# UC Berkeley Proposals from the Script Encoding Initiative

# Title

Proposal to encode additional Unified Canadian Aboriginal Syllabics in the UCS

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

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Title: Proposal to encode additional Unified Canadian Aboriginal Syllabics in the UCS

- Source: UC Berkeley Script Encoding Initiative (Universal Scripts Project)
- Authors: Michael Everson and Chris Harvey
- Status: Individual Contribution
- Action: For consideration by JTC1/SC2/WG2 and UTC
- Date: 2008-10-06

**1. Summary.** This document requests 43 additional characters to be added to the UCS and contains the proposal summary form.

#### 2. Additions for Moose Cree.

~				
	⊳ٌ /oj/	18B0	CANADIAN SYLLABICS OY	(fig. 3)
	⊲́ /aj/	18B1	CANADIAN SYLLABICS AY	(fig. 1)
	ḋ /aːj/	18B2	CANADIAN SYLLABICS AAY	(fig. 2)
	⊷⊲ /waj/	18B3	CANADIAN SYLLABICS WAY	(fig. 4)
	°∕poj/	18B4	CANADIAN SYLLABICS POY	(fig. 3)
	< /paj/	18B5	CANADIAN SYLLABICS PAY	(fig. 3)
	$\cdot$ /p <sup>w</sup> oj/	18B6	CANADIAN SYLLABICS PWOY	(fig. 3)
	Ċ /taj/	18B7	CANADIAN SYLLABICS TAY	(fig. 3)
	ь́ /kaj/	18B8	CANADIAN SYLLABICS KAY	(fig. 6)
	ь́ /kʷaj/	18B9	CANADIAN SYLLABICS KWAY	σd"⊂`₺ <i>nikohtaskway</i>
	∟ /maj/	18BA	CANADIAN SYLLABICS MAY	רֹל <i>miyāmay</i>
	/noj/ م	18BB	CANADIAN SYLLABICS NOY	<i>"⊲⊳ hanoy</i>
	å naj/	18BC	CANADIAN SYLLABICS NAY	Duba <i>ošikwanay</i>
	/laj/	18BD	CANADIAN SYLLABICS LAY	(fig. 5)
	/soj/ نہ	18BE	CANADIAN SYLLABICS SOY	(fig. 3)
	ις /saj/	18BF	CANADIAN SYLLABICS SAY	(fig. 3)
	² /∫oj/	18C0	CANADIAN SYLLABICS SHOY	(fig. 3)
	\$ /∫aj/	18C1	CANADIAN SYLLABICS SHAY	(fig. 3)
	·ج \J™oj/	18C2	CANADIAN SYLLABICS SHWOY	⊲<·ċ apašwoy
	⊀ /joj/	18C3	CANADIAN SYLLABICS YOY	(fig. 3)
	/jaj/ ל	18C4	CANADIAN SYLLABICS YAY	(fig. 3)
	ς /raj/	18C5	CANADIAN SYLLABICS RAY	(fig. 7)

Moose Cree uses a ring above to indicate that a syllable ends in -y. The UCS currently encodes 11 of these characters which are also used in Inuktitut; 22 additional characters are proposed here for Moose Cree. For several of these we do not have textual examples, but can provide citations:  $\lfloor /maj/$  in Plains Cree  $\lceil \forall \rfloor$  *miyāmay* 'no doubt';  $\lrcorner$  /noj/ in Moose Cree  $\neg \triangleleft \flat$  *hanoy* 'Hanoi';  $\lrcorner$  /naj/ in  $\vartriangleright \flat \flat \flat \flat$  *ošikwanay* 'wigwam pole';  $\.$  / $\int$  oj/ in Moose Cree  $\triangleleft < \.$  *apašwoy* 'fish tail';  $\.$  /k<sup>w</sup>aj/ in Moose Cree  $\sigma \dashv \neg \subset \lor \flat$  *nikohtaskway* 'my throat'.

## 3. Additions for Beaver Dene.

∿ /lje/	18C6	CANADIAN SYLLABICS R-CREE RWE	(fig. 13)
∠ /laj/.	18C8	CANADIAN SYLLABICS WEST-CREE LAA	(fig. 8, 10, 11)
じ•/tje/	18C9	CANADIAN SYLLABICS THWE	(fig. 8, 10)
C•/tja/	18CA	CANADIAN SYLLABICS THWA	(fig. 10)
⊎• /hje/	18CB	CANADIAN SYLLABICS TTHWE	(fig. 13)
Ė ∕haj∕	18CD	CANADIAN SYLLABICS TTHAA	(figs. 9, 10, 11)
স /tlje/	18CE	CANADIAN SYLLABICS TLHWE	(fig. 11)
୩ /zje/	18D0	CANADIAN SYLLABICS SAYISI SHWE	(fig. 9)
∿ /gje/	18D2	CANADIAN SYLLABICS SAYISI HWE	
W•/t∫je/	18D4	CANADIAN SYLLABICS CARRIER GWU	(fig. 8)
Ė/t∫aj/	18D6	CANADIAN SYLLABICS CARRIER GAA	(fig. 12)
さ /tsaj/	18D8	CANADIAN SYLLABICS CARRIER JUU	
₀r /tsje/	18DA	CANADIAN SYLLABICS CARRIER JWA	(fig. 8)

There are 3 diphthongized (dot-above) characters required for Beaver Dene, and 7 letters with a palatal glide modified by a dot-after diacritic: 13 characters are proposed here for Beaver Dene. We have not found an example of  $\sqrt{gje}$  or of  $\frac{1}{5}$  /tsaj/, but the syllables surely occur. (Syllabaries are by nature systematic; it would be easy to propose characters just to fill in blanks in a grid. In N3437 for instance 39 characters were proposed for Moose Cree to fill out the grid but only 22 are proposed here. The case for Beaver Dene *gye* and *tsay* is linguistically more sound than that which could have been made for Moose Cree. We leave it to WG2 and the UTC to determine whether these two characters should be encoded at this time or not.)

## 4. Addition for Hare Dene.

1 character is proposed here for Hare Dene.

E•/∫ja/ 18D7	CANADIAN SYLLABICS CARRIER GWA	(fig. 14)
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# 5. Additions for Chipewyan Dene.

Ь /lu/	18C7	CANADIAN SYLLABICS WEST-CREE LOO	(fig. 15)
$\dot{\supset}/t^{\rm h}u/$	18CC	CANADIAN SYLLABICS TTHOO	(fig. 15)
∀ /tɬu/	18CF	CANADIAN SYLLABICS TLHOO	(fig. 15)
ຢ /∫u/	18D1	CANADIAN SYLLABICS SAYISI SHOO	(fig. 15)
ં /gu/	18D3	CANADIAN SYLLABICS SAYISI HOO	(fig. 15)
'∃ /t∫u	18D5	CANADIAN SYLLABICS CARRIER DENE GEE	(fig. 15)
ວ້ /tsu/	18D9	CANADIAN SYLLABICS SAYISI JUU	(fig. 15)

These characters have a dot-above diacritic which changes the syllable vowel from /o/ to /u/: 7 characters are proposed here for Chipeywan Dene.

**6.** Character naming convention. A robust convention for naming UCAS characters in the UCS exists, though it has not previously been described. Perhaps the text given here could be used in the block description for Canadian Syllabics in the Unicode Standard.

The naming convention for Canadian Syllabics treats groups of characters, which are distinguished by rotation and/or the addition of rings, dots, or other marks, as "classes". The L-class, for example, comprises  $\neg /le/, \subset /li/, \supset /lo/, \subset /la/, ` /l/, with the additional ċ /la:j/, ċ /li:/, <math>\ominus /lo:/, \doteq /lo:/, \doteq /la:/, \neg /lwe/, \neg /lwe/, \subset /lwi/, \subset /lwi/, ċ /lwi:/, ċ /lwi:/, <math>\ominus /lwo/, \supset /lwo/, \odot /lwo/, \odot /lwo/, \odot /lwo:/, \div /lwo:/, \subset /lwa/, c /lwa/, ċ /lwa:/, ċ /lwa:/. The dot above diacritic is represented by doubling the base vowel: <math>\supset$  LO,  $\supset$  LOO; the dot before or behind is represented by a -w-:  $\supset$ 

LWO, rightarrow LWO. A new class, the LH-class, was historically derived from the L-class:  $c^{-1}/4i/$ ,  $c^{-1$ 

Other languages use letters of these classes with different values. For instance, the C-class  $\cap /tfe/ \cap /tfi/$ ,  $\cup /tfo/$ ,  $\cup /tfa/$  is used in Inuktitut for g /yaj yi yu ya/. Similarly, the CARRIER G-class is used for Dene /tf/; the CARRIER J-class is used for Dene /ts/. Accordingly, the use of the word CARRIER in a name does not imply that it is used in the Carrier language itself, but merely that the character is a member of a particular class. The dot-after in precomposition typically indicates labialization, as in  $\cap$  NA,  $\cap$  WEST-CREE NWA; since  $\mathbb{U}$  is CARRIER GU, when the dot is added the name is conventionally derived as  $\mathbb{U}$  CARRIER GWU, although the character is used for Beaver Dene /tsje/. The dot-above in precomposition typically indicates length, as in  $\cap$  NA,  $\ominus$  NAA; since  $\mathcal{I}$  is SAYISI HO, when the dot is added the name is conventionally derived as  $\stackrel{!}{\mathcal{I}}$  SAYISI HOO, although the character is used for Chipewyan Dene /gu/. This naming convention permits users of the standard to more readily identify members of a class.

#### 7. Unicode Character Properties.

		OY;Lo;0;L;;;;N;;;;;
18B1;CANADIAN	SYLLABICS	AY;Lo;0;L;;;;;N;;;;;
		AAY;Lo;0;L;;;;;N;;;;;
18B3;CANADIAN	SYLLABICS	WAY;Lo;0;L;;;;;N;;;;;
18B4;CANADIAN		POY;Lo;0;L;;;;N;;;;;
18B5;CANADIAN		PAY;Lo;0;L;;;;;N;;;;;
18B6;CANADIAN	SYLLABICS	PWOY;Lo;0;L;;;;N;;;;;
18B7;CANADIAN	SYLLABICS	
18B8;CANADIAN	SYLLABICS	KAY;Lo;0;L;;;;;N;;;;;
18B9;CANADIAN	SYLLABICS	
18BA;CANADIAN	SYLLABICS	MAY;Lo;0;L;;;;;N;;;;;
18BB;CANADIAN		NOY;Lo;0;L;;;;;N;;;;;
18BC;CANADIAN		NAY;Lo;0;L;;;;;N;;;;;
18BD;CANADIAN	SYLLABICS	LAY;Lo;0;L;;;;;N;;;;;
18BE;CANADIAN		SOY;Lo;0;L;;;;N;;;;;
18BF;CANADIAN	SYLLABICS	SAY;Lo;0;L;;;;;N;;;;;
18C0;CANADIAN		SHOY;Lo;0;L;;;;N;;;;;
18C1;CANADIAN		
18C2;CANADIAN		SHWOY;Lo;0;L;;;;;N;;;;;
18C3;CANADIAN		YOY;Lo;0;L;;;;;N;;;;;
18C4;CANADIAN		YAY;Lo;0;L;;;;;N;;;;;
18C5;CANADIAN		RAY;Lo;0;L;;;;;N;;;;;
18C6;CANADIAN		R-CREE RWE;Lo;0;L;;;;;N;;;;;
18C7;CANADIAN	SYLLABICS	WEST-CREE LOO;Lo;0;L;;;;;N;;;;;
18C8;CANADIAN	SYLLABICS	WEST-CREE LAA;Lo;0;L;;;;;N;;;;;
18C9;CANADIAN	SYLLABICS	
18CA;CANADIAN	SYLLABICS	
18CB;CANADIAN	SYLLABICS	TTHWE;L0;0;L;;;;N;;;;;
18CC;CANADIAN	SYLLABICS	TTHOO;Lo;0;L;;;;;N;;;;;
18CD;CANADIAN	SYLLABICS	TTHAA;Lo;0;L;;;;;N;;;;;
18CE;CANADIAN	SYLLABICS	TLHWE;L0;0;L;;;;;N;;;;;
18CF;CANADIAN	SYLLABICS	TLHOO;Lo;0;L;;;;;N;;;;;
18D0;CANADIAN	SYLLABICS	SAYISI SHWE;Lo;0;L;;;;;N;;;;;
18D1;CANADIAN	SYLLABICS	SAYISI SHOO;Lo;0;L;;;;;N;;;;;
18D2;CANADIAN	SYLLABICS	SAYISI HWE;Lo;0;L;;;;;N;;;;;
18D3;CANADIAN	SYLLABICS	SAYISI HOO;Lo;0;L;;;;;N;;;;;
18D4;CANADIAN	SYLLABICS	CARRIER GWU;Lo;0;L;;;;;N;;;;;
18D5;CANADIAN	SYLLABICS	CARRIER DENE GEE;Lo;0;L;;;;N;;;;;
18D6;CANADIAN	SYLLABICS	CARRIER GAA;Lo;0;L;;;;;N;;;;;
18D7;CANADIAN	SYLLABICS	
18D8;CANADIAN		CARRIER JUU;Lo;0;L;;;;;N;;;;;
18D9;CANADIAN	SYLLABICS	
18DA;CANADIAN	SYLLABICS	CARRIER JWA;Lo;0;L;;;;;N;;;;;

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# For Hare addition

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	18B	18C	18D	18E	18F
0	∿	Ş	୶		
	18B0	18C0	18D0		
1	°⊂ 1	Ŝ	J		
	18B1	18C1	18D1		HHHH
2	Å.	<b>ڈ</b> •	<b>1</b> *D2		
	18B2	18C2	18D2		
3	Ŷ	$\overset{\bullet}{\prec}$	j		
	18B3	18C3	18D3		
4	$\overset{\circ}{>}$	ځ	₩•		
	18B4	18C4	18D4		
5	$\hat{<}$	ς	÷		
	18B5	18C5	18D5		
6	•>	∿•	Ė		
	18B6	18C6	18D6		
7	Ċ	<b>i</b> S	5.		
	18B7	18C7	18D7		
8	ĥ	نى	5		
	18B8	18C8	18D8		
9	•ĥ	<b>၅.</b>	2		
	18B9	18C9	18D9		
А	Ĺ	<b>C</b> •	Q1•		
	18BA	18CA	18DA		
В	ڡ۠	U <b>.</b>			
	18BB	18CB			
С	å	Ę			
	18BC	18CC			
D	Ľ	Ė			
	18BD	18CD			
Е	لْم	<b>Я</b> •			
	18BE	18CE			
F	Ļ	Ъ			
	۱ 18BF	18CF			
	1001	1001			

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# **Additions for Moose Cree**

18B0	Ů	CANADIAN SYLLABICS OY
18B1	Å	CANADIAN SYLLABICS AY
18B2	ä	CANADIAN SYLLABICS AAY
18B3	۰	CANADIAN SYLLABICS WAY
18B4	$\overset{\circ}{>}$	CANADIAN SYLLABICS POY
18B5	ċ	CANADIAN SYLLABICS PAY
18B6	·>	CANADIAN SYLLABICS PWOY
18B7	Ċ	CANADIAN SYLLABICS TAY
18B8	Ġ	CANADIAN SYLLABICS KAY
18B9	ъ	CANADIAN SYLLABICS KWAY
18BA	Ĺ	CANADIAN SYLLABICS MAY
18BB	ڡ۫	CANADIAN SYLLABICS NOY
18BC	å	CANADIAN SYLLABICS NAY
18BD	ċ	CANADIAN SYLLABICS LAY
18BE	ڵ	CANADIAN SYLLABICS SOY
18BF	Ļ	CANADIAN SYLLABICS SAY
18C0	Ş	CANADIAN SYLLABICS SHOY
18C1	Ŝ	CANADIAN SYLLABICS SHAY
18C2	ځ	CANADIAN SYLLABICS SHWOY
18C3	ŕ	CANADIAN SYLLABICS YOY
18C4	ŕ	CANADIAN SYLLABICS YAY
18C5	Ŝ	CANADIAN SYLLABICS RAY

# Additions for Beaver Dene, Hare Dene, and Chipewyan Dene

18C6	-∿•	CANADIAN SYLLABICS R-CREE RWE Beaver Dene (LYE)
18C7	i,	
1807	5	CANADIAN SYLLABICS WEST-CREE LOO
40.00	•	Chipewyan Dene (LU)
18C8	į	CANADIAN SYLLABICS WEST-CREE LAA
		Beaver Dene (LAI)
18C9	<b>с</b> .	CANADIAN SYLLABICS THWE
		Beaver Dene (TYE)
18CA	C•	CANADIAN SYLLABICS THWA
		Beaver Dene (TYA)
18CB	U.	CANADIAN SYLLABICS TTHWE
		Beaver Dene (HYE)
18CC	Ð	CANADIAN SYLLABICS TTHOO
		Chipewyan Dene (TTHU)
18CD	Ė	CANADIAN SYLLABICS TTHAA
		Beaver Dene (HAI)
18CE	<b>Я</b> •	CANADIAN SYLLABICS TLHWE
		Beaver Dene (TLYE)
18CF	પ્રં	CANADIAN SYLLABICS TLHOO
		Chipewyan Dene (TLU)
18D0	୍ର	CANADIAN SYLLABICS SAYISI SHWE
		Beaver Dene (ZYE)
18D1	J	CANADIAN SYLLABICS SAYISI SHOO
		Chipewyan Dene (SHU)
18D2	$\neg$	CANADIAN SYLLABICS SAYISI HWE
		Chipewyan Dene (GWE), Beaver Dene
		(GYE)
18D3	j	CANADIAN SYLLABICS SAYISI HOO
		Chipewyan Dene (GU)
18D4	W۰	CANADIAN SYLLABICS CARRIER GWU
		Beaver Dene (CHYE)
18D5	∋	CANADIAN SYLLABICS CARRIER DENE
		GEE
		Chipewyan Dene (CHU)

- 18D6 È CANADIAN SYLLABICS CARRIER GAA Beaver Dene (CHAI)
- 18D8 Ġ CANADIAN SYLLABICS CARRIER JUU Beaver Dene (TSAI)
- 18D9 δ CANADIAN SYLLABICS SAYISI JUU Chipewyan Dene (TSU)
- 18DA or CANADIAN SYLLABICS CARRIER JWA Beaver Dene (TSYE)

Date: 2008-10-06

# Figures.

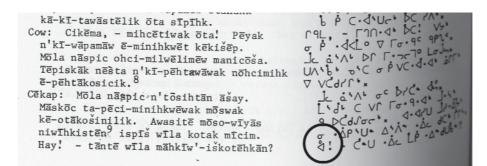
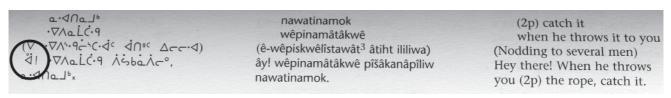


Figure 1. Sample in Moose Cree from Ellis 2000a, showing *△* CANADIAN SYLLABICS AY in *△*! hay!.



**Figure 2.** Sample in Moose Cree from Ellis 2000b, showing  $\exists$  CANADIAN SYLLABICS AAY in  $\exists$ !  $\hat{a}y$ ! 'hey there!'.

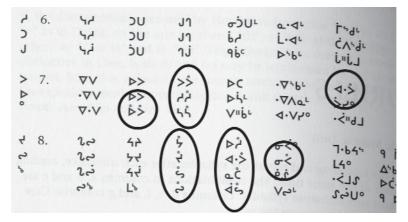


Figure 3. Sample in Moose Cree from Ellis 2000a, showing ▷ CANADIAN SYLLABICS OY, ▷ CANADIAN SYLLABICS POY, ▷ CANADIAN SYLLABICS SOY, └ CANADIAN SYLLABICS SAY, ▷ CANADIAN SYLLABICS YAY, ऎ CANADIAN SYLLABICS YOY, Š CANADIAN SYLLABICS SHAY, ▷ CANADIAN SYLLABICS SHOY, ▷ CANADIAN SYLLABICS PWOY, 쏙 CANADIAN SYLLABICS PAY, ▷ CANADIAN SYLLABICS TAY, in ▷> oypoy, >> popoy, ▷ sosoy, └ sasay, ▷ yay, ऎ yoy, Š šay, ▷ šoy, ↔> apwoy, ♂< nipay, ०Ċ natay.</p>

·¿c: ~ P'9-"U"C DCJj" ſ ė ėC·∇⊂"CL·⊲P<° e<b"U·bx حلاله ٩ ۵.0< من ٢ ٩ ۵.٠٩ ... Dia" is p (·d'U'x or ∆Uri" V ·à UC·∆à'<=:4 dn" ·àc ·àp" Lb ocx DIC A·U< · ▼ ·à SS·Vd. · Vd. 1-0: ۵۶ .⊲σ"∩ċσ.⊲"66 ·dib Abax d's a P P b. Ab . d. d. ?

**Figure 4.** Sample in Moose Cree from Ellis 2000b, showing <sup>A</sup> CANADIAN SYLLABICS WAY in *b* "Ċ<sup>A</sup> *nōstāway* 'my father'.

N'kT-	olaysinimiwāw * 'ci-wī-kakwē-ayācik n'kī-wīhtamawāwak -wīhtamawāwak 'ci-wī-kak inimiwāwa okipahowēsiwa	NI TA wē−ayācik ohci.	their licence that they-should-try-to-get-it I told them I told them they should try to get their licences from the Mountie.	۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ - ۲ -
		1.6		

**Figure 5.** Sample in Moose Cree from Ellis 2000a, showing ⊂ CANADIAN SYLLABICS LAY in the loanword ▷⊂rσΓ·ḋ⊲ *olaysinimiwāwa* 'their licences'.

Doctor:	opīwāpiskom otinam	NI	his "temperature" (lit. <u>metal</u> ) (U) take it (rel.)	D V. J. J.
Pēci-pi opīwāpi	pēci-pīhtokah…ēw pēci-pīhtokay Thtokay, otinam māka Iskom.	TA	he brings him in (U) bring him in Bring him in and take his temperature.	VL YOP POR TP DY YOY, 91
Nurse: Apišīš	kikisison.		U have a bit of a temperature.	and + P Pr/+ +
Doctor:	ospitonihk otëhi otëhiyāpiy kotinam	NI ds loc. NI ds NI	in his arm his heart his heart-line (artery) (U) test it by hand (relative)	900 2002 2002
Kotinar	n otēhiyāpiy ospitoni	hk.	Check his pulse.	dnal DUDSA D'NDO'x

Figure 6. Sample in Moose Cree from Ellis 2000a,

showing b CANADIAN SYLLABICS KAY in  $\forall \cap \dot{A} \supset \dot{b}$  *pēci-pīhtokay* 'bring him in'.

# م: درمی میروند مرکوری مرکومی م: درمی میروند میروند م

Figure 7. Sample from the Book of Common Prayer in Moose Cree (Hordon 1853), showing ל CANADIAN SYLLABICS RAY in `לָה׳ krayst 'Christ'.

ຍິຊ ເຊັ່ນວ (ຄ.ອີູ ຜູ້ນິຍ, ເຊີ שם שם ששיש ששוש ששוש ש באש ביחים אשתייכושהיים פיפטיחה ליילה, שע אד טפייה av on ew.~. AD 10. "PD 00 ". PD 00 EQ "R. DD עפח פקיים בהייט LINNU 404 GIMUU 200 10 DU 40. P.3 9.1.6 40 40 40 10 10 10 10 10 É"∃ CIODA, C NOU LoD"C'. Ezek. xviii. 27. ଏଙ୍ହ୍ନର ଏହ ୧୦୬୪ d∈^୧, b"3 ราชภก Δ'60 D'C'. Ps. li, 3. ער אים אר ארמעט ערעאי, היש עם **¬พ๔⊳׳ถ เ¬๙ฦฦ๎ ๙๛ ⊳∞๖ ¬๙๛๓๛**๛๛. Ps. li. 9. L'E VE CT (U.) A. D' C'L'C: 'CU. N רפיס ש העונד ש, ל נופ יוכ, אש גישע ∩?∩. Ps. li. 17.

Figure 8. Sample in Beaver Dene showing U CANADIAN SYLLABICS THWE in U C I n *tyečatatlihi*, ¿ CANADIAN SYLLABICS WEST-CREE LAA in ∇ " ¿ *G ehlaiti*, U CANADIAN SYLLABICS CARRIER GWU in C U · ∠ *tačyestla*, ↔ CANADIAN SYLLABICS CARRIER JWA in ↔ *tsye*.

4"DODD A'9" 42 L'CTUNA L'C9.WAA 3; H'3 AD LECODLODA 900H du **ח**קסית נפט זכה שלייש ניפ יפ; מי₀סע יסס-3 EC. DAA", 6"3 (1'C9. DOT 4.DA; 44 D3 A'NU'Y היש שיא היש מיטי מפיס-יפיטעיל אייל פרטפ ז׳ר הה פ טטדפ-MY NO, L'AND DEAR DELUG AU EDMAA , D6DS DDM L69 D3 AU, PIZ TIETODIA DU ADDEL PIZ JURG. אט, שיבה עיפיף וא שיש גיפואט ש. א AU DOM L'ILONG ATU 3 AU 77, LELICIUM DIEN DO IC, L'B UA L AU 50n 440 'Ema'n, גקייה ספיפיים.

**Figure 9.** Sample in Beaver Dene showing  $\mathfrak{P}$  CANADIAN SYLLABICS SAYISI SHWE in  $\mathfrak{Q} ' \in \mathfrak{P}$  naghazye and  $\mathfrak{E}$  CANADIAN SYLLABICS TTHAA in ' $\in \mathfrak{ODU}$ '  $\mathfrak{E}$  ghawotyekhai.

Supplementary Syllabarium. pronounced as the English word eye. high. ,, lie. my. ,; nigh. sigh. C tie. b pronounced as ky in the English word sky. 9. kye. Ь· kya. tghe. UG tgha. 6→ tyi. ve. khe. 'n khi. 'D kho kha. "U hle. "A hli. "5 hlo. "d hla. 'oD kwo. '₀⊲ kwa. '₀⊽ kwe. 'o∆ kwi. The following are the other signs used, viz. : X, for the word Christ. necessary in writing such names as Peter, Mary, Herod, &c. ', the acute accent.

**Figure 10.** Sample showing CANADIAN SYLLABICS TTHAA as Beaver Dene  $\in hai$ , CANADIAN SYLLABICS WEST-CREE LAA as Beaver Dene i *lai*, CANADIAN SYLLABICS THWA as Beaver Dene  $\bigcirc$  *tya*, and CANADIAN SYLLABICS THWE as Beaver Dene  $\bigcirc$  *tye*.

24 5"3 2. TZ A", U.A AP DO"B'A: AP AU Aq'ER.A 3 L'G ו הקסעיני; היש גיהי ספייפייטף סטייה גפשמיני .

Figure 11. Sample showing א CANADIAN SYLLABICS TLHWE in מק' כאה tikeghatlyeli.

11 היש שיע אייה, סחים פויצע לטייט, לשים ב נהישעיי אייה אייה ביים געיים פוייט לעיים פוייט איים ב געישעיי
daeu du, "E 900_ *
12 an 3 CO 20 DU"O. DU B"3 LB"DO" and de, JE 900_*
13 לא בייש אוייש אויש או
J. J

**Figure 12.** Sample from the Gospel of Mark in Beaver Dene showing È CANADIAN SYLLABICS CARRIER GAA in ⊲dÈ *vakočaile*, ċ CANADIAN SYLLABICS WEST-CREE LAA in ⊲M ċ *ačilai*, and È CANADIAN SYLLABICS CARRIER TTHAA in 4MÈ *yečihai*.

# ເ∈ພ∿ປ ຄາຄ∗

2 6"3 ymde" on tis rige", 6"3 907 dig akdain a

8 אם ספיישי: אם פעיש איים מיחה מיט סיטיאה שאיאה יפ:

4 היש ביטיא סיבדייאיים, פיישי גו'היגי היעים, היש שע סיפי גייפ-טייטייז ה

5 שיש פייק גיאייב, שיש גיציה הק געט ; שיש יפטיחיל, שיש היציה הק פישע ; שיש יפטיחיל, שיש הק פישע :

6 4000 W'S & J'TY LAW J'T'R'S, DE DE L'E'A D'OVA AU .

7 שייש פייק גואזי שישר שייפ, שייש שייפ, שייש ישיתיש יפינואייל, שייש גייפעד. טייש. שיש נחיש אייפ עוויא, שייש גייפעיייל, שייש גייפעיי

8 שייש אש געישיא איש אישאר א אישאר איש אישאר א אישאר איש אישאר איש אישאר אישא

18 איש איפיפיש אייס, אייס,

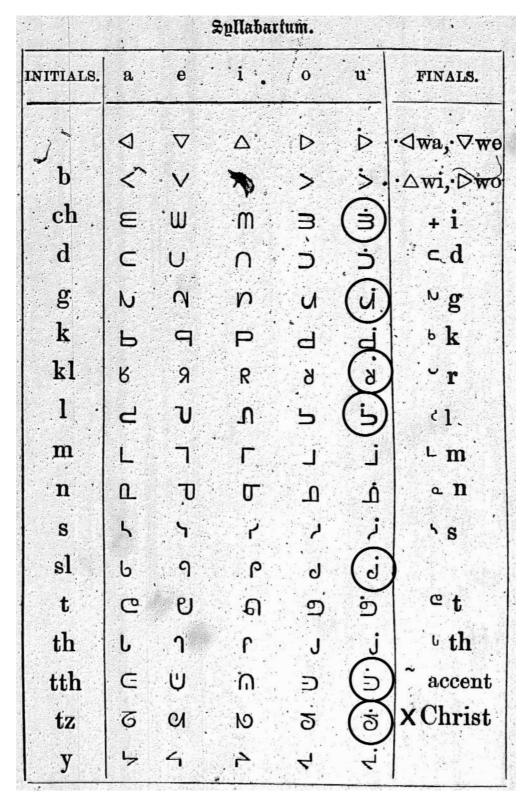
14 T DO"4'D DO"4" S#

15 שיש אפרע האישים פהייע עלדשיים; אישים אישים אפרעיים; אישים אישי אישים אישי

16 5"3 4'600 30"4 AD 10'06 29 5 D'60'5' '000 DD40'D" /ED'0.;

Figure 13. Sample showing יי CANADIAN SYLLABICS R-CREE RWE in ▷ ' חיי ' והיי' והיי' והיי' י canadian syllabics there in גבסשיי *מבמחווץ פוח* sačanihyehti.

**Figure 14.** Sample showing  $\in$  CANADIAN SYLLABICS CARRIER GWA in  $\triangleleft' \in adjia$ .



**Figure 15.** Sample in Chipewyan showing  $\exists$  CANADIAN SYLLABICS CARRIER DENE GEE as Chipewyan  $\exists \check{c}u$ ,  $\dot{\lor}$  CANADIAN SYLLABICS SAYISI HOO as Chipewyan  $\dot{\lor} gu$ ,

 $\exists$  CANADIAN SYLLABICS TLHOO as Chipewyan  $\exists$  *tlu*,

and  $\dot{\delta}$  CANADIAN SYLLABICS SAYISI JUU as Chipewyan  $\dot{\delta}$  *tsu*.

# A. Administrative

1. Title

#### Proposal to encode additional Unified Canadian Aboriginal Syllabics in the UCS

2. Requester's name

UC Berkeley Script Encoding Initiative (Universal Scripts Project); authors: Michael Everson and Chris Harvey 3. Requester type (Member body/Liaison/Individual contribution)

#### Liaison contribution.

#### 4. Submission date

#### 2008-10-06

5. Requester's reference (if applicable)

6. Choose one of the following:

6a. This is a complete proposal

Yes.

6b. More information will be provided later **No**.

# **B.** Technical – General

1. Choose one of the following:

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

No.

1b. Proposed name of script

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

Yes and No.

1d. Name of the existing block

#### Unified Canadian Aboriginal Syllabics Extended-C

2. Number of characters in proposal

#### 43.

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?

#### 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, Fontographer.

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.)?

Yes.

2b. If YES, with whom?

Chris Harvey has worked in partnership with the First Nations' University, one of the northern Saskatchewan Cree Education boards, and a Plains Cree community in Alberta. He also consulted and received guidance from the Dene language centre in the North West Territories.

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?

#### People in Canada.

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

#### Common.

4b. Reference

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

Yes.

5b. If YES, where?

#### In Canada.

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

6b. If YES, is a rationale provided?

Yes.

6c. If YES, reference

Contemporary use, accordance with the Roadmap, and to keep these with the other Syllabics characters which are in the BMP.

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

No.

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

#### No, since they conform to the unification model for Canadian Syllabics.

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

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?