAL LETTER OO WITH GRAVE TONE;Lu;0;L;16A93 16AF3;;;;;N;;;16AD6;
16A96;BASSA VAH CAPITAL LETTER OO WITH MID-LOW TONE;Lu;0;L;16A93 16AF4;;;;;N;;;16AD7;

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16A97;BASSA VAH CAPITAL LETTER OO WITH DRAG TONE;Lu;0;L;16A93 16AF5;;;N;;;16AD8;
16A98;BASSA VAH CAPITAL LETTER OO WITH DOUBLE TONE;Lu;0;L;16A93 16AF6;;;N;;;16AD9;
16A99;BASSA VAH CAPITAL LETTER U;Lu;0;L;;;N;;;16ADA;
16A9A;BASSA VAH CAPITAL LETTER U WITH HIGH TONE;Lu;0;L;16A99 16AF2;;;N;;;16ADB;
16A99;BASSA VAH CAPITAL LETTER U WITH GRAVE TONE;Lu;0;L;16A99 16AF3;;;N;;;16ADC;
16A9C;BASSA VAH CAPITAL LETTER U WITH MID-LOW TONE;Lu;0;L;16A99 16AF4;;;N;;;16ADD;
16A9D;BASSA VAH CAPITAL LETTER U WITH DRAG TONE;Lu;0;L;16A99 16AF5;;;N;;;16ADE;
16A9E;BASSA VAH CAPITAL LETTER U WITH DOUBLE TONE;Lu;0;L;16A99 16AF6;;;N;;;16ADF;
16A9F;BASSA VAH CAPITAL LETTER EE;Lu;0;L;;;N;;;16AE0;
16AA0;BASSA VAH CAPITAL LETTER EE WITH HIGH TONE;Lu;0;L;16A9F 16AF2;;;N;;;16AE1;
16AA1;BASSA VAH CAPITAL LETTER EE WITH GRAVE TONE;Lu;0;L;16A9F 16AF3;;;N;;;16AE2;
16AA2;BASSA VAH CAPITAL LETTER EE WITH MID-LOW TONE;Lu;0;L;16A9F 16AF4;;;N;;;16AE3;
16AA3;BASSA VAH CAPITAL LETTER EE WITH DRAG TONE;Lu;0;L;16A9F 16AF5;;;N;;;16AE4;
16AA4;BASSA VAH CAPITAL LETTER EE WITH DOUBLE TONE;Lu;0;L;16A9F 16AF6;;;N;;;16AE5;
16AA5;BASSA VAH CAPITAL LETTER E;Lu;0;L;;;N;;;16AE6;
16AA6;BASSA VAH CAPITAL LETTER E WITH HIGH TONE;Lu;0;L;16AA5 16AF2;;;N;;;16AE7;
16AA7;BASSA VAH CAPITAL LETTER E WITH GRAVE TONE;Lu;0;L;16AA5 16AF3;;;N;;;16AE8;
16AA8;BASSA VAH CAPITAL LETTER E WITH MID-LOW TONE;Lu;0;L;16AA5 16AF4;;;N;;;16AE9;
16AA9;BASSA VAH CAPITAL LETTER E WITH DRAG TONE;Lu;0;L;16AA5 16AF5;;;N;;;16AEA;
16AAA;BASSA VAH CAPITAL LETTER E WITH DOUBLE TONE;Lu;0;L;16AA5 16AF6;;;N;;;16AEB;
16AAB;BASSA VAH CAPITAL LETTER I;Lu;0;L;;;N;;;16AEC;
16AAC;BASSA VAH CAPITAL LETTER I WITH HIGH TONE;Lu;0;L;16AAB 16AF2;;;N;;;16AED;
16AAD;BASSA VAH CAPITAL LETTER I WITH GRAVE TONE;Lu;0;L;16AAB 16AF3;;;N;;;16AEE;
16AAE;BASSA VAH CAPITAL LETTER I WITH MID-LOW TONE;Lu;0;L;16AAB 16AF4;;;N;;;16AEF;
16AAF;BASSA VAH CAPITAL LETTER I WITH DRAG TONE;Lu;0;L;16AAB 16AF5;;;N;;;16AF0;
16AB0;BASSA VAH CAPITAL LETTER I WITH DOUBLE TONE;Lu;0;L;16AAB 16AF6;;;N;;;16AF1;
16AB1;BASSA VAH SMALL LETTER ENNI;Ll;0;L;;;N;;;16A70;16A70
16AB2;BASSA VAH SMALL LETTER KA;Ll;0;L;;;N;;;16A71;16A71
16AB3;BASSA VAH SMALL LETTER SE;Ll;0;L;;;N;;;16A72;16A72
16AB4;BASSA VAH SMALL LETTER FA;Ll;0;L;;;N;;;16A73;16A73
16AB5;BASSA VAH SMALL LETTER MBE;Ll;0;L;;;N;;;16A74;16A74
16AB6;BASSA VAH SMALL LETTER YIE;Ll;0;L;;;N;;;16A75;16A75
16AB7;BASSA VAH SMALL LETTER GAH;Ll;0;L;;;N;;;16A76;16A76
16AB8;BASSA VAH SMALL LETTER DHII;Ll;0;L;;;N;;;16A77;16A77
16AB9;BASSA VAH SMALL LETTER KPAH;Ll;0;L;;;N;;;16A78;16A78
16ABA;BASSA VAH SMALL LETTER JO;Ll;0;L;;;N;;;16A79;16A79
16ABB;BASSA VAH SMALL LETTER HWAH;Ll;0;L;;;N;;;16A7A;16A7A
16ABC;BASSA VAH SMALL LETTER WA;Ll;0;L;;;N;;;16A7B;16A7B
16ABD;BASSA VAH SMALL LETTER ZO;Ll;0;L;;;N;;;16A7C;16A7C
16ABE;BASSA VAH SMALL LETTER GBU;Ll;0;L;;;N;;;16A7D;16A7D
16ABF;BASSA VAH SMALL LETTER DO;Ll;0;L;;;N;;;16A7E;16A7E
16AC0;BASSA VAH SMALL LETTER CE;Ll;0;L;;;N;;;16A7F;16A7F
16AC1;BASSA VAH SMALL LETTER UWU;Ll;0;L;;;N;;;16A80;16A80
16AC2;BASSA VAH SMALL LETTER TO;Ll;0;L;;;N;;;16A81;16A81
16AC3;BASSA VAH SMALL LETTER BA;Ll;0;L;;;N;;;16A82;16A82
16AC4;BASSA VAH SMALL LETTER VU;Ll;0;L;;;N;;;16A83;16A83
16AC5;BASSA VAH SMALL LETTER YEIN;Ll;0;L;;;N;;;16A84;16A84
16AC6;BASSA VAH SMALL LETTER PA;Ll;0;L;;;N;;;16A85;16A85
16AC7;BASSA VAH SMALL LETTER WADDA;Ll;0;L;;;N;;;16A86;16A86
16AC8;BASSA VAH SMALL LETTER A;Ll;0;L;;;N;;;16A87;16A87
16AC9;BASSA VAH SMALL LETTER A WITH HIGH TONE;Ll;0;L;16AC8 16AF2;;;N;;;16A88;16A88
16ACA;BASSA VAH SMALL LETTER A WITH GRAVE TONE;Ll;0;L;16AC8 16AF3;;;N;;;16A89;16A89
16ACB;BASSA VAH SMALL LETTER A WITH MID-LOW TONE;Ll;0;L;16AC8 16AF4;;;N;;;16A8A;16A8A
16ACC;BASSA VAH SMALL LETTER A WITH DRAG TONE;Ll;0;L;16AC8 16AF5;;;N;;;16A8B;16A8B
16ACD;BASSA VAH SMALL LETTER A WITH DOUBLE TONE;Ll;0;L;16AC8 16AF6;;;N;;;16A8C;16A8C
16ACE;BASSA VAH SMALL LETTER O;Ll;0;L;;;N;;;16A8D;16A8D
16ACF;BASSA VAH SMALL LETTER O WITH HIGH TONE;Ll;0;L;16ACE 16AF2;;;N;;;16A8E;16A8E
16AD0;BASSA VAH SMALL LETTER O WITH GRAVE TONE;Ll;0;L;16ACE 16AF3;;;N;;;16A8F;16A8F
16AD1;BASSA VAH SMALL LETTER O WITH MID-LOW TONE;Ll;0;L;16ACE 16AF4;;;N;;;16A90;16A90
16AD2;BASSA VAH SMALL LETTER O WITH DRAG TONE;Ll;0;L;16ACE 16AF5;;;N;;;16A91;16A91
16AD3;BASSA VAH SMALL LETTER O WITH DOUBLE TONE;Ll;0;L;16ACE 16AF6;;;N;;;16A92;16A92
16AD4;BASSA VAH SMALL LETTER OO;Ll;0;L;;;N;;;16A93;16A93
16AD5;BASSA VAH SMALL LETTER OO WITH HIGH TONE;Ll;0;L;16AD4 16AF2;;;N;;;16A94;16A94
16AD6;BASSA VAH SMALL LETTER OO WITH GRAVE TONE;Ll;0;L;16AD4 16AF3;;;N;;;16A95;16A95
16AD7;BASSA VAH SMALL LETTER OO WITH MID-LOW TONE;Ll;0;L;16AD4 16AF4;;;N;;;16A96;16A96
16AD8;BASSA VAH SMALL LETTER OO WITH DRAG TONE;Ll;0;L;16AD4 16AF5;;;N;;;16A97;16A97
16AD9;BASSA VAH SMALL LETTER OO WITH DOUBLE TONE;Ll;0;L;16AD4 16AF6;;;N;;;16A98;16A98
16ADA;BASSA VAH SMALL LETTER U;Ll;0;L;;;N;;;16A99;16A99
16ADB;BASSA VAH SMALL LETTER U WITH HIGH TONE;Ll;0;L;16ADA 16AF2;;;N;;;16A9A;16A9A
16ADC;BASSA VAH SMALL LETTER U WITH GRAVE TONE;Ll;0;L;16ADA 16AF3;;;N;;;16A9B;16A9B
16ADD;BASSA VAH SMALL LETTER U WITH MID-LOW TONE;Ll;0;L;16ADA 16AF4;;;N;;;16A9C;16A9C
16ADE;BASSA VAH SMALL LETTER U WITH DRAG TONE;Ll;0;L;16ADA 16AF5;;;N;;;16A9D;16A9D
16ADF;BASSA VAH SMALL LETTER U WITH DOUBLE TONE;Ll;0;L;16ADA 16AF6;;;N;;;16A9E;16A9E
16AA0;BASSA VAH SMALL LETTER EE;Ll;0;L;;;N;;;16A9F;16A9F
16AE1;BASSA VAH SMALL LETTER EE WITH HIGH TONE;Ll;0;L;16AA0 16AF2;;;N;;;16AA0;16AA0
16AE2;BASSA VAH SMALL LETTER EE WITH GRAVE TONE;Ll;0;L;16AA0 16AF3;;;N;;;16AA1;16AA1
16AE3;BASSA VAH SMALL LETTER EE WITH MID-LOW TONE;Ll;0;L;16AA0 16AF4;;;N;;;16AA2;16AA2
16AE4;BASSA VAH SMALL LETTER EE WITH DRAG TONE;Ll;0;L;16AA0 16AF5;;;N;;;16AA3;16AA3
16AE5;BASSA VAH SMALL LETTER EE WITH DOUBLE TONE;Ll;0;L;16AA0 16AF6;;;N;;;16AA4;16AA4
16AE6;BASSA VAH SMALL LETTER E;Ll;0;L;;;N;;;16AA5;16AA5
16AE7;BASSA VAH SMALL LETTER E WITH HIGH TONE;Ll;0;L;16AE6 16AF2;;;N;;;16AA6;16AA6
16AE8;BASSA VAH SMALL LETTER E WITH GRAVE TONE;Ll;0;L;16AE6 16AF3;;;N;;;16AA7;16AA7
16AE9;BASSA VAH SMALL LETTER E WITH MID-LOW TONE;Ll;0;L;16AE6 16AF4;;;N;;;16AA8;16AA8
16AEA;BASSA VAH SMALL LETTER E WITH DRAG TONE;Ll;0;L;16AE6 16AF5;;;N;;;16AA9;16AA9
16AEB;BASSA VAH SMALL LETTER E WITH DOUBLE TONE;Ll;0;L;16AE6 16AF6;;;N;;;16AAA;16AAA

16AEC;BASSA VAH SMALL LETTER I;L1;0;L;;;N;;;16AAB;;16AAB
 16AED;BASSA VAH SMALL LETTER I WITH HIGH TONE;L1;0;L;16AEC 16AF2;;;N;;;16AAC;;16AAC
 16AEE;BASSA VAH SMALL LETTER I WITH GRAVE TONE;L1;0;L;16AEC 16AF3;;;N;;;16AAD;;16AAD
 16AEF;BASSA VAH SMALL LETTER I WITH MID-LOW TONE;L1;0;L;16AEC 16AF4;;;N;;;16AAE;;16AAE
 16AF0;BASSA VAH SMALL LETTER I WITH DRAG TONE;L1;0;L;16AEC 16AF5;;;N;;;16AAF;;16AAF
 16AF1;BASSA VAH SMALL LETTER I WITH DOUBLE TONE;L1;0;L;16AEC 16AF6;;;N;;;16AB0;;16AB0
 16AF2;BASSA VAH COMBINING HIGH TONE;Mn;1;NSM;;;N;;;;
 16AF3;BASSA VAH COMBINING GRAVE TONE;Mn;1;NSM;;;N;;;;
 16AF4;BASSA VAH COMBINING MID-LOW TONE;Mn;1;NSM;;;N;;;;
 16AF5;BASSA VAH COMBINING DRAG TONE;Mn;1;NSM;;;N;;;;
 16AF6;BASSA VAH COMBINING DOUBLE TONE;Mn;1;NSM;;;N;;;;
 16AF7;BASSA VAH COMMA;Po;0;L;;;N;;;;
 16AF8;BASSA VAH FULL STOP;Po;0;L;;;N;;;;

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	16A7	16A8	16A9	16AA	16AB	16AC	16AD	16AE	16AF
0	𑌓 16A70	𑌔 16A80	𑌕 16A90	𑌖 16AA0	𑌗 16AB0	𑌘 16AC0	𑌙 16AD0	𑌚 16AE0	𑌛 16AF0
1	𑌜 16A71	𑌝 16A81	𑌞 16A91	𑌟 16AA1	𑌠 16AB1	𑌡 16AC1	𑌢 16AD1	𑌣 16AE1	𑌤 16AF1
2	𑌥 16A72	𑌦 16A82	𑌧 16A92	𑌨 16AA2	𑌩 16AB2	𑌪 16AC2	𑌫 16AD2	𑌬 16AE2	𑌭 16AF2
3	𑌮 16A73	𑌯 16A83	𑌰 16A93	𑌱 16AA3	𑌲 16AB3	𑌳 16AC3	𑌴 16AD3	𑌵 16AE3	𑌶 16AF3
4	𑌷 16A74	𑌸 16A84	𑌹 16A94	𑌺 16AA4	𑌻 16AB4	𑌼 16AC4	𑌽 16AD4	𑌾 16AE4	𑌿 16AF4
5	𑍀 16A75	𑍁 16A85	𑍂 16A95	𑍃 16AA5	𑍄 16AB5	𑍅 16AC5	𑍆 16AD5	𑍇 16AE5	𑍈 16AF5
6	𑍉 16A76	𑍊 16A86	𑍋 16A96	𑍌 16AA6	𑍍 16AB6	𑍎 16AC6	𑍏 16AD6	𑍐 16AE6	𑍑 16AF6
7	𑍒 16A77	𑍓 16A87	𑍔 16A97	𑍕 16AA7	𑍖 16AB7	𑍗 16AC7	𑍘 16AD7	𑍙 16AE7	𑍚 16AF7
8	𑍛 16A78	𑍜 16A88	𑍝 16A98	𑍞 16AA8	𑍟 16AB8	𑍠 16AC8	𑍡 16AD8	𑍢 16AE8	𑍣 16AF8
9	𑍤 16A79	𑍥 16A89	𑍦 16A99	𑍧 16AA9	𑍨 16AB9	𑍩 16AC9	𑍪 16AD9	𑍫 16AE9	
A	𑍬 16A7A	𑍭 16A8A	𑍮 16A9A	𑍯 16AAA	𑍰 16ABA	𑍱 16ACA	𑍲 16ADA	𑍳 16AEA	
B	𑍴 16A7B	𑍵 16A8B	𑍶 16A9B	𑍷 16AAB	𑍸 16ABB	𑍹 16ACB	𑍺 16ADB	𑍻 16AEB	
C	𑍼 16A7C	𑍽 16A8C	𑍾 16A9C	𑍿 16AAC	𑎀 16ABC	𑎁 16ACC	𑎂 16ADC	𑎃 16AEC	
D	𑎄 16A7D	𑎅 16A8D	𑎆 16A9D	𑎇 16AAD	𑎈 16ABD	𑎉 16ACD	𑎊 16ADD	𑎋 16AED	
E	𑎌 16A7E	𑎍 16A8E	𑎎 16A9E	𑎏 16AAE	𑎐 16ABE	𑎑 16ACE	𑎒 16ADE	𑎓 16AEE	
F	𑎔 16A7F	𑎕 16A8F	𑎖 16A9F	𑎗 16AAF	𑎘 16ABF	𑎙 16ACF	𑎚 16ADF	𑎛 16AEF	

Capital consonant letters

16A70	ᱞ	BASSA VAH CAPITAL LETTER ENNI
16A71	ᱟ	BASSA VAH CAPITAL LETTER KA
16A72	ᱠ	BASSA VAH CAPITAL LETTER SE
16A73	ᱡ	BASSA VAH CAPITAL LETTER FA
16A74	ᱢ	BASSA VAH CAPITAL LETTER MBE
16A75	ᱣ	BASSA VAH CAPITAL LETTER YIE
16A76	ᱤ	BASSA VAH CAPITAL LETTER GAH
16A77	ᱥ	BASSA VAH CAPITAL LETTER DHII
16A78	ᱦ	BASSA VAH CAPITAL LETTER KPAH
16A79	ᱧ	BASSA VAH CAPITAL LETTER JO
16A7A	ᱨ	BASSA VAH CAPITAL LETTER HWAH
16A7B	ᱩ	BASSA VAH CAPITAL LETTER WA
16A7C	ᱪ	BASSA VAH CAPITAL LETTER ZO
16A7D	ᱫ	BASSA VAH CAPITAL LETTER GBU
16A7E	ᱬ	BASSA VAH CAPITAL LETTER DO
16A7F	ᱭ	BASSA VAH CAPITAL LETTER CE
16A80	ᱮ	BASSA VAH CAPITAL LETTER UWU
16A81	ᱯ	BASSA VAH CAPITAL LETTER TO
16A82	ᱰ	BASSA VAH CAPITAL LETTER BA
16A83	ᱱ	BASSA VAH CAPITAL LETTER VU
16A84	ᱲ	BASSA VAH CAPITAL LETTER YEIN
16A85	ᱳ	BASSA VAH CAPITAL LETTER PA
16A86	ᱴ	BASSA VAH CAPITAL LETTER WADDA

Capital vowel letters

16A87	ᱵ	BASSA VAH CAPITAL LETTER A
16A88	ᱶ	BASSA VAH CAPITAL LETTER A WITH HIGH TONE
16A89	ᱷ	BASSA VAH CAPITAL LETTER A WITH GRAVE TONE
16A8A	ᱸ	BASSA VAH CAPITAL LETTER A WITH MID-LOW TONE
16A8B	ᱹ	BASSA VAH CAPITAL LETTER A WITH DRAG TONE
16A8C	ᱺ	BASSA VAH CAPITAL LETTER A WITH DOUBLE TONE
16A8D	ᱻ	BASSA VAH CAPITAL LETTER O
16A8E	ᱼ	BASSA VAH CAPITAL LETTER O WITH HIGH TONE
16A8F	ᱽ	BASSA VAH CAPITAL LETTER O WITH GRAVE TONE
16A90	᱾	BASSA VAH CAPITAL LETTER O WITH MID-LOW TONE
16A91	᱿	BASSA VAH CAPITAL LETTER O WITH DRAG TONE
16A92	᱀	BASSA VAH CAPITAL LETTER O WITH DOUBLE TONE
16A93	᱁	BASSA VAH CAPITAL LETTER OO
16A94	᱂	BASSA VAH CAPITAL LETTER OO WITH HIGH TONE
16A95	᱃	BASSA VAH CAPITAL LETTER OO WITH GRAVE TONE
16A96	᱄	BASSA VAH CAPITAL LETTER OO WITH MID-LOW TONE
16A97	᱅	BASSA VAH CAPITAL LETTER OO WITH DRAG TONE
16A98	᱆	BASSA VAH CAPITAL LETTER OO WITH DOUBLE TONE
16A99	᱇	BASSA VAH CAPITAL LETTER U
16A9A	᱈	BASSA VAH CAPITAL LETTER U WITH HIGH TONE
16A9B	᱉	BASSA VAH CAPITAL LETTER U WITH GRAVE TONE
16A9C	᱊	BASSA VAH CAPITAL LETTER U WITH MID-LOW TONE
16A9D	᱋	BASSA VAH CAPITAL LETTER U WITH DRAG TONE
16A9E	᱌	BASSA VAH CAPITAL LETTER U WITH DOUBLE TONE

16A9F	ᱍ	BASSA VAH CAPITAL LETTER EE
16AA0	ᱎ	BASSA VAH CAPITAL LETTER EE WITH HIGH TONE
16AA1	ᱏ	BASSA VAH CAPITAL LETTER EE WITH GRAVE TONE
16AA2	᱐	BASSA VAH CAPITAL LETTER EE WITH MID-LOW TONE
16AA3	᱑	BASSA VAH CAPITAL LETTER EE WITH DRAG TONE
16AA4	᱒	BASSA VAH CAPITAL LETTER EE WITH DOUBLE TONE
16AA5	᱓	BASSA VAH CAPITAL LETTER E
16AA6	᱔	BASSA VAH CAPITAL LETTER E WITH HIGH TONE
16AA7	᱕	BASSA VAH CAPITAL LETTER E WITH GRAVE TONE
16AA8	᱖	BASSA VAH CAPITAL LETTER E WITH MID-LOW TONE
16AA9	᱗	BASSA VAH CAPITAL LETTER E WITH DRAG TONE
16AAA	᱘	BASSA VAH CAPITAL LETTER E WITH DOUBLE TONE
16AAB	᱙	BASSA VAH CAPITAL LETTER I
16AAC	ᱚ	BASSA VAH CAPITAL LETTER I WITH HIGH TONE
16AAD	ᱛ	BASSA VAH CAPITAL LETTER I WITH GRAVE TONE
16AAE	ᱜ	BASSA VAH CAPITAL LETTER I WITH MID-LOW TONE
16AAF	ᱝ	BASSA VAH CAPITAL LETTER I WITH DRAG TONE
16AB0	ᱞ	BASSA VAH CAPITAL LETTER I WITH DOUBLE TONE

Small consonant letters

16AB1	ᱟ	BASSA VAH SMALL LETTER ENNI
16AB2	ᱠ	BASSA VAH SMALL LETTER KA
16AB3	ᱡ	BASSA VAH SMALL LETTER SE
16AB4	ᱢ	BASSA VAH SMALL LETTER FA
16AB5	ᱣ	BASSA VAH SMALL LETTER MBE
16AB6	ᱤ	BASSA VAH SMALL LETTER YIE
16AB7	ᱥ	BASSA VAH SMALL LETTER GAH
16AB8	ᱦ	BASSA VAH SMALL LETTER DHII
16AB9	ᱧ	BASSA VAH SMALL LETTER KPAH
16ABA	ᱨ	BASSA VAH SMALL LETTER JO
16ABB	ᱩ	BASSA VAH SMALL LETTER HWAH
16ABC	ᱪ	BASSA VAH SMALL LETTER WA
16ABD	ᱫ	BASSA VAH SMALL LETTER ZO
16ABE	ᱬ	BASSA VAH SMALL LETTER GBU
16ABF	ᱭ	BASSA VAH SMALL LETTER DO
16AC0	ᱮ	BASSA VAH SMALL LETTER CE
16AC1	ᱯ	BASSA VAH SMALL LETTER UWU
16AC2	ᱰ	BASSA VAH SMALL LETTER TO
16AC3	ᱱ	BASSA VAH SMALL LETTER BA
16AC4	ᱲ	BASSA VAH SMALL LETTER VU
16AC5	ᱳ	BASSA VAH SMALL LETTER YEIN
16AC6	ᱴ	BASSA VAH SMALL LETTER PA
16AC7	ᱵ	BASSA VAH SMALL LETTER WADDA

Small vowel letters

16AC8	ᱶ	BASSA VAH SMALL LETTER A
16AC9	ᱷ	BASSA VAH SMALL LETTER A WITH HIGH TONE
16ACA	ᱸ	BASSA VAH SMALL LETTER A WITH GRAVE TONE
16ACB	ᱹ	BASSA VAH SMALL LETTER A WITH MID-LOW TONE
16ACC	ᱺ	BASSA VAH SMALL LETTER A WITH DRAG TONE
16ACD	ᱻ	BASSA VAH SMALL LETTER A WITH DOUBLE TONE

16ACE	ɔ	BASSA VAH SMALL LETTER O
16ACF	ɔ̄	BASSA VAH SMALL LETTER O WITH HIGH TONE
16AD0	ɔ̌	BASSA VAH SMALL LETTER O WITH GRAVE TONE
16AD1	ɔ̎	BASSA VAH SMALL LETTER O WITH MID-LOW TONE
16AD2	ɔ̏	BASSA VAH SMALL LETTER O WITH DRAG TONE
16AD3	ɔ̐	BASSA VAH SMALL LETTER O WITH DOUBLE TONE
16AD4	o	BASSA VAH SMALL LETTER OO
16AD5	ō	BASSA VAH SMALL LETTER OO WITH HIGH TONE
16AD6	ǒ	BASSA VAH SMALL LETTER OO WITH GRAVE TONE
16AD7	o̎	BASSA VAH SMALL LETTER OO WITH MID-LOW TONE
16AD8	ȍ	BASSA VAH SMALL LETTER OO WITH DRAG TONE
16AD9	o̐	BASSA VAH SMALL LETTER OO WITH DOUBLE TONE
16ADA	u	BASSA VAH SMALL LETTER U
16ADB	ū	BASSA VAH SMALL LETTER U WITH HIGH TONE
16ADC	ǔ	BASSA VAH SMALL LETTER U WITH GRAVE TONE
16ADD	u̎	BASSA VAH SMALL LETTER U WITH MID-LOW TONE
16ADE	ȕ	BASSA VAH SMALL LETTER U WITH DRAG TONE
16ADF	u̐	BASSA VAH SMALL LETTER U WITH DOUBLE TONE
16AE0	ɛ	BASSA VAH SMALL LETTER EE
16AE1	ɛ̄	BASSA VAH SMALL LETTER EE WITH HIGH TONE
16AE2	ɛ̌	BASSA VAH SMALL LETTER EE WITH GRAVE TONE
16AE3	ɛ̎	BASSA VAH SMALL LETTER EE WITH MID-LOW TONE
16AE4	ɛ̏	BASSA VAH SMALL LETTER EE WITH DRAG TONE
16AE5	ɛ̐	BASSA VAH SMALL LETTER EE WITH DOUBLE TONE
16AE6	e	BASSA VAH SMALL LETTER E
16AE7	ē	BASSA VAH SMALL LETTER E WITH HIGH TONE
16AE8	ě	BASSA VAH SMALL LETTER E WITH GRAVE TONE
16AE9	e̎	BASSA VAH SMALL LETTER E WITH MID-LOW TONE
16AEA	ȅ	BASSA VAH SMALL LETTER E WITH DRAG TONE
16AEB	e̐	BASSA VAH SMALL LETTER E WITH DOUBLE TONE
16AEC	i	BASSA VAH SMALL LETTER I
16AED	ī	BASSA VAH SMALL LETTER I WITH HIGH TONE
16AEE	ǐ	BASSA VAH SMALL LETTER I WITH GRAVE TONE
16AEF	i̎	BASSA VAH SMALL LETTER I WITH MID-LOW TONE
16AF0	ȉ	BASSA VAH SMALL LETTER I WITH DRAG TONE
16AF1	i̐	BASSA VAH SMALL LETTER I WITH DOUBLE TONE

Punctuation

16AF7	+	BASSA VAH COMMA
16AF8	+	BASSA VAH FULL STOP

Combining tone marks

16AF2	·	BASSA VAH COMBINING HIGH TONE
16AF3	˘	BASSA VAH COMBINING GRAVE TONE
16AF4	˙	BASSA VAH COMBINING MID-LOW TONE
16AF5	˚	BASSA VAH COMBINING DRAG TONE
16AF6	˛	BASSA VAH COMBINING DOUBLE TONE

9. Figures.

Table V The Bassa Alphabet									
CONSONANTS				VOWELS AND TONES					
LENIS		FORTIS			HIGH	MID	LOW	MID-LOW	HIGH-LOW
p	²² 7(17)	b	¹⁹ ㄣ	i	ɿ	ɿ(ɿ)	ɿ	ɿ	ɿ
kp	⁹ 7(β)	gb/gm	¹⁴ ㄱ						
m/b	⁵ ɣ(β)			a	ɳ(h17)		etc.		
f	⁴ ㄴ(ㄴ)	v	²⁰ ㄷ(ɸ)						
t	¹⁸ ㄷ(ㄷ)	d	⁸ ㄷ	u	ɳ(ㄴ)		etc.		
n	¹ 3								
dy/ny	⁶ ㄷ(ㄷ)			e	ɛ(ɔ)		etc.		
d.(l)	¹⁵ ㄴ(ㄴ)								
r	²³ ㄷ(ㄷ)			ɛ	ɛ		etc.		
s	³ ㄷ(ㄷ)	z	¹³ ㄷ						
c	¹⁶ ㄷ	j	¹⁰ ㄴ	ɔ	ɔ (ㄷㄷ)		etc.		
k	² ㄴ(ㄴ)	g	⁷ ㄷ(ㄷ)						
w	¹² ㄴ(ㄴ)	h	²¹ ㄷ(H)	o	o		etc.		
xw	¹¹ ㄷ(ㄷ)	hw	¹⁷ ㄷ(ㄷ)						

Figure 1. Table of Bassa Vah syllables from Dalby 1967.

Bassa Vah "Vah" Alphabet							
CONSONANTS							
ᵛᵛ (n)	ᵏᵏ (k)	ᶜᶜ (s)	ᶑᶑ (f)	ᶖᶖ (mb)	ᶒᶒ (t/ʃ)	ᶎᶎ (g)	ᶑᶑ (d)
ᶑᶑ (kp)	ᶑᶑ (j)	ᶑᶑ (xw)	ᶑᶑ (w)	ᶑᶑ (z)	ᶑᶑ (gb)	ᶑᶑ (d/ʃ)	ᶑᶑ (ch)
ᶑᶑ (hw)	ᶑᶑ (t)	ᶑᶑ (b)	ᶑᶑ (v)	ᶑᶑ (h)	ᶑᶑ (p)	ᶑᶑ (r)	
VOWELS							
ᵏᵏ (a)	ᵏᵏ (ɔ)	ᵏᵏ (o)	ᵏᵏ (u)	ᵏᵏ (e)	ᵏᵏ (ɛ)	ᵏᵏ (i)	
TONAL MARKS		· (high)	ᵏ (grave)	ᵏ (mid-low)	ᵏ (drag)	ᵏ (double)	

Figure 2. Chart of Bassa Vah showing casing pairs and the vowels and tone marks in isolation.

23 CONSONANTS

ᵛ ᵏ ᶜ ᶑ ᶖ ᶒ ᶎ ᶑ

ᶑ ᶑ ᶑ ᶑ ᶑ ᶑ ᶑ ᶑ

ᶑ ᶑ ᶑ ᶑ ᶑ ᶑ ᶑ

7 VOWELS

ᵏ ᵏ ᵏ ᵏ ᵏ ᵏ ᵏ

5 TONES

· ᵏ ᵏ ᵏ ᵏ

High
Grave(Low)
Mid-Low
Drag
Double

Figure 3. Sample of handwritten Bassa Vah text.

A. Administrative

1. Title

Preliminary proposal for encoding the Bassa Vah script in the SMP of the UCS

2. Requester's name

Michael Everson

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

Individual contribution.

4. Submission date

2010-01-26

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

Bassa Vah.

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

136.

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 A.

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 (ordered preference: True Type, or PostScript format) for publishing the standard?

Jason Glavy and Michael Everson.

5b. If available now, identify source(s) for the font (include address, e-mail, ftp-site, etc.) and indicate the tools used:

Michael Everson, FontLab.

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 Unicode Character Database <http://www.unicode.org/Public/UNIDATA/UnicodeCharacterDatabase.html> 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?

See above.

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

Slightly common.

4b. Reference

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

Yes.

5b. If YES, where?

Scholars and some local use in Sierra Leone and Liberia.

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?

Yes.

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

Yes.

9c. If YES, reference

Canonical decompositions are given along with the base characters and script-specific diacritics.

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 (see clauses 4.12 and 4.14 in ISO/IEC 10646-1: 2000)?

Yes.

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

Yes.

11c. If YES, reference

See above.

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

Yes.

11e. If YES, reference

See code chart and Unicode properties.

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?