

Typotheque

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North American Syllabics

Proposed changes to the
representative glyphs of the
Unified Canadian Aboriginal
Syllabics code charts

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1 PROPOSED CHANGES

The following proposal requests 186 changes to the representative glyphs in the official code charts of the Unified Canadian Aboriginal Syllabics main and extended blocks. The proposed representative glyph changes have been provided in the following section with associated code points and corresponding character names with annotations, following the current code chart names list. In order to organize multiple issue categories pertaining to the proposed representative glyph changes, a colour coding system has been applied to each code chart showing in this document to identify and group such issues for clarity during the review process. A legend has been provided at the foot of each code chart page for easy reference to the colour coding system used.

This proposal requests the disunified Carrier and Sayisi characters be denoted with specific subheadings in the code chart names list, as suggested in the names list provided in the following section. The descriptor “Dene” has been applied to certain subheadings in cases where the disunified Carrier and Sayisi characters are shared with other Dene Syllabics orthographies in the names list in this section.

In addition to the proposed representative glyph changes, this document suggests that the vertical positioning of the Carrier finals characters should be noted in the Core Spec. An example of the correct vertical positioning of Carrier finals glyphs has been provided in the following section.

The author has prepared a style-matched font for the purpose of implementing into the code charts.

1400

Unified Canadian Aboriginal Syllabics

14DF

	140	141	142	143	144	145	146	147	148	149	14A	14B	14C	14D
0														
1														
2														
3														
4														
5														
6														
7														
8														
9														
A														
B														
C														
D														
E														
F														

Legend

Vertical position change (finals)

14E0

Unified Canadian Aboriginal Syllabics

15AF

	14E	14F	150	151	152	153	154	155	156	157	158	159	15A
0	𐀀 14E0	𐀁 14F0	𐀂 1500	𐀃 1510	𐀄 1520	𐀅 1530	𐀆 1540	𐀇 1550	𐀈 1560	𐀉 1570	𐀊 1580	𐀋 1590	𐀌 15A0
1	𐀍 14E1	𐀎 14F1	𐀏 1501	𐀐 1511	𐀑 1521	𐀒 1531	x 1541	𐀔 1551	𐀕 1561	𐀖 1571	𐀗 1581	𐀘 1591	𐀙 15A1
2	𐀚 14E2	𐀛 14F2	𐀜 1502	𐀝 1512	𐀞 1522	𐀟 1532	𐀠 1542	𐀡 1552	𐀢 1562	𐀣 1572	𐀤 1582	𐀥 1592	𐀦 15A2
3	𐀧 14E3	𐀨 14F3	𐀩 1503	𐀪 1513	𐀫 1523	𐀬 1533	𐀭 1543	𐀮 1553	𐀯 1563	𐀰 1573	𐀱 1583	𐀲 1593	𐀳 15A3
4	𐀴 14E4	𐀵 14F4	𐀶 1504	𐀷 1514	𐀸 1524	𐀹 1534	𐀺 1544	𐀻 1554	𐀼 1564	𐀽 1574	𐀾 1584	𐀿 1594	𐁀 15A4
5	𐁁 14E5	𐁂 14F5	𐁃 1505	𐁄 1515	𐁅 1525	𐁆 1535	𐁇 1545	𐁈 1555	𐁉 1565	𐁊 1575	𐁋 1585	𐁌 1595	𐁍 15A5
6	𐁎 14E6	𐁏 14F6	s 1506	𐁑 1516	𐁒 1526	𐁓 1536	𐁔 1546	𐁕 1556	𐁖 1566	𐁗 1576	𐁘 1586	𐁙 1596	𐁚 15A6
7	𐁛 14E7	𐁜 14F7	𐁝 1507	𐁞 1517	𐁟 1527	𐁠 1537	𐁡 1547	𐁢 1557	𐁣 1567	𐁤 1577	𐁥 1587	𐁦 1597	𐁧 15A7
8	𐁨 14E8	𐁩 14F8	𐁪 1508	𐁫 1518	𐁬 1528	𐁭 1538	𐁮 1548	𐁯 1558	𐁰 1568	𐁱 1578	𐁲 1588	𐁳 1598	𐁴 15A8
9	𐁵 14E9	𐁶 14F9	𐁷 1509	𐁸 1519	𐁹 1529	𐁺 1539	𐁻 1549	𐁼 1559	𐁽 1569	𐁾 1579	𐁿 1589	𐂀 1599	𐂁 15A9
A	𐂂 14EA	𐂃 14FA	𐂄 150A	𐂅 151A	𐂆 152A	𐂇 153A	𐂈 154A	𐂉 155A	𐂊 156A	𐂋 157A	𐂌 158A	𐂍 159A	𐂎 15AA
B	𐂏 14EB	𐂐 14FB	𐂑 150B	𐂒 151B	𐂓 152B	𐂔 153B	𐂕 154B	𐂖 155B	𐂗 156B	𐂘 157B	𐂙 158B	𐂚 159B	𐂛 15AB
C	𐂜 14EC	𐂝 14FC	𐂞 150C	𐂟 151C	𐂠 152C	𐂡 153C	𐂢 154C	𐂣 155C	𐂤 156C	𐂥 157C	𐂦 158C	𐂧 159C	𐂨 15AC
D	𐂩 14ED	𐂪 14FD	𐂫 150D	𐂬 151D	𐂭 152D	𐂮 153D	𐂯 154D	𐂰 155D	𐂱 156D	x 157D	𐂲 158D	𐂳 159D	𐂴 15AD
E	𐂵 14EE	𐂶 14FE	𐂷 150E	𐂸 151E	𐂹 152E	𐂺 153E	𐂻 154E	𐂼 155E	𐂽 156E	𐂾 157E	𐂿 158E	𐃀 159E	𐃁 15AE
F	𐃂 14EF	𐃃 14FF	𐃄 150F	𐃅 151F	𐃆 152F	M 153F	𐃈 154F	𐃉 155F	** 156F	𐃋 157F	𐃌 158F	𐃍 159F	b 15AF

Legend

■ Vertical position change (finals)

15B0

Unified Canadian Aboriginal Syllabics

167F

	15B	15C	15D	15E	15F	160	161	162	163	164	165	166	167
0	15B0	15C0	15D0	15E0	15F0	1600	1610	1620	1630	1640	1650	1660	1670
1	15B1	15C1	15D1	15E1	15F1	1601	1611	1621	1631	1641	1651	1661	1671
2	15B2	15C2	15D2	15E2	15F2	1602	1612	1622	1632	1642	1652	1662	1672
3	15B3	15C3	15D3	15E3	15F3	1603	1613	1623	1633	1643	1653	1663	1673
4	15B4	15C4	15D4	15E4	15F4	1604	1614	1624	1634	1644	1654	1664	1674
5	15B5	15C5	15D5	15E5	15F5	1605	1615	1625	1635	1645	1655	1665	1675
6	15B6	15C6	15D6	15E6	15F6	1606	1616	1626	1636	1646	1656	1666	1676
7	15B7	15C7	15D7	15E7	15F7	1607	1617	1627	1637	1647	1657	1667	1677
8	15B8	15C8	15D8	15E8	15F8	1608	1618	1628	1638	1648	1658	1668	1678
9	15B9	15C9	15D9	15E9	15F9	1609	1619	1629	1639	1649	1659	1669	1679
A	15BA	15CA	15DA	15EA	15FA	160A	161A	162A	163A	164A	165A	166A	167A
B	15BB	15CB	15DB	15EB	15FB	160B	161B	162B	163B	164B	165B	166B	167B
C	15BC	15CC	15DC	15EC	15FC	160C	161C	162C	163C	164C	165C	166C	167C
D	15BD	15CD	15DD	15ED	15FD	160D	161D	162D	163D	164D	165D	166D	167D
E	15BE	15CE	15DE	15EE	15FE	160E	161E	162E	163E	164E	165E	166E	167E
F	15BF	15CF	15DF	15EF	15FF	160F	161F	162F	163F	164F	165F	166F	167F

Legend

- Glyph shape / proportion change
- Vertical position change (finals)
- Character orientation revision

18B0

Unified Canadian Aboriginal Syllabics Extended

18FF

	18B	18C	18D	18E	18F
0	ᐃᐃᐃ 18B0	ᐃᐃᐃ 18C0	ᐃᐃᐃ 18D0	ᐃᐃᐃ 18E0	ᐃᐃᐃ 18F0
1	ᐃᐃᐃ 18B1	ᐃᐃᐃ 18C1	ᐃᐃᐃ 18D1	ᐃᐃᐃ 18E1	ᐃᐃᐃ 18F1
2	ᐃᐃᐃ 18B2	ᐃᐃᐃ 18C2	ᐃᐃᐃ 18D2	ᐃᐃᐃ 18E2	ᐃᐃᐃ 18F2
3	ᐃᐃᐃ 18B3	ᐃᐃᐃ 18C3	ᐃᐃᐃ 18D3	ᐃᐃᐃ 18E3	ᐃᐃᐃ 18F3
4	ᐃᐃᐃ 18B4	ᐃᐃᐃ 18C4	ᐃᐃᐃ 18D4	ᐃᐃᐃ 18E4	ᐃᐃᐃ 18F4
5	ᐃᐃᐃ 18B5	ᐃᐃᐃ 18C5	ᐃᐃᐃ 18D5	ᐃᐃᐃ 18E5	ᐃᐃᐃ 18F5
6	ᐃᐃᐃ 18B6	ᐃᐃᐃ 18C6	ᐃᐃᐃ 18D6	ᐃᐃᐃ 18E6	
7	ᐃᐃᐃ 18B7	ᐃᐃᐃ 18C7	ᐃᐃᐃ 18D7	ᐃᐃᐃ 18E7	
8	ᐃᐃᐃ 18B8	ᐃᐃᐃ 18C8	ᐃᐃᐃ 18D8	ᐃᐃᐃ 18E8	
9	ᐃᐃᐃ 18B9	ᐃᐃᐃ 18C9	ᐃᐃᐃ 18D9	ᐃᐃᐃ 18E9	
A	ᐃᐃᐃ 18BA	ᐃᐃᐃ 18CA	ᐃᐃᐃ 18DA	ᐃᐃᐃ 18EA	
B	ᐃᐃᐃ 18BB	ᐃᐃᐃ 18CB	ᐃᐃᐃ 18DB	ᐃᐃᐃ 18EB	
C	ᐃᐃᐃ 18BC	ᐃᐃᐃ 18CC	ᐃᐃᐃ 18DC	ᐃᐃᐃ 18EC	
D	ᐃᐃᐃ 18BD	ᐃᐃᐃ 18CD	ᐃᐃᐃ 18DD	ᐃᐃᐃ 18ED	
E	ᐃᐃᐃ 18BE	ᐃᐃᐃ 18CE	ᐃᐃᐃ 18DE	ᐃᐃᐃ 18EE	
F	ᐃᐃᐃ 18BF	ᐃᐃᐃ 18CF	ᐃᐃᐃ 18DF	ᐃᐃᐃ 18EF	

Legend

█ Glyph shape / proportion change

█ Vertical position change (finals)

█ Character orientation revision

1400

Unified Canadian Aboriginal Syllabics

160E

Final for Dene and Carrier

...
144B ᕈ CANADIAN SYLLABICS CARRIER H
 • vertically centered at midline

Final for Carrier

...
14D1 ᕐ CANADIAN SYLLABICS CARRIER NG
 • vertically centered at midline

Final for Dene and Carrier

...
1506 ᕐ CANADIAN SYLLABICS ATHAPASCAN S
 • vertically centered at midline

Syllables for Dene and Sayisi

...
15C0 ᕐ CANADIAN SYLLABICS SAYISI HE
15C1 ᕐ CANADIAN SYLLABICS SAYISI HI
15C2 ᕐ CANADIAN SYLLABICS SAYISI HO
 • Sayisi (HU)
15C3 ᕐ CANADIAN SYLLABICS SAYISI HA

Syllables for Carrier

15C4 ᕐ CANADIAN SYLLABICS CARRIER GHU
15C5 ᕐ CANADIAN SYLLABICS CARRIER GHO
15C6 ᕐ CANADIAN SYLLABICS CARRIER GHE
15C7 ᕐ CANADIAN SYLLABICS CARRIER GHEE
15C8 ᕐ CANADIAN SYLLABICS CARRIER GHI
15C9 ᕐ CANADIAN SYLLABICS CARRIER GHA
15CA ᕐ CANADIAN SYLLABICS CARRIER RU
15CB ᕐ CANADIAN SYLLABICS CARRIER RO
15CC ᕐ CANADIAN SYLLABICS CARRIER RE
15CD ᕐ CANADIAN SYLLABICS CARRIER REE
15CE ᕐ CANADIAN SYLLABICS CARRIER RI
15CF ᕐ CANADIAN SYLLABICS CARRIER RA
15D0 ᕐ CANADIAN SYLLABICS CARRIER WU
15D1 ᕐ CANADIAN SYLLABICS CARRIER WO
15D2 ᕐ CANADIAN SYLLABICS CARRIER WE
15D3 ᕐ CANADIAN SYLLABICS CARRIER WEE
15D4 ᕐ CANADIAN SYLLABICS CARRIER WI
15D5 ᕐ CANADIAN SYLLABICS CARRIER WA
15D6 ᕐ CANADIAN SYLLABICS CARRIER HWU
15D7 ᕐ CANADIAN SYLLABICS CARRIER HWO
15D8 ᕐ CANADIAN SYLLABICS CARRIER HWE
15D9 ᕐ CANADIAN SYLLABICS CARRIER HWEE
15DA ᕐ CANADIAN SYLLABICS CARRIER HWI
15DB ᕐ CANADIAN SYLLABICS CARRIER HWA
15DC ᕐ CANADIAN SYLLABICS CARRIER THU
15DD ᕐ CANADIAN SYLLABICS CARRIER THO
15DE ᕐ CANADIAN SYLLABICS CARRIER THE
15DF ᕐ CANADIAN SYLLABICS CARRIER THEE
15E0 ᕐ CANADIAN SYLLABICS CARRIER THI
15E1 ᕐ CANADIAN SYLLABICS CARRIER THA

15E2 ᕐ CANADIAN SYLLABICS CARRIER TTU
15E3 ᕐ CANADIAN SYLLABICS CARRIER TTO
15E4 ᕐ CANADIAN SYLLABICS CARRIER TTE
15E5 ᕐ CANADIAN SYLLABICS CARRIER TTEE
15E6 ᕐ CANADIAN SYLLABICS CARRIER TTI
15E7 ᕐ CANADIAN SYLLABICS CARRIER TTA
15E8 ᕐ CANADIAN SYLLABICS CARRIER PU
15E9 ᕐ CANADIAN SYLLABICS CARRIER PO
15EA ᕐ CANADIAN SYLLABICS CARRIER PE
15EB ᕐ CANADIAN SYLLABICS CARRIER PEE
15EC ᕐ CANADIAN SYLLABICS CARRIER PI
15ED ᕐ CANADIAN SYLLABICS CARRIER PA
15EE ᕐ CANADIAN SYLLABICS CARRIER P
 • vertically centered at midline
15EF ᕐ CANADIAN SYLLABICS CARRIER GU
15F0 ᕐ CANADIAN SYLLABICS CARRIER GO
15F1 ᕐ CANADIAN SYLLABICS CARRIER GE
15F2 ᕐ CANADIAN SYLLABICS CARRIER GEE
15F3 ᕐ CANADIAN SYLLABICS CARRIER GI
15F4 ᕐ CANADIAN SYLLABICS CARRIER GA
15F5 ᕐ CANADIAN SYLLABICS CARRIER KHU
15F6 ᕐ CANADIAN SYLLABICS CARRIER KHO
15F7 ᕐ CANADIAN SYLLABICS CARRIER KHE
15F8 ᕐ CANADIAN SYLLABICS CARRIER KHEE
15F9 ᕐ CANADIAN SYLLABICS CARRIER KHI
15FA ᕐ CANADIAN SYLLABICS CARRIER KHA
15FB ᕐ CANADIAN SYLLABICS CARRIER KKHU
15FC ᕐ CANADIAN SYLLABICS CARRIER KKO
15FD ᕐ CANADIAN SYLLABICS CARRIER KKE
15FE ᕐ CANADIAN SYLLABICS CARRIER KKEE
15FF ᕐ CANADIAN SYLLABICS CARRIER KKI
1600 ᕐ CANADIAN SYLLABICS CARRIER KKA
1601 ᕐ CANADIAN SYLLABICS CARRIER KK
 • vertically centered at midline
1602 ᕐ CANADIAN SYLLABICS CARRIER NU
1603 ᕐ CANADIAN SYLLABICS CARRIER NO
1604 ᕐ CANADIAN SYLLABICS CARRIER NE
1605 ᕐ CANADIAN SYLLABICS CARRIER NEE
1606 ᕐ CANADIAN SYLLABICS CARRIER NI
1607 ᕐ CANADIAN SYLLABICS CARRIER NA
1608 ᕐ CANADIAN SYLLABICS CARRIER MU
1609 ᕐ CANADIAN SYLLABICS CARRIER MO
160A ᕐ CANADIAN SYLLABICS CARRIER ME
160B ᕐ CANADIAN SYLLABICS CARRIER MEE
160C ᕐ CANADIAN SYLLABICS CARRIER MI
160D ᕐ CANADIAN SYLLABICS CARRIER MA
160E ᕐ CANADIAN SYLLABICS CARRIER YU
160F ᕐ CANADIAN SYLLABICS CARRIER YO
1610 ᕐ CANADIAN SYLLABICS CARRIER YE
1611 ᕐ CANADIAN SYLLABICS CARRIER YEE
1612 ᕐ CANADIAN SYLLABICS CARRIER YI
1613 ᕐ CANADIAN SYLLABICS CARRIER YA
1614 ᕐ CANADIAN SYLLABICS CARRIER JU
 • Athapascan (ZA), Sayisi (TZO),
 South Slavey (DHA)

160F

Unified Canadian Aboriginal Syllabics

166C

Syllables for Dene and Sayisi

- 1615 ǝ CANADIAN SYLLABICS SAYISI JU
 • Athapascan (ZO), Sayisi (TZU),
 South Slavey (DHO)

Syllables for Carrier

- 1616 ǫ CANADIAN SYLLABICS CARRIER JO
 1617 ǫ̇ CANADIAN SYLLABICS CARRIER JE
 1618 ǫ̈ CANADIAN SYLLABICS CARRIER JEE
 1619 ǫ̉ CANADIAN SYLLABICS CARRIER JI

Syllables for Dene and Sayisi

- 161A ǫ̊ CANADIAN SYLLABICS SAYISI JI
 • Athapascan (ZE), Sayisi (TZE),
 South Slavey (DHE)

Syllables for Carrier

- 161B ǫ̋ CANADIAN SYLLABICS CARRIER JA
 • Athapascan (ZI), Sayisi (TZI),
 South Slavey (DHI)
- 161C ǫ̌ CANADIAN SYLLABICS CARRIER JJU
 161D ǫ̍ CANADIAN SYLLABICS CARRIER JJO
 161E ǫ̎ CANADIAN SYLLABICS CARRIER JJE
 161F ǫ̏ CANADIAN SYLLABICS CARRIER JJEE
 1620 ǫ̐ CANADIAN SYLLABICS CARRIER JJI
 1621 ǫ̑ CANADIAN SYLLABICS CARRIER JJA
 1622 ǫ̒ CANADIAN SYLLABICS CARRIER LU
 1623 ǫ̓ CANADIAN SYLLABICS CARRIER LO
 1624 ǫ̔ CANADIAN SYLLABICS CARRIER LE
 1625 ǫ̕ CANADIAN SYLLABICS CARRIER LEE
 1626 ǫ̖ CANADIAN SYLLABICS CARRIER LI
 1627 ǫ̗ CANADIAN SYLLABICS CARRIER LA
 1628 ǫ̘ CANADIAN SYLLABICS CARRIER DLU
 1629 ǫ̙ CANADIAN SYLLABICS CARRIER DLO
 162A ǫ̚ CANADIAN SYLLABICS CARRIER DLE
 162B ǫ̛ CANADIAN SYLLABICS CARRIER DLEE
 162C ǫ̜ CANADIAN SYLLABICS CARRIER DLI
 162D ǫ̝ CANADIAN SYLLABICS CARRIER DLA
 162E ǫ̞ CANADIAN SYLLABICS CARRIER LHU
 162F ǫ̟ CANADIAN SYLLABICS CARRIER LHO
 1630 ǫ̠ CANADIAN SYLLABICS CARRIER LHE
 1631 ǫ̡ CANADIAN SYLLABICS CARRIER LHEE
 1632 ǫ̢ CANADIAN SYLLABICS CARRIER LHI
 1633 ǫ̣ CANADIAN SYLLABICS CARRIER LHA
 1634 ǫ̤ CANADIAN SYLLABICS CARRIER TLHU
 1635 ǫ̥ CANADIAN SYLLABICS CARRIER TLHO
 1636 ǫ̦ CANADIAN SYLLABICS CARRIER TLHE
 1637 ǫ̧ CANADIAN SYLLABICS CARRIER TLHEE
 1638 ǫ̨ CANADIAN SYLLABICS CARRIER THLI
 1639 ǫ̩ CANADIAN SYLLABICS CARRIER THLA
 163A ǫ̪ CANADIAN SYLLABICS CARRIER TLU
 163B ǫ̫ CANADIAN SYLLABICS CARRIER TLO
 163C ǫ̬ CANADIAN SYLLABICS CARRIER TLE
 163D ǫ̭ CANADIAN SYLLABICS CARRIER TLEE
 163E ǫ̮ CANADIAN SYLLABICS CARRIER TLI
 163F ǫ̯ CANADIAN SYLLABICS CARRIER TLA
 1640 ǫ̰ CANADIAN SYLLABICS CARRIER ZU
 1641 ǫ̱ CANADIAN SYLLABICS CARRIER ZO

- 1642 ǫ̲ CANADIAN SYLLABICS CARRIER ZEE
 1643 ǫ̳ CANADIAN SYLLABICS CARRIER ZEE
 1644 ǫ̴ CANADIAN SYLLABICS CARRIER ZI
 1645 ǫ̵ CANADIAN SYLLABICS CARRIER ZA
 1646 ǫ̶ CANADIAN SYLLABICS CARRIER Z
 • vertically centered at midline
- 1647 ǫ̷ CANADIAN SYLLABICS CARRIER INITIAL Z
 • vertically centered at midline
- 1648 ǫ̸ CANADIAN SYLLABICS CARRIER DZU
 1649 ǫ̹ CANADIAN SYLLABICS CARRIER DZO
 164A ǫ̺ CANADIAN SYLLABICS CARRIER DZE
 164B ǫ̻ CANADIAN SYLLABICS CARRIER DZEE
 164C ǫ̼ CANADIAN SYLLABICS CARRIER DZI
 164D ǫ̽ CANADIAN SYLLABICS CARRIER DZA
 164E ǫ̾ CANADIAN SYLLABICS CARRIER SU
 164F ǫ̿ CANADIAN SYLLABICS CARRIER SO
 1650 ǫ̿ CANADIAN SYLLABICS CARRIER SE
 1651 ǫ̿ CANADIAN SYLLABICS CARRIER SEE
 1652 ǫ̿ CANADIAN SYLLABICS CARRIER SI
 1653 ǫ̿ CANADIAN SYLLABICS CARRIER SA
 1654 ǫ̿ CANADIAN SYLLABICS CARRIER SHU
 1655 ǫ̿ CANADIAN SYLLABICS CARRIER SHO
 1656 ǫ̿ CANADIAN SYLLABICS CARRIER SHE
 1657 ǫ̿ CANADIAN SYLLABICS CARRIER SHEE
 1658 ǫ̿ CANADIAN SYLLABICS CARRIER SHI
 1659 ǫ̿ CANADIAN SYLLABICS CARRIER SHA
 165A ǫ̿ CANADIAN SYLLABICS CARRIER SH
 • vertically centered at midline
- 165B ǫ̿ CANADIAN SYLLABICS CARRIER TSU
 165C ǫ̿ CANADIAN SYLLABICS CARRIER TSO
 165D ǫ̿ CANADIAN SYLLABICS CARRIER TSE
 165E ǫ̿ CANADIAN SYLLABICS CARRIER TSEE
 165F ǫ̿ CANADIAN SYLLABICS CARRIER TSI
 1660 ǫ̿ CANADIAN SYLLABICS CARRIER TSA
 1661 ǫ̿ CANADIAN SYLLABICS CARRIER CHU
 1662 ǫ̿ CANADIAN SYLLABICS CARRIER CHO
 1663 ǫ̿ CANADIAN SYLLABICS CARRIER CHE
 1664 ǫ̿ CANADIAN SYLLABICS CARRIER CHEE
 1665 ǫ̿ CANADIAN SYLLABICS CARRIER CHI
 1666 ǫ̿ CANADIAN SYLLABICS CARRIER CHA
 1667 ǫ̿ CANADIAN SYLLABICS CARRIER TTU
 1668 ǫ̿ CANADIAN SYLLABICS CARRIER TTU
 1669 ǫ̿ CANADIAN SYLLABICS CARRIER TTSE
 166A ǫ̿ CANADIAN SYLLABICS CARRIER TTSEE
 166B ǫ̿ CANADIAN SYLLABICS CARRIER TTSI
 166C ǫ̿ CANADIAN SYLLABICS CARRIER TTSA

...

18B0

Unified Canadian Aboriginal Syllabics Extended

18F5

Syllables for Cree and Ojibway

...

18DB ᓄ CANADIAN SYLLABICS OJIBWAY SH
 • should follow i-vowel orientation position

18DC ᓂ CANADIAN SYLLABICS EASTERN W

18DD ᓃ CANADIAN SYLLABICS WESTERN W

...

~~Syllables for Beaver Dene, Hare Dene, and Chipewyan Dene~~

Syllables for Dene and Carrier

...

18EC ᓇ CANADIAN SYLLABICS SAYISI HOO
 • Chipewyan Dene (GU)

18ED ᓈ CANADIAN SYLLABICS CARRIER GWO
 • Beaver Dene (CHYE)

18EE ᓉ CANADIAN SYLLABICS CARRIER GEE
 • Chipewyan Dene (CHU)

18EF ᓊ CANADIAN SYLLABICS CARRIER GAA
 • Beaver Dene (CHAI)

18FO ᓋ CANADIAN SYLLABICS CARRIER GWA
 • Hare Dene (SHYA)

18F1 ᓌ CANADIAN SYLLABICS SAYISI JUU
 • Chipewyan Dene (TSU)

18F2 ᓍ CANADIAN SYLLABICS CARRIER JWA
 • Beaver Dene (TSYE)

Finals for Dene and Carrier

...

18F5 ᓎ CANADIAN SYLLABICS CARRIER DENTAL S
 • vertically centered at midline

■ Addition

1.1 CARRIER CHARACTER NOTES FOR CORE SPEC

This proposal suggests noting the vertical positioning behaviour of the Carrier finals characters in the Unicode Core Specification. In the Carrier syllabics, finals are expected to appear vertically positioned at the centre point between the full height of the syllabic characters and the baseline. This is opposed to the standard vertical positioning within UCAS for finals characters, where finals are always positioned at the top position.

The diagram below demonstrates the correct Carrier finals vertical positioning (1), and the way the distinct Carrier finals are incorrectly positioned in the current chart font for UCAS (2):

❶ CORRECT FINALS POSITION



❷ INCORRECT FINALS POSITION



legend

- Glyph shape / proportion change
- Vertical position change (finals)
- Glyph orientation change

2 CHANGES FOR CARRIER

This proposal requests revisions to the following representative glyphs for Carrier, which corrects errors in the proportions of the character shapes, character orientation, and the vertical positioning of the final consonant marks, restoring the intention of the original script encoding committee for the disunified Carrier characters in UCAS.

h	l	v	u	z	z	s	s	\$						
h	p	kk	ng	z	z	s	s	sh						
ghu	gho	ghe	ghee	ghi	gha	ru	ro	re	ree	ri	ra			
wu	wo	we	wee	wi	wa	hwu	hwo	hwe	hwee	hwi	hwa			
ttu	tto	tte	ttee	tti	tta	pu	po	pe	pee	pi	pa			
gu	go	ge	gee	gi	ga	khu	kho	khe	khee	khi	kha			
kku	kko	kke	kkee	kki	kka	nu	no	ne	nee	ni	na			
mu	mo	me	mee	mi	ma	yu	yo	ye	yee	yi	ya			
ju	jo	je	jee	ji	ja	jju	jjo	jje	jjee	jji	jja			
lu	lo	le	lee	li	la	dlu	dlo	dle	dlee	dli	dla			
lhu	lho	lhe	lhee	lhi	lha	tlhu	tlho	tlhe	tlhee	tlhi	tlha			
tlu	tlo	tle	tlee	tli	tla	zu	zo	ze	zee	zi	za			
dzu	dzo	dze	dzee	dzi	dza	su	so	se	see	si	sa			
shu	sho	she	shee	shi	sha	tsu	tso	tse	tsee	tsi	tsha			
chu	cho	che	chee	chi	cha	ttsu	ttso	ttse	ttsee	ttsi	ttsa			
gwu	gee	gaa	gwa	jwa										

The Carrier Syllabics should appear uniform in height and width – without variation between full size and medium size characters, and the final pure consonant marks should be vertically positioned at the centre point between the top height of the full syllabics, and the baseline. (figures 1, 4 and 8) An example of the correct and incorrect vertical position of Carrier finals is shown on p 21. Additionally, there are two errors in representative glyph orientation that have been proposed for changing. (figure 5)

In order to provide clarity for implementers towards the correct vertical positioning of the 9 Carrier finals glyphs, annotations have been provided in the names list on pp 8–10 for the applicable glyphs. Additionally, note that some of the characters discussed in this section are also used by other Dene orthographies in UCAS in the same manner as is preferred by Carrier.

The requested changes to the code chart font have been illustrated on pp 12–17, with attestations and descriptions in the sections to follow. Additionally, comments have been made in section 2.5 on p 23 to indicate the correct design of Carrier glyphs.

Guide to figures for proposed representative glyph changes for Carrier

144B	h	CANADIAN SYLLABICS CARRIER H	(FIG. 1, 8, 9, 10, 12, 13, 14, 15, 17)	161E	ᑖ	CANADIAN SYLLABICS CARRIER JJE	(FIG. 9, 10, 17)
14D1	c	CANADIAN SYLLABICS CARRIER NG	(FIG. 9, 10, 12)	161F	ᑖ	CANADIAN SYLLABICS CARRIER JJEE	(FIG. 1, 9, 10)
1506	s	CANADIAN SYLLABICS ATHAPASCAN S	(FIG. 6, 7, 8, 9, 10, 11, 12, 13, 16, 17)	1620	ᑖ	CANADIAN SYLLABICS CARRIER JJI	(FIG. 9, 10)
15C4	∨	CANADIAN SYLLABICS CARRIER GHU	(FIG. 9, 10)	1621	ᑖ	CANADIAN SYLLABICS CARRIER JJA	(FIG. 9, 10)
15C5	Δ	CANADIAN SYLLABICS CARRIER GHO	(FIG. 9, 10)	1622	ᑖ	CANADIAN SYLLABICS CARRIER LU	(FIG. 9, 10)
15C6	∨	CANADIAN SYLLABICS CARRIER GHE	(FIG. 9, 10)	1623	ᑖ	CANADIAN SYLLABICS CARRIER LO	(FIG. 9, 10, 17)
15C7	∨	CANADIAN SYLLABICS CARRIER GHEE	(FIG. 9, 10)	1624	ᑖ	CANADIAN SYLLABICS CARRIER LE	(FIG. 9, 10, 13, 15)
15C8	∨	CANADIAN SYLLABICS CARRIER GHI	(FIG. 9, 10)	1625	ᑖ	CANADIAN SYLLABICS CARRIER LEE	(FIG. 8, 9, 10, 15)
15C9	∨	CANADIAN SYLLABICS CARRIER GH	(FIG. 9, 10)	1626	ᑖ	CANADIAN SYLLABICS CARRIER LI	(FIG. 9, 10, 13, 17)
15CA	∨	CANADIAN SYLLABICS CARRIER RU	(FIG. 9, 10)	1627	ᑖ	CANADIAN SYLLABICS CARRIER LA	(FIG. 9, 10, 11, 12, 13, 15)
15CB	Δ	CANADIAN SYLLABICS CARRIER RO	(FIG. 9, 10)	1628	ᑖ	CANADIAN SYLLABICS CARRIER DLU	(FIG. 5, 8, 9)
15CC	∨	CANADIAN SYLLABICS CARRIER RE	(FIG. 9, 10)	1629	ᑖ	CANADIAN SYLLABICS CARRIER DLO	(FIG. 9, 10)
15CD	∨	CANADIAN SYLLABICS CARRIER REE	(FIG. 9, 10)	162A	ᑖ	CANADIAN SYLLABICS CARRIER DLE	(FIG. 9, 10)
15CE	∨	CANADIAN SYLLABICS CARRIER RI	(FIG. 9, 10)	162B	ᑖ	CANADIAN SYLLABICS CARRIER DLEE	(FIG. 1, 9, 10, 13)
15CF	∨	CANADIAN SYLLABICS CARRIER RA	(FIG. 9, 10, 12)	162C	ᑖ	CANADIAN SYLLABICS CARRIER DLI	(FIG. 9, 10, 16)
15D0	∨	CANADIAN SYLLABICS CARRIER WU	(FIG. 9, 10)	162D	ᑖ	CANADIAN SYLLABICS CARRIER DLA	(FIG. 9, 10, 17)
15D1	∨	CANADIAN SYLLABICS CARRIER WO	(FIG. 9, 10)	162E	ᑖ	CANADIAN SYLLABICS CARRIER LHU	(FIG. 9, 10)
15D2	∨	CANADIAN SYLLABICS CARRIER WE	(FIG. 9, 10)	162F	ᑖ	CANADIAN SYLLABICS CARRIER LHO	(FIG. 9, 10)
15D3	∨	CANADIAN SYLLABICS CARRIER WEE	(FIG. 9, 10)	1630	ᑖ	CANADIAN SYLLABICS CARRIER LHE	(FIG. 9, 10)
15D4	∨	CANADIAN SYLLABICS CARRIER WI	(FIG. 9, 10)	1631	ᑖ	CANADIAN SYLLABICS CARRIER LHEE	(FIG. 9, 10)
15D5	∨	CANADIAN SYLLABICS CARRIER WA	(FIG. 9, 10)	1632	ᑖ	CANADIAN SYLLABICS CARRIER LHI	(FIG. 9, 10)
15D6	∨	CANADIAN SYLLABICS CARRIER HWU	(FIG. 9, 10)	1633	ᑖ	CANADIAN SYLLABICS CARRIER LHA	(FIG. 9, 10)
15D7	∨	CANADIAN SYLLABICS CARRIER HWO	(FIG. 9, 10)	1634	ᑖ	CANADIAN SYLLABICS CARRIER TLHU	(FIG. 9, 10)
15D8	∨	CANADIAN SYLLABICS CARRIER HWE	(FIG. 9, 10)	1635	ᑖ	CANADIAN SYLLABICS CARRIER TLHO	(FIG. 9, 10)
15D9	∨	CANADIAN SYLLABICS CARRIER HWE	(FIG. 9, 10)	1636	ᑖ	CANADIAN SYLLABICS CARRIER TLHE	(FIG. 9, 10)
15DA	∨	CANADIAN SYLLABICS CARRIER HWI	(FIG. 9, 10)	1637	ᑖ	CANADIAN SYLLABICS CARRIER TLHEE	(FIG. 9, 10)
15DB	∨	CANADIAN SYLLABICS CARRIER HWA	(FIG. 9, 10, 12)	1638	ᑖ	CANADIAN SYLLABICS CARRIER THLI	(FIG. 2, 9, 10)
15DC	ᑖ	CANADIAN SYLLABICS CARRIER THU	(FIG. 9, 10, 11)	1639	ᑖ	CANADIAN SYLLABICS CARRIER THLA	(FIG. 9, 10)
15DD	ᑖ	CANADIAN SYLLABICS CARRIER THO	(FIG. 9, 10)	163A	ᑖ	CANADIAN SYLLABICS CARRIER THLU	(FIG. 9, 10)
15DE	ᑖ	CANADIAN SYLLABICS CARRIER THE	(FIG. 9, 10, 11)	163B	ᑖ	CANADIAN SYLLABICS CARRIER TLO	(FIG. 5, 9, 10)
15DF	ᑖ	CANADIAN SYLLABICS CARRIER THEE	(FIG. 9, 10)	163C	ᑖ	CANADIAN SYLLABICS CARRIER TLE	(FIG. 9, 10, 14)
15E0	ᑖ	CANADIAN SYLLABICS CARRIER THI	(FIG. 9, 10)	163D	ᑖ	CANADIAN SYLLABICS CARRIER TLEE	(FIG. 9, 10)
15E1	ᑖ	CANADIAN SYLLABICS CARRIER THA	(FIG. 9, 10, 11, 12)	163E	ᑖ	CANADIAN SYLLABICS CARRIER TLI	(FIG. 9, 10)
15E2	ᑖ	CANADIAN SYLLABICS CARRIER TTU	(FIG. 9, 10)	163F	ᑖ	CANADIAN SYLLABICS CARRIER TLA	(FIG. 9, 10, 11, 13)
15E3	ᑖ	CANADIAN SYLLABICS CARRIER TTO	(FIG. 9, 10)	1640	ᑖ	CANADIAN SYLLABICS CARRIER ZU	(FIG. 9, 10)
15E4	ᑖ	CANADIAN SYLLABICS CARRIER TTE	(FIG. 9, 10)	1641	ᑖ	CANADIAN SYLLABICS CARRIER ZO	(FIG. 9, 10)
15E5	ᑖ	CANADIAN SYLLABICS CARRIER TTEE	(FIG. 9, 10, 13, 15)	1642	ᑖ	CANADIAN SYLLABICS CARRIER ZE	(FIG. 1, 9, 10)
15E6	ᑖ	CANADIAN SYLLABICS CARRIER TTI	(FIG. 9, 10, 15)	1643	ᑖ	CANADIAN SYLLABICS CARRIER ZEE	(FIG. 9, 10)
15E7	ᑖ	CANADIAN SYLLABICS CARRIER TTA	(FIG. 9, 10, 11, 12, 13, 17)	1644	ᑖ	CANADIAN SYLLABICS CARRIER ZI	(FIG. 9, 10)
15E8	ᑖ	CANADIAN SYLLABICS CARRIER PU	(FIG. 9, 10)	1645	ᑖ	CANADIAN SYLLABICS CARRIER ZA	(FIG. 9, 10)
15E9	ᑖ	CANADIAN SYLLABICS CARRIER PO	(FIG. 9, 10)	1646	z	CANADIAN SYLLABICS CARRIER Z	(FIG. 6, 7, 8, 9, 10, 13, 15, 18)
15EA	ᑖ	CANADIAN SYLLABICS CARRIER PE	(FIG. 9, 10, 11, 13)	1647	z	CANADIAN SYLLABICS CARRIER INITIAL Z	(FIG. 9, 10)
15EB	ᑖ	CANADIAN SYLLABICS CARRIER PEE	(FIG. 9, 10, 14, 16)	1648	ᑖ	CANADIAN SYLLABICS CARRIER DZU	(FIG. 9, 10)
15EC	ᑖ	CANADIAN SYLLABICS CARRIER PI	(FIG. 9, 10, 16)	1649	ᑖ	CANADIAN SYLLABICS CARRIER DZO	(FIG. 9, 10)
15ED	ᑖ	CANADIAN SYLLABICS CARRIER PA	(FIG. 8, 9, 10, 11, 12, 13, 14, 16)	164A	ᑖ	CANADIAN SYLLABICS CARRIER DZE	(FIG. 9, 10)
15EE	ᑖ	CANADIAN SYLLABICS CARRIER P	(FIG. 9, 10, 13, 18)	164B	ᑖ	CANADIAN SYLLABICS CARRIER DZEE	(FIG. 9, 10)
15EF	ᑖ	CANADIAN SYLLABICS CARRIER GU	(FIG. 9, 10)	164C	ᑖ	CANADIAN SYLLABICS CARRIER DZI	(FIG. 9, 10)
15F0	ᑖ	CANADIAN SYLLABICS CARRIER GO	(FIG. 9, 10)	164D	ᑖ	CANADIAN SYLLABICS CARRIER DZA	(FIG. 9, 10)
15F1	ᑖ	CANADIAN SYLLABICS CARRIER GE	(FIG. 8, 9, 10, 13, 17)	164E	ᑖ	CANADIAN SYLLABICS CARRIER SU	(FIG. 9, 10, 11)
15F2	ᑖ	CANADIAN SYLLABICS CARRIER GEE	(FIG. 9, 10)	164F	ᑖ	CANADIAN SYLLABICS CARRIER SO	(FIG. 9, 10)
15F3	ᑖ	CANADIAN SYLLABICS CARRIER GI	(FIG. 9, 10)	1650	ᑖ	CANADIAN SYLLABICS CARRIER SE	(FIG. 9, 10, 17)
15F4	ᑖ	CANADIAN SYLLABICS CARRIER GA	(FIG. 9, 10, 12, 13)	1651	ᑖ	CANADIAN SYLLABICS CARRIER SEE	(FIG. 9, 10, 13)
15F5	ᑖ	CANADIAN SYLLABICS CARRIER KHU	(FIG. 9, 10)	1652	ᑖ	CANADIAN SYLLABICS CARRIER SI	(FIG. 9, 10, 17)
15F6	ᑖ	CANADIAN SYLLABICS CARRIER KHO	(FIG. 9, 10)	1653	ᑖ	CANADIAN SYLLABICS CARRIER SA	(FIG. 9, 10, 12, 15)
15F7	ᑖ	CANADIAN SYLLABICS CARRIER KHE	(FIG. 9, 10, 15)	1654	ᑖ	CANADIAN SYLLABICS CARRIER SHU	(FIG. 9, 10)
15F8	ᑖ	CANADIAN SYLLABICS CARRIER KHEE	(FIG. 9, 10, 13)	1655	ᑖ	CANADIAN SYLLABICS CARRIER SHO	(FIG. 9, 10)
15F9	ᑖ	CANADIAN SYLLABICS CARRIER KHI	(FIG. 9, 10)	1656	ᑖ	CANADIAN SYLLABICS CARRIER SHE	(FIG. 9, 10)
15FA	ᑖ	CANADIAN SYLLABICS CARRIER KHA	(FIG. 9, 10, 11, 12, 18)	1657	ᑖ	CANADIAN SYLLABICS CARRIER SHEE	(FIG. 9, 10, 13)
15FB	ᑖ	CANADIAN SYLLABICS CARRIER KKU	(FIG. 9, 10)	1658	ᑖ	CANADIAN SYLLABICS CARRIER SHI	(FIG. 9, 10)
15FC	ᑖ	CANADIAN SYLLABICS CARRIER KKO	(FIG. 9, 10)	1659	ᑖ	CANADIAN SYLLABICS CARRIER SHA	(FIG. 9, 10, 12)
15FD	ᑖ	CANADIAN SYLLABICS CARRIER KKE	(FIG. 9, 10, 13, 15, 17)	165A	ᑖ	CANADIAN SYLLABICS CARRIER SH	(FIG. 9, 10, 12)
15FE	ᑖ	CANADIAN SYLLABICS CARRIER KKEE	(FIG. 9, 10, 17)	165B	ᑖ	CANADIAN SYLLABICS CARRIER TSU	(FIG. 9, 10)
15FF	ᑖ	CANADIAN SYLLABICS CARRIER KKI	(FIG. 9, 10)	165C	ᑖ	CANADIAN SYLLABICS CARRIER TSO	(FIG. 9, 10)
1600	ᑖ	CANADIAN SYLLABICS CARRIER KKA	(FIG. 9, 10, 12)	165D	ᑖ	CANADIAN SYLLABICS CARRIER TSE	(FIG. 9, 10)
1601	ᑖ	CANADIAN SYLLABICS CARRIER KK	(FIG. 9, 10, 13, 17)	165E	ᑖ	CANADIAN SYLLABICS CARRIER TSEE	(FIG. 9, 10)
1602	ᑖ	CANADIAN SYLLABICS CARRIER NU	(FIG. 9, 10, 14)	165F	ᑖ	CANADIAN SYLLABICS CARRIER TSI	(FIG. 9, 10)
1603	ᑖ	CANADIAN SYLLABICS CARRIER NO	(FIG. 9, 10, 13)	1660	ᑖ	CANADIAN SYLLABICS CARRIER TSA	(FIG. 9, 10, 11, 12, 13)
1604	ᑖ	CANADIAN SYLLABICS CARRIER NE	(FIG. 9, 10, 11, 15)	1661	ᑖ	CANADIAN SYLLABICS CARRIER CHU	(FIG. 9, 10)
1605	ᑖ	CANADIAN SYLLABICS CARRIER NEE	(FIG. 9, 10, 14, 15)	1662	ᑖ	CANADIAN SYLLABICS CARRIER CHO	(FIG. 9, 10)
1606	ᑖ	CANADIAN SYLLABICS CARRIER NI	(FIG. 1, 9, 10, 11, 15, 16, 17)	1663	ᑖ	CANADIAN SYLLABICS CARRIER CHE	(FIG. 9, 10, 17)
1607	ᑖ	CANADIAN SYLLABICS CARRIER NA	(FIG. 8, 9, 10, 12)	1664	ᑖ	CANADIAN SYLLABICS CARRIER CHEE	(FIG. 9, 10)
1608	ᑖ	CANADIAN SYLLABICS CARRIER MU	(FIG. 9, 10)	1665	ᑖ	CANADIAN SYLLABICS CARRIER CHI	(FIG. 8, 9, 10, 13)
1609	ᑖ	CANADIAN SYLLABICS CARRIER MO	(FIG. 9, 10)	1666	ᑖ	CANADIAN SYLLABICS CARRIER CHA	(FIG. 9, 10, 12)
160A	ᑖ	CANADIAN SYLLABICS CARRIER ME	(FIG. 9, 10, 13)	1667	ᑖ	CANADIAN SYLLABICS CARRIER TTU	(FIG. 9, 10)
160B	ᑖ	CANADIAN SYLLABICS CARRIER MEE	(FIG. 9, 10, 11)	1668	ᑖ	CANADIAN SYLLABICS CARRIER TTSO	(FIG. 9, 10)
160C	ᑖ	CANADIAN SYLLABICS CARRIER MI	(FIG. 9, 10, 13)	1669	ᑖ	CANADIAN SYLLABICS CARRIER TTSE	(FIG. 9, 10, 11, 13, 17)
160D	ᑖ	CANADIAN SYLLABICS CARRIER MA	(FIG. 9, 10)	166A	ᑖ	CANADIAN SYLLABICS CARRIER TTSEE	(FIG. 9, 10)
160E	ᑖ	CANADIAN SYLLABICS CARRIER YU	(FIG. 9, 10, 13)	166B	ᑖ	CANADIAN SYLLABICS CARRIER TTSI	(FIG. 9, 10, 17)
160F	ᑖ	CANADIAN SYLLABICS CARRIER YO	(FIG. 9, 10)	166C	ᑖ	CANADIAN SYLLABICS CARRIER TTSA	(FIG. 9, 10, 11, 12, 13)
1610	ᑖ	CANADIAN SYLLABICS CARRIER YE	(FIG. 9, 10, 13, 15, 17)	18ED	ᑖ	CANADIAN SYLLABICS CARRIER GWO	(FIG. 19)
1611	ᑖ	CANADIAN SYLLABICS CARRIER YEE	(FIG. 9, 10, 13)			• Beaver Dene (CHYE)	
1612	ᑖ	CANADIAN SYLLABICS CARRIER YI	(FIG. 9, 10, 13, 15, 17, 18)	18EE	ᑖ	CANADIAN SYLLABICS CARRIER GEE	(FIG. 20)
1613	ᑖ	CANADIAN SYLLABICS CARRIER YA	(FIG. 8, 9, 10, 12, 13, 18)			• Chipewyan Dene (CHU)	
1614	ᑖ	CANADIAN SYLLABICS CARRIER JU	(FIG. 9, 10)	18EF	ᑖ	CANADIAN SYLLABICS CARRIER GAA	(FIG. 21)
		• Athapascan (ZA), Sayisi (TZO),				• Beaver Dene (CHAI)	
		• South Slavey (DHA)		18F0	ᑖ	CANADIAN SYLLABICS CARRIER GWA	(FIG. 22)
1615	ᑖ	CANADIAN SYLLABICS SAYISI JU	(FIG. 9, 10)			• Hare Dene (SHYA)	
		• Athapascan (ZO), Sayisi (TZU),		18F2	ᑖ	CANADIAN SYLLABICS CARRIER JWA	(FIG. 21)
		• South Slavey (DHO)				• Beaver Dene (TSYE)	
1616	ᑖ	CANADIAN SYLLABICS CARRIER JO	(FIG. 9, 10)	18F5	ᑖ	CANADIAN SYLLABICS CARRIER DENTAL S	(FIG. 7, 9, 10)
1617	ᑖ	CANADIAN SYLLABICS CARRIER JE	(FIG. 9, 10)				
1618	ᑖ	CANADIAN SYLLABICS CARRIER JEE	(FIG. 9, 10, 13)				
1619	ᑖ	CANADIAN SYLLABICS CARRIER JI	(FIG. 9, 10)				
161B	ᑖ	CANADIAN SYLLABICS CARRIER JA	(FIG. 9, 10, 11, 17)				
161C	ᑖ	CANADIAN SYLLABICS CARRIER JJU	(FIG. 9, 10)				
161D	ᑖ	CANADIAN SYLLABICS CARRIER JJO	(FIG. 9, 10)				

2.1 Proposed changes for Carrier

The following changes have been proposed to the code chart font in order to correct the issues with the representative glyphs for Carrier.

144		144		14D		14D		150		150	
1440		1440		14D0		14D0		1500		1500	
1441		1441		14D1		14D1		1501		1501	
1442		1442		14D2		14D2		1502		1502	
1443		1443		14D3		14D3		1503		1503	
1444		1444		14D4		14D4		1504		1504	
1445		1445		14D5		14D5		1505		1505	
1446		1446		14D6		14D6		1506		1506	
1447		1447		14D7		14D7		1507		1507	
1448		1448		14D8		14D8		1508		1508	
1449		1449		14D9		14D9		1509		1509	
144A		144A		14DA		14DA		150A		150A	
144B		144B		14DB		14DB		150B		150B	
144C		144C		14DC		14DC		150C		150C	
144D		144D		14DD		14DD		150D		150D	
144E		144E		14DE		14DE		150E		150E	
144F		144F		14DF		14DF		150F		150F	

legend

- Vertical position revision (finals)

15C	15D	15E	15F	160	161	162
ᑭ	ᑮ	ᑯ	ᑰ	ᑱ	ᑲ	ᑳ
15C0	15D0	15E0	15F0	1600	1610	1620
ᑴ	ᑵ	ᑶ	ᑷ	ᑸ	ᑹ	ᑺ
15C1	15D1	15E1	15F1	1601	1611	1621
ᑼ	ᑽ	ᑾ	ᑿ	ᑲ	ᑳ	ᑴ
15C2	15D2	15E2	15F2	1602	1612	1622
ᑾ	ᑿ	ᑲ	ᑳ	ᑴ	ᑵ	ᑶ
15C3	15D3	15E3	15F3	1603	1613	1623
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C4	15D4	15E4	15F4	1604	1614	1624
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C5	15D5	15E5	15F5	1605	1615	1625
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C6	15D6	15E6	15F6	1606	1616	1626
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C7	15D7	15E7	15F7	1607	1617	1627
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C8	15D8	15E8	15F8	1608	1618	1628
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C9	15D9	15E9	15F9	1609	1619	1629
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CA	15DA	15EA	15FA	160A	161A	162A
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CB	15DB	15EB	15FB	160B	161B	162B
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CC	15DC	15EC	15FC	160C	161C	162C
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CD	15DD	15ED	15FD	160D	161D	162D
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CE	15DE	15EE	15FE	160E	161E	162E
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CF	15DF	15EF	15FF	160F	161F	162F



15C	15D	15E	15F	160	161	162
ᑭ	ᑮ	ᑯ	ᑰ	ᑱ	ᑲ	ᑳ
15C0	15D0	15E0	15F0	1600	1610	1620
ᑴ	ᑵ	ᑶ	ᑷ	ᑸ	ᑹ	ᑺ
15C1	15D1	15E1	15F1	1601	1611	1621
ᑼ	ᑽ	ᑾ	ᑿ	ᑲ	ᑳ	ᑴ
15C2	15D2	15E2	15F2	1602	1612	1622
ᑾ	ᑿ	ᑲ	ᑳ	ᑴ	ᑵ	ᑶ
15C3	15D3	15E3	15F3	1603	1613	1623
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C4	15D4	15E4	15F4	1604	1614	1624
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C5	15D5	15E5	15F5	1605	1615	1625
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C6	15D6	15E6	15F6	1606	1616	1626
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C7	15D7	15E7	15F7	1607	1617	1627
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C8	15D8	15E8	15F8	1608	1618	1628
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15C9	15D9	15E9	15F9	1609	1619	1629
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CA	15DA	15EA	15FA	160A	161A	162A
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CB	15DB	15EB	15FB	160B	161B	162B
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CC	15DC	15EC	15FC	160C	161C	162C
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CD	15DD	15ED	15FD	160D	161D	162D
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CE	15DE	15EE	15FE	160E	161E	162E
ᑲ	ᑳ	ᑴ	ᑵ	ᑶ	ᑷ	ᑸ
15CF	15DF	15EF	15FF	160F	161F	162F

legend

- Character shape / proportion revision
- Vertical position revision (finals)
- Character orientation revision

163	164	165	166
ᑭ	ᑮ	ᑯ	ᑰ
1630	1640	1650	1660
ᑱ	ᑲ	ᑳ	ᑴ
1631	1641	1651	1661
ᑵ	ᑶ	ᑷ	ᑸ
1632	1642	1652	1662
ᑹ	ᑺ	ᑻ	ᑼ
1633	1643	1653	1663
ᑽ	ᑾ	ᑿ	ᑿ
1634	1644	1654	1664
ᑿ	ᑾ	ᑿ	ᑿ
1635	1645	1655	1665
ᑿ	ᑿ	ᑿ	ᑿ
1636	ᑿ	ᑿ	ᑿ
1646	1656	1666	
ᑿ	ᑿ	ᑿ	ᑿ
1637	ᑿ	ᑿ	ᑿ
1647	1657	1667	
ᑿ	ᑿ	ᑿ	ᑿ
1638	1648	1658	1668
ᑿ	ᑿ	ᑿ	ᑿ
1639	1649	1659	1669
ᑿ	ᑿ	ᑿ	ᑿ
163A	164A	ᑿ	ᑿ
165A	166A		
ᑿ	ᑿ	ᑿ	ᑿ
163B	164B	165B	166B
ᑿ	ᑿ	ᑿ	ᑿ
163C	164C	165C	166C
ᑿ	ᑿ	ᑿ	X
163D	164D	165D	166D
ᑿ	ᑿ	ᑿ	x
163E	164E	165E	166E
ᑿ	ᑿ	ᑿ	ᑿ
163F	164F	165F	166F



163	164	165	166
ᑭ	ᑮ	ᑯ	ᑰ
1630	1640	1650	1660
ᑱ	ᑲ	ᑳ	ᑴ
1631	1641	1651	1661
ᑵ	ᑶ	ᑷ	ᑸ
1632	1642	1652	1662
ᑹ	ᑺ	ᑻ	ᑼ
1633	1643	1653	1663
ᑽ	ᑾ	ᑿ	ᑿ
1634	1644	1654	1664
ᑿ	ᑾ	ᑿ	ᑿ
1635	1645	1655	1665
ᑿ	ᑿ	ᑿ	ᑿ
1636	ᑿ	ᑿ	ᑿ
1646	1656	1666	
ᑿ	ᑿ	ᑿ	ᑿ
1637	ᑿ	ᑿ	ᑿ
1647	1657	1667	
ᑿ	ᑿ	ᑿ	ᑿ
1638	1648	1658	1668
ᑿ	ᑿ	ᑿ	ᑿ
1639	1649	1659	1669
ᑿ	ᑿ	ᑿ	ᑿ
163A	164A	ᑿ	ᑿ
165A	166A		
ᑿ	ᑿ	ᑿ	ᑿ
163B	164B	165B	166B
ᑿ	ᑿ	ᑿ	ᑿ
163C	164C	165C	166C
ᑿ	ᑿ	ᑿ	X
163D	164D	165D	166D
ᑿ	ᑿ	ᑿ	x
163E	164E	165E	166E
ᑿ	ᑿ	ᑿ	ᑿ
163F	164F	165F	166F

legend

- Character shape / proportion revision
- Vertical position revision (finals)
- Character orientation revision

18E	18F
ᑭᑦ 18E0	ᑭᑦ 18F0
ᑭᑦ 18E1	ᑭᑦ 18F1
ᑭᑦ 18E2	ᑭᑦ 18F2
ᑭᑦ 18E3	ᑭᑦ 18F3
ᑭᑦ 18E4	ᑭᑦ 18F4
ᑭᑦ 18E5	ᑭᑦ 18F5
ᑭᑦ 18E6	
ᑭᑦ 18E7	
ᑭᑦ 18E8	
ᑭᑦ 18E9	
ᑭᑦ 18EA	
ᑭᑦ 18EB	
ᑭᑦ 18EC	
ᑭᑦ 18ED	
ᑭᑦ 18EE	
ᑭᑦ 18EF	



18E	18F
ᑭᑦ 18E0	ᑭᑦ 18F0
ᑭᑦ 18E1	ᑭᑦ 18F1
ᑭᑦ 18E2	ᑭᑦ 18F2
ᑭᑦ 18E3	ᑭᑦ 18F3
ᑭᑦ 18E4	ᑭᑦ 18F4
ᑭᑦ 18E5	ᑭᑦ 18F5
ᑭᑦ 18E6	
ᑭᑦ 18E7	
ᑭᑦ 18E8	
ᑭᑦ 18E9	
ᑭᑦ 18EA	
ᑭᑦ 18EB	
ᑭᑦ 18EC	
ᑭᑦ 18ED	
ᑭᑦ 18EE	
ᑭᑦ 18EF	

legend

- Character shape / proportion revision
- Vertical position revision (finals)

The Unicode Consortium
 P.O. Box 391476
 Mountainview, CA 94039-1476
 U.S.A.

7 April 2021

Regarding correcting the representative Carrier syllabics shapes in the Unified Canadian Aboriginal Syllabics in Unicode

Bundada Hoonzoo
 Good Morning,

To begin with, years ago as a young Native person I was taught Carrier or Dakelh Syllabics by the Late Elder Nick Prince. It was his dream or vision that this writing system would carry on. I took this message seriously and passed on what I had learned and shared whenever possible. Together with his son Francois Prince we taught Syllabics in the schools and colleges in Dakelh territory. As technology developed we came across a Dakelh keyboard system from a website called Language Geek which used the Keyman program and word programs, and were able to type and share the Dakelh writing system with the community. Having to use 2 or more programs made it difficult to share with other people although we did our best.

Although the font from the Language Geek website, OskiDakelh, shows the correct appearance of our syllabics characters, when we use our characters to write emails and send text messages in the available syllabics font, we see the wrong characters appear, which do not look the way we expect them to look. In many of these cases, the characters not easy to identify as Dakelh Syllabics characters (for example: ᑕ vs. ᑕ) and make texts in these versions of the characters hard to read. We expect our Dakelh Syllabics to appear in the way they looked in the original system created by Adrien-Gabriel Morice in 1885, where all of the Syllabics characters have the same height, and the small, final characters sit centered to the word.

When Kevin King contacted us and asked our input and concerns about fixing these issues with the Dakelh Syllabics in Unicode, we were very excited. If we were able to have accurate Dakelh syllabics fonts on all computer systems, it would help immensely in our work to teach Dakelh to our youth and our people. It would further allows us to prepare a better keyboard layout to use with these fonts, and improve our language revitalization and preservation efforts in the Dakelh Nation.

Kevin has kept us updated and we are very much in support of the Syllabic proposal. Our communities, our Dakelh Language, our Dakelh culture will greatly be enhanced by the development of our Dakelh syllabic writing system.

Musi,

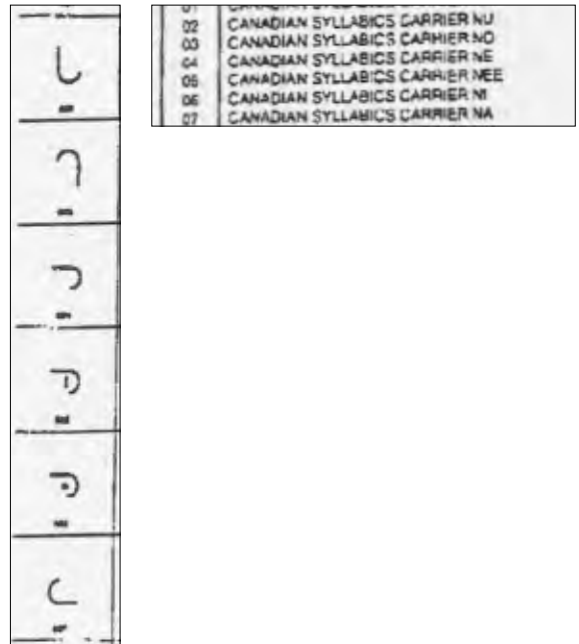
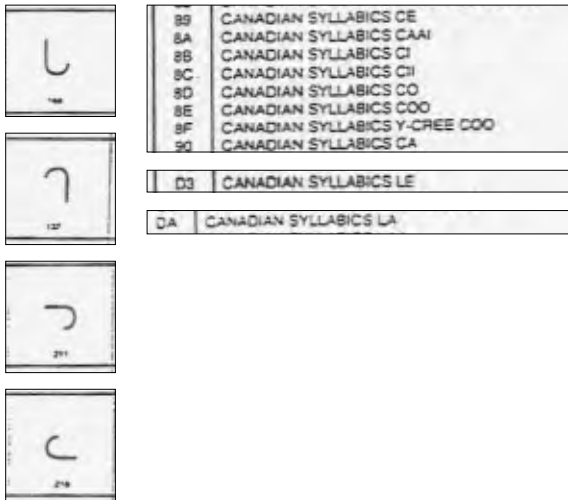
Dennis Cumberland
 Dakelh Cultural Worker
dennis.cumberland@gmail.com
 778 978 0677





figure 2 A letter of support dated 7 April 2021 from Dennis Cumberland, expressing support and the need for the current proposal effort to revise the representative characters for the Carrier syllabics in the UCAS code charts.

The above letter shows attestation for the correct form of U+1638 ᑕ *Carrier t̄hi*.

From Dennis Cumberland, ‘Regarding correcting the representative Carrier syllabics shapes in the Unified Canadian Aboriginal Syllabics in Unicode’.
 7 April 2021.

2.3 Disunified Carrier glyphs in UCAS



 1490	1490 ᓇ CANADIAN SYLLABICS CA • Inuktitut (GA), Athapascan (DHA), Sayisi (THA), Blackfoot (MO)
 1489	1489 ᓈ CANADIAN SYLLABICS CE • Inuktitut (GAI), Athapascan (DHE), Sayisi (THE), Blackfoot (MA)
 14D3	14D3 ᓂ CANADIAN SYLLABICS LE • Inuktitut (LAI)
 14DA	14DA ᓄ CANADIAN SYLLABICS LA







 1602	1602 ᓇ CANADIAN SYLLABICS CARRIER NU
 1603	1603 ᓈ CANADIAN SYLLABICS CARRIER NO
 1604	1604 ᓂ CANADIAN SYLLABICS CARRIER NE
 1605	1605 ᓄ CANADIAN SYLLABICS CARRIER NEE
 1606	1606 ᓆ CANADIAN SYLLABICS CARRIER NI
 1607	1607 ᓈ CANADIAN SYLLABICS CARRIER NA

figure 3 Two showings above of ranges U+1490–U+14DA and U+1602–U+1607 from the UCAS main block—from L2/98–128, and the current UCAS main code charts for Unicode version 13.0, respectively—showing Carrier characters that were disunified from graphically-similar characters due to the distinct difference in proportions of the Carrier syllabics from the other syllabics orthographies supported in UCAS.

The script encoding committee that prepared the original UCAS main character repertoire (The Canadian Aboriginal Syllabics Encoding Committee) proposed disunified characters to meet the graphical requirements of the Carrier syllabics, where otherwise they would overlap with visually-similar characters used by other orthographies within UCAS.

In later versions of the Unicode Standard, the chart font for UCAS misrepresented a large number of these distinct Carrier characters. This resulted in the current errors specified for revision in this document to the correct forms the Carrier community desires for their syllabic characters.

From L2/98–128, ISO/IEC 10646–1:1993, FDAM 11, 1998 and ‘Unified Canadian Aboriginal Syllabics.’ Range: 1400–167F, Version 13.0, The Unicode Consortium, copyright © 1999–2020

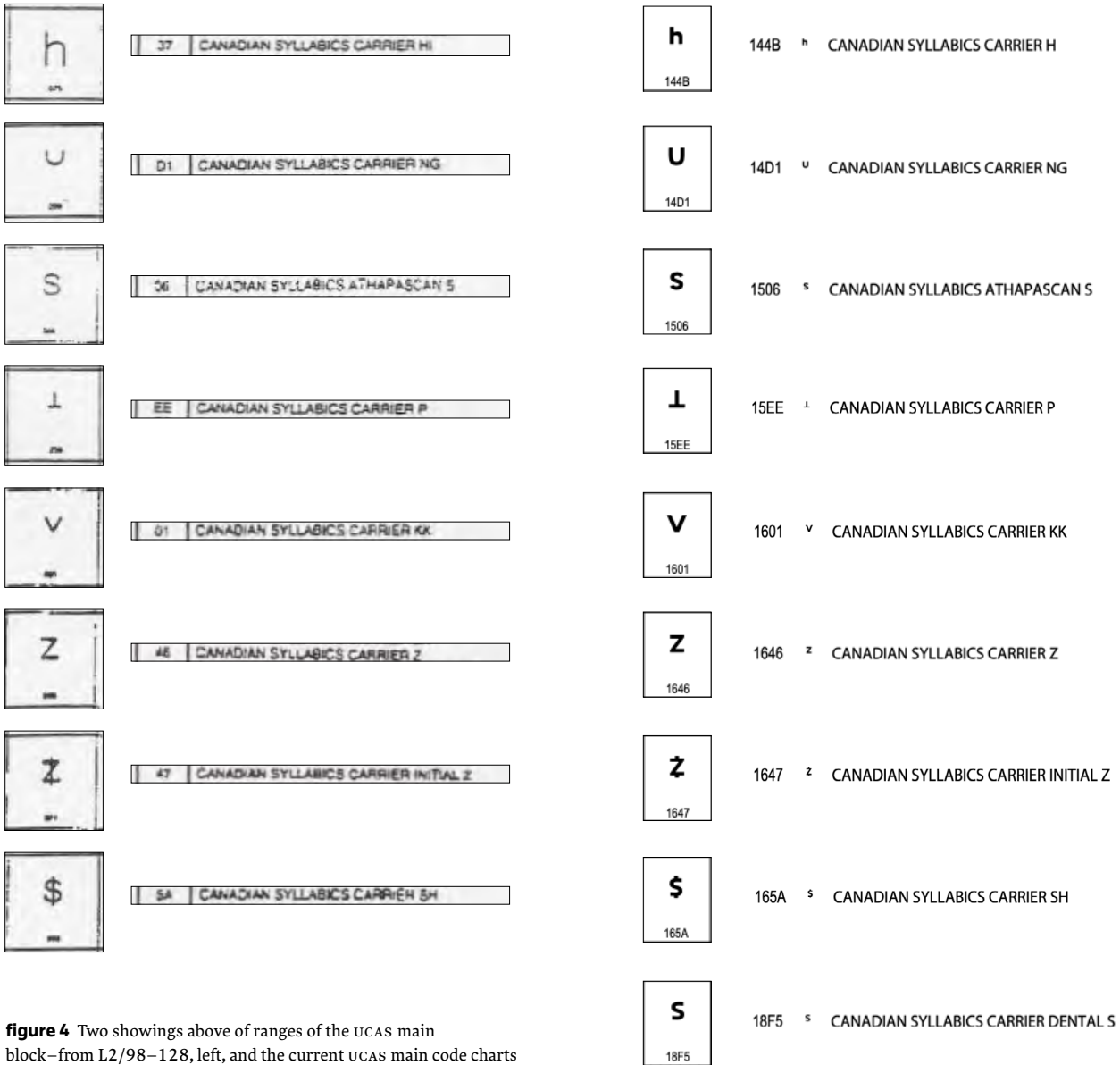


figure 4 Two showings above of ranges of the UCAS main block—from L2/98–128, left, and the current UCAS main code charts for Unicode version 13.0, right, respectively—showing Carrier finals characters that were either disunified from graphically-similar finals characters, or, encoded as distinct Carrier finals as they were only required for the Carrier syllabics orthography.

In the Carrier syllabics, finals are expected to appear vertically positioned at the centre point between the full height of the syllabic characters and the baseline. This is opposed to the standard vertical positioning within UCAS for finals characters, where finals are always positioned at the top position. The diagram, right, titled ‘Vertical positioning of Carrier finals’ demonstrates the Carrier finals vertical positioning, and the way the distinct Carrier finals are positioned in the current chart font for UCAS.

As in the case of disunification for Carrier syllabics characters described in figure 2, the original script encoding committee provided one disunified character for Carrier in U+14D1 u *Carrier ng*, as well as provided the necessary distinct Carrier finals characters as shown in the above listings. As U+14D1 u *Carrier ng* is disunified from U+1421 u *CANADIAN SYLLABICS FINAL BOTTOM HALF RING*, and the distinct Carrier finals characters are only used for this orthography, these characters can be vertically positioned at the centre position to accommodate this Carrier syllabics orthography preference.

From L2/98–128, 1998 and ‘Unified Canadian Aboriginal Syllabics.’ Range: 1400–167F, Version 13.0, The Unicode Consortium, copyright © 1999–2020

Vertical positioning of Carrier finals

1 CORRECT FINALS POSITION



2 INCORRECT FINALS POSITION



2.4 Correct orientation of Carrier *dlu* and *tlo* glyphs

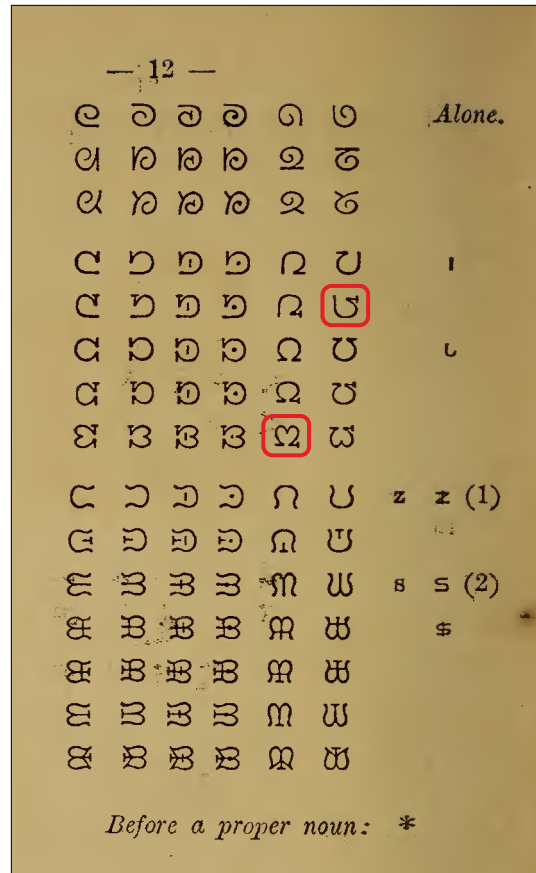
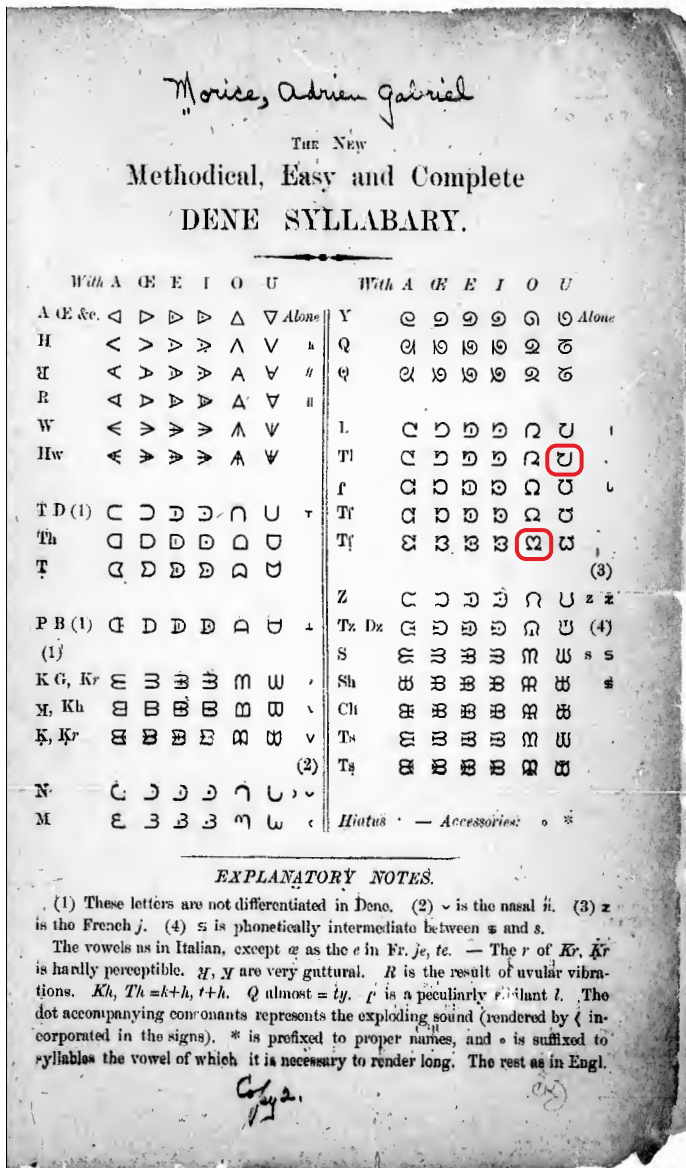


figure 5 In conjunction with the issue of correct representative glyphs for Carrier in the UCAS code charts is the correct orientation of two code points' representative characters: U+1628 \cup Carrier *dlu* and U+163B Ω Carrier *tlo*. In the current representative glyphs for these code points in the UCAS main block charts, the orientation of these characters is incorrect, with both characters being reflected in opposition to their orientation they should take. The revised representative glyphs provided in this proposal on pages 15 and 16 show the correct orientation as is performed by the Carrier community. The above texts show two differing orientation schemes that were presented by Morice. The document above, left, shows the chart from Morice's 1890 publication *The new methodical, easy and complete Dene syllabary*, which shows orientations that differ for many of the current representative characters in UCAS, including U+1628 \cup Carrier *dlu*, although showing the correct orientation for U+163B Ω Carrier *tlo*. The text above, right, shows a detail from Morice's Carrier Syllabics chart in his *Carrier reading-book*, published in 1894. The chart in this text shows a revised orientation scheme, which is the current orientation scheme that the entire Carrier Nation community follows for their Syllabics to the present day, showing attestation for the correct orientation of U+1628 \cup Carrier *dlu* and U+163B Ω Carrier *tlo*.

From Adrien-Gabriel Morice's *The new methodical, easy and complete Dene syllabary*, 1890, and *Carrier reading-book*, 1894

2.5 Notes on the design of Carrier glyphs: Carrier z and Athapascan s

figure 6 The example, right, depicts the contemporary Carrier Nation’s preferred shaping of Carrier characters U+1646 *z* Carrier z and U+1506 *s* Athapascan s, which is in the monolinear, sans serif style. This is in contrast to the design of these two glyphs in historical sources, which show these characters rendered in a Latin, serified style form.

Preferred contemporary shaping of Carrier z and Athapascan s

Z U+1646 CANADIAN SYLLABICS CARRIER Z

S U+1506 CANADIAN SYLLABICS ATHAPASCAN S

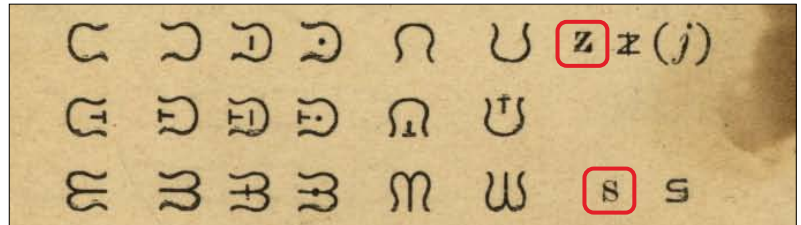
figure 7 The text examples (1), from Morice’s *D’ ɔsɔs ɔsɔs ɔsɔs* / *Carrier reading-book*, 1894, (2) from Morice’s later Carrier Syllabics publication *ɔsɔs ɔsɔs ɔsɔs* / *Carrier prayer book*, 1901, and (3) from Morice’s Carrier newspaper *ɔsɔs ɔsɔs* / *Mission Papers*, 1891, right, show the historical serified variants of these characters, which were employed in all texts that Adrien-Gabriel Morice printed.

Historical form of Carrier z and Athapascan s

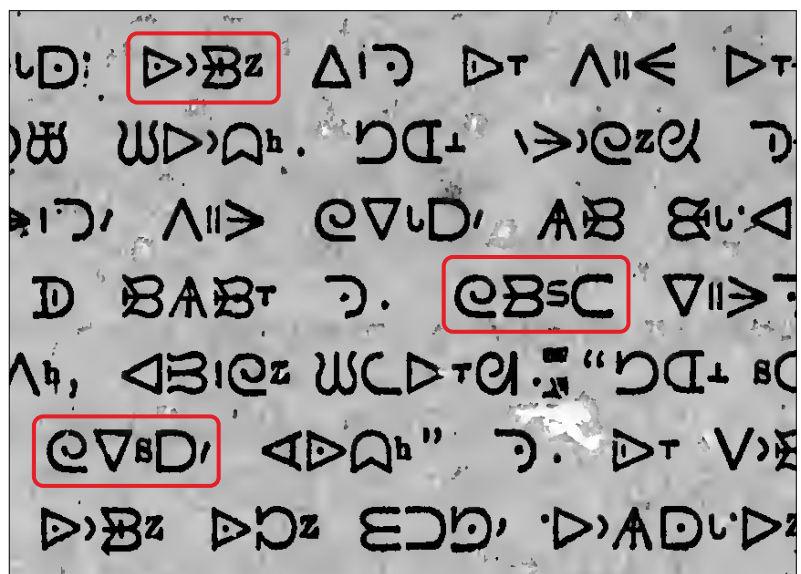
1



2



3



Carrier Syllabics expert and historian Dennis Cumberland noted in a phone conversation on 10 March 2021 with the author that Morice used multiple printing presses as he upgraded his equipment during his time at Stuart Lake Mission, which included his type supply. This resulted in Morice borrowing sorts for lowercase letters *s* and *z* from the Latin script typeface he used for printing English and French text, in order to distinguish U+1646 *z* Carrier z from U+1647 *z* Carrier initial z and U+1506 *s* Athapascan s from U+18F5 *s* Carrier dental s.

Note in example (3) the presence of both U+18F5 *s* Carrier dental s and U+1506 *s* Athapascan s in the same paragraph of text. In order for these characters to be distinguished, Morice made use of his roman type stock to render U+1506 *s* Athapascan s in a lowercase serified s. This distinguished this character from the monolinear form of U+18F5 *s* Carrier dental s, both by shape and proportion.

In an email conversation on 21 April, 2021, Cumberland shared further that ‘... Morice used a couple of different printing presses as he upgraded [his equipment] ... it is possible he made adjustments [to the orthography as he worked] ... and he might of also made errors in some type sets [that he chose to work with] ...’

In email correspondence with the author, both Cumberland and Prince confirmed that the Carrier community preferred the monolinear forms of these characters for the contemporary Syllabics orthography. They stated that the user community prefers the cohesiveness that the monolinear form offers to the whole system, and feel that there is no trouble distinguishing U+1646 *z* Carrier z from U+1647 *z* Carrier initial z and U+1506 *s* Athapascan s from U+18F5 *s* Carrier dental s.

From Dennis Cumberland, ‘Discussing the history of the Dakelh (Carrier) Syllabics.’ 10 March 2021, Telephone interview with the author, Dennis Cumberland and Francois Prince, ‘Question about Syllabics rotation in Morice document & single ‘s’ and ‘z’ sound character shapes’, 21 April 2021, 4:13 am EST and 23 April 2021, 11:43 am EST, Adrien-Gabriel Morice’s *D’ ɔsɔs ɔsɔs ɔsɔs* / *Carrier reading-book*, 1894, and *ɔsɔs ɔsɔs ɔsɔs* / *Carrier prayer book*, 1901, and *ɔsɔs ɔsɔs* / *Mission Papers*, First edition (D’ 1 ɔsɔs), Volume 10 (D’ 10 ɔsɔs), 1891

2.6 Attestations for Carrier

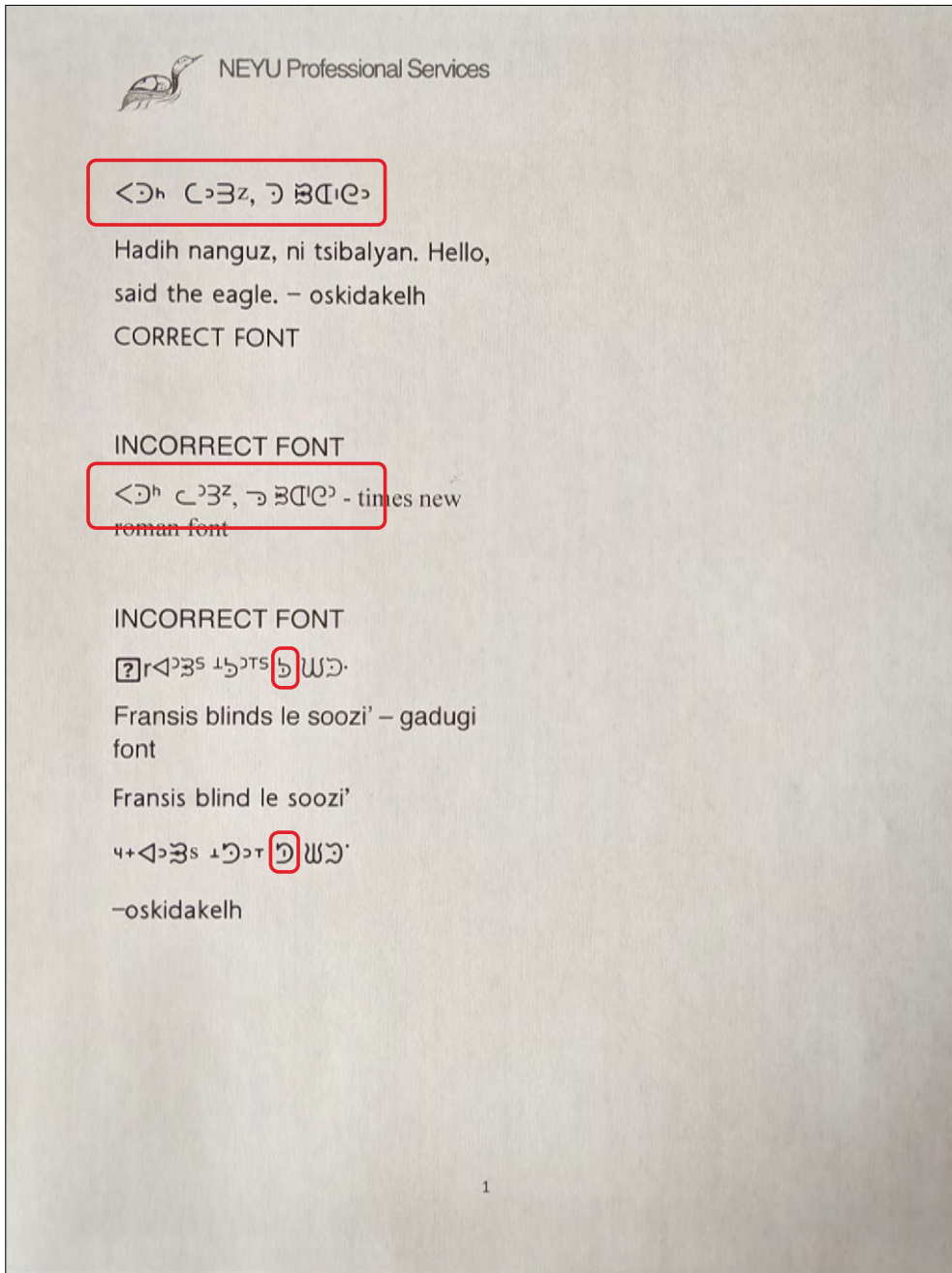


figure 8 A document prepared by Francois Prince to express the differences between the correct appearance of the Carrier syllabics characters, and the incorrect representation of the characters.

Note that Prince’s showing—in the “correct font” example at the top of the document—clearly depicts the preferred form of the Carrier syllabic characters as uniform in height, without variation in height between full-size and medium-size characters (ex. ᑕ vs ᑕ for U+1625 ᑕ *Carrier lee*). Additionally, Prince’s showing depicts the preferred positioning of the finals characters at the mid line position, centered between the full height of the syllabics characters and the baseline (ex. <ᑕᑕᑕ ᑕᑕᑕᑕ, ᑕᑕ ᑕᑕᑕᑕᑕ vs. <ᑕᑕᑕ ᑕᑕᑕᑕ, ᑕᑕ ᑕᑕᑕᑕᑕ).

Additionally, the above showings depict the correct

graphical distinction between U+14DA ᑕ *ca* and U+1607 ᑕ *Carrier na*, demonstrating the purpose these characters—as well as the entire Carrier n-series range (U+1602–U+1607)—were disunified from range U+1490–U+14DA in the original UCAS main block character repertoire.

The above document shows attestation for U+144B ᑕ *Carrier h*, U+1607 ᑕ *Carrier na*, U+15F1 ᑕ *Carrier ge*, U+1606 ᑕ *Carrier ni*, U+1665 ᑕ *Carrier chi*, U+15ED ᑕ *Carrier pa*, U+1613 ᑕ *Carrier ya*, and U+162B ᑕ *Carrier dlee*.

From Francois Prince, ‘Correct form of the Dakelh syllabics’, 2021

figure 9 Right, pages 11 and 12 from Father Adrien-Gabriel Morice's ᑕᓂᑕᓂ ᑎᖃᑦᑦ ᑕᑕᑕᑕ / *Carrier prayer book* of 1901, showing the technical mapping of the Carrier syllabary that he originally devised in collaboration with Jimmy Alexander in 1885. This syllabary chart provides attestation for the correct representative forms preferred by the contemporary Carrier Nation, showing:

- U+144B ᖃ Carrier h,
- U+14D1 ᖃ Carrier ng,
- U+1506 ᓂ Athapascan s,
- U+15C4 ᖃ Carrier ghu,
- U+15C5 ᐱ Carrier gho,
- U+15C6 ᐅ Carrier ghe,
- U+15C7 ᐅ Carrier ghee,
- U+15C8 ᐅ Carrier ghi,
- U+15C9 ᐸ Carrier gha,
- U+15CA ᖃ Carrier ru,
- U+15CB ᐱ Carrier ro,
- U+15CC ᐅ Carrier re,
- U+15CD ᐅ Carrier ree,
- U+15CE ᐅ Carrier ri,
- U+15CF ᐸ Carrier ra,
- U+15D0 ᖃ Carrier wu,
- U+15D1 ᐱ Carrier wo,
- U+15D2 ᐅ Carrier we,
- U+15D3 ᐅ Carrier wee,
- U+15D4 ᐅ Carrier wi,
- U+15D5 ᐸ Carrier wa,
- U+15DC ᑕ Carrier thu,
- U+15DD ᑕ Carrier tho,
- U+15DE ᑕ Carrier the,
- U+15DF ᑕ Carrier thee,
- U+15E0 ᑕ Carrier thi,
- U+15E1 ᑕ Carrier tha,
- U+15E2 ᑕ Carrier ttu,
- U+15E3 ᐱ Carrier tto,
- U+15E4 ᑕ Carrier tte,
- U+15E5 ᑕ Carrier ttee,
- U+15E6 ᑕ Carrier tti,
- U+15E7 ᑕ Carrier tta,
- U+15E8 ᖃ Carrier pu,
- U+15E9 ᐱ Carrier po,
- U+15EA ᑕ Carrier pe,
- U+15EB ᑕ Carrier pee,
- U+15EC ᑕ Carrier pi,
- U+15ED ᑕ Carrier pa,
- U+15EE ᐅ Carrier p,
- U+15EF ᖃ Carrier gu,
- U+15F0 ᖃ Carrier go,
- U+15F1 ᖃ Carrier ge,
- U+15F2 ᖃ Carrier gee,
- U+15F3 ᖃ Carrier gi,
- U+15F4 ᐱ Carrier ga,
- U+15F5 ᖃ Carrier khu,
- U+15F6 ᖃ Carrier kho,
- U+15F7 ᖃ Carrier khe,
- U+15F8 ᖃ Carrier khee,
- U+15F9 ᖃ Carrier khi,
- U+15FA ᖃ Carrier kha,
- U+15FD ᖃ Carrier kke,
- U+15FB ᖃ Carrier kku,
- U+15FC ᖃ Carrier kko,
- U+15FE ᖃ Carrier kkee,
- U+15FF ᖃ Carrier kki,
- U+1600 ᖃ Carrier kka,
- U+1601 ᖃ Carrier kk,
- U+1602 ᖃ Carrier nu,
- U+1603 ᖃ Carrier no,
- U+1604 ᖃ Carrier ne,
- U+1605 ᖃ Carrier nee,
- U+1606 ᖃ Carrier ni,
- U+1607 ᖃ Carrier na,
- U+1608 ᖃ Carrier mu,
- U+1609 ᖃ Carrier mo,
- U+160A ᖃ Carrier me,
- U+160B ᖃ Carrier mee,
- U+160C ᖃ Carrier mi,
- U+160D ᐱ Carrier ma,
- U+160E ᖃ Carrier yu,
- U+160F ᖃ Carrier yo,
- U+1610 ᖃ Carrier ye,
- U+1611 ᖃ Carrier yee,
- U+1612 ᖃ Carrier yi,
- U+1613 ᖃ Carrier ya,
- U+1614 ᖃ Carrier ju,
- U+1616 ᖃ Carrier jo,
- U+1617 ᖃ Carrier je,
- U+1618 ᖃ Carrier jee,
- U+1619 ᖃ Carrier
- ji, U+161B ᑕ Carrier ja,
- U+161C ᑕ Carrier jju,
- U+161D ᑕ Carrier jjo,
- U+161E ᑕ Carrier jje,
- U+161F ᑕ Carrier jjee,
- U+1620 ᑕ Carrier jji,
- U+1621 ᑕ Carrier jja,
- U+1622 ᑕ Carrier lu,
- U+1623 ᑕ Carrier lo,
- U+1624 ᑕ Carrier le,
- U+1625 ᑕ Carrier lee,
- U+1626 ᑕ Carrier li,
- U+1627 ᑕ Carrier li,
- U+1628 ᑕ Carrier dlu,
- U+1629 ᑕ Carrier dlo,
- U+162A ᑕ Carrier dle,
- U+162B ᑕ Carrier dlee,
- U+162C ᑕ Carrier dli,
- U+162D ᑕ Carrier dli,
- U+1630 ᑕ Carrier lthe,
- U+1631 ᑕ Carrier lthee,
- U+1632 ᑕ Carrier lhi,
- U+1633 ᑕ Carrier lha,
- U+1634 ᑕ Carrier tlhu,
- U+1635 ᑕ Carrier tlho,
- U+1636 ᑕ Carrier tlhe,
- U+1637 ᑕ Carrier tlhee,
- U+1638 ᑕ Carrier thli,
- U+1639 ᑕ Carrier thla,
- U+163A ᑕ Carrier thlu,
- U+163B ᑕ Carrier tlo,
- U+163C ᑕ Carrier tle,
- U+163D ᑕ Carrier tlee,
- U+163E ᑕ Carrier tli,
- U+163F ᑕ Carrier tla,
- U+1640 ᑕ Carrier zu,
- U+1641 ᑕ Carrier zo,
- U+1642 ᑕ Carrier ze,
- U+1643 ᑕ Carrier zee,
- U+1644 ᑕ Carrier zi,
- U+1645 ᑕ Carrier za,
- U+1646 ᑕ Carrier z,
- U+1647 ᑕ Carrier initial z,
- U+1648 ᖃ Carrier dzu,
- U+1649 ᖃ Carrier dzo,
- U+164A ᖃ Carrier dze,
- U+164B ᖃ Carrier dzee,
- U+164C ᖃ Carrier dzi,
- U+164D ᖃ Carrier dza,
- U+164E ᖃ Carrier su,
- U+164F ᖃ Carrier so,
- U+1650 ᖃ Carrier se,
- U+1651 ᖃ Carrier see,
- U+1652 ᖃ Carrier si,
- U+1653 ᖃ Carrier sa,
- U+1654 ᖃ Carrier shu,
- U+1655 ᖃ Carrier sho,
- U+1656 ᖃ Carrier she,
- U+1657 ᖃ Carrier shee,
- U+1658 ᖃ Carrier shi,
- U+1659 ᖃ Carrier sha,
- U+165A ᖃ Carrier sh,
- U+165B ᖃ Carrier tsu,
- U+165C ᖃ Carrier tso,
- U+165D ᖃ Carrier tse,
- U+165E ᖃ Carrier tsee,
- U+165F ᖃ Carrier tsi,
- U+1660 ᖃ Carrier tsa,
- U+1661 ᖃ Carrier chu,
- U+1662 ᖃ Carrier cho,
- U+1663 ᖃ Carrier che,
- U+1664 ᖃ Carrier chee,
- U+1665 ᖃ Carrier chi,
- U+1666 ᖃ Carrier cha,
- U+1667 ᖃ Carrier ttsu,
- U+1668 ᖃ Carrier ttso,
- U+1669 ᖃ Carrier ttse,
- U+166A ᖃ Carrier ttsee,
- U+166B ᖃ Carrier ttsi,
- U+166C ᖃ Carrier ttsa,
- U+18F5 ᖃ Carrier dental s

ᑕ ᑕᑕ ᑕᑕᑕ ᑕᑕᑕᑕ

DÉNÉ SYLLABARY.

SYLLBAIRE DÉNÉ.

	A	E	I	O	U	Without vowel.
Ha hə he hi, etc.	ᐱ	ᐳ	ᐵ	ᐷ	ᐹ	ᐻ Sans voyelle
Rha	ᐱ	ᐳ	ᐵ	ᐷ	ᐹ	ᐻ
Ra	ᐱ	ᐳ	ᐵ	ᐷ	ᐹ	ᐻ
Wa	ᐱ	ᐳ	ᐵ	ᐷ	ᐹ	ᐻ
Hwa	ᐱ	ᐳ	ᐵ	ᐷ	ᐹ	ᐻ
Ta, Da	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Tha	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
'Ta	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Pa, Ba	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Ka, Ga	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Kha	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
'Ka	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ

- 16 -


Na	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ (nasal)
Ma	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Ya	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Qa	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
'Qa	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
La	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Tla	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Ta	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Tja	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
T'ja	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Za	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ (z x (j))
Tza, Dza	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Sa	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ s s
Sha (Fr. Cha)	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ #
Cha (Fr. Tcha)	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
Tsa	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ
T'sa	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ

Before a proper noun } * Hiatus
Avant un nom propre }

figure 10 Right, a contemporary Carrier (Dakelh) Syllabary chart, as composed by Francois Prince in his Syllabics book *Dakelh Syllabics writing system*, Neyu Professional Services, 2018. This chart shows consistency with the character forms in Morice's charts, which provide evidence of the Carrier Nation's current preferences for the appearance of their characters. Showing attestation for:

U+144B ^h Carrier h,	ji, U+161B ^l Carrier
U+14D1 ^u Carrier ng,	ja, U+161C ^o Carrier
U+1506 ^s Athapascan s,	jju, U+161D ^q Carrier
U+15C4 ^v Carrier ghu,	jjo, U+161E ^ɣ Carrier
U+15C5 ^ʌ Carrier gho,	jje, U+161F ^ɣ Carrier
U+15C6 ^{>} Carrier ghe,	jjee, U+1620 ^ɣ Carrier
U+15C7 ^{>} Carrier ghee,	jji, U+1621 ^l Carrier
U+15C8 ^{>} Carrier ghi,	jja, U+1622 ^l Carrier
U+15C9 ^{<} Carrier gha,	lu, U+1623 ^ɔ Carrier
U+15CA ^v Carrier ru,	lo, U+1624 ^ɔ Carrier
U+15CB ^ʌ Carrier ro,	le, U+1625 ^ɔ Carrier
U+15CC ^{>} Carrier re,	lee, U+1626 ^ɔ Carrier
U+15CD ^{>} Carrier ree,	li U+1627 ^ɔ Carrier la,
U+15CE ^{>} Carrier ri,	U+1628 ^ɔ Carrier dlu,
U+15CF ^{<} Carrier ra,	U+1629 ^ɔ Carrier dlo,
U+15D0 ^v Carrier wu,	U+162A ^ɔ Carrier dle,
U+15D1 ^ʌ Carrier wo,	U+162B ^ɔ Carrier dlee,
U+15D2 ^{>} Carrier we,	U+162C ^ɔ Carrier dli,
U+15D3 ^{>} Carrier wee,	U+162D ^ɔ Carrier dla,
U+15D4 ^{>} Carrier wi,	U+1630 ^ɔ Carrier lhe,
U+15D5 ^{<} Carrier wa,	U+1631 ^ɔ Carrier lhee,
U+15DC ^ɔ Carrier thu,	U+1632 ^ɔ Carrier lhi,
U+15DD ^ɔ Carrier tho,	U+1633 ^ɔ Carrier lha,
U+15DE ^ɔ Carrier the,	U+1634 ^ɔ Carrier tlhu,
U+15DF ^ɔ Carrier thee,	U+1635 ^ɔ Carrier tlho,
U+15E0 ^ɔ Carrier thi,	U+1636 ^ɔ Carrier tlhe,
U+15E1 ^ɔ Carrier tha,	U+1637 ^ɔ Carrier tlhee,
U+15E2 ^ɔ Carrier ttu,	U+1638 ^ɔ Carrier thli,
U+15E3 ^ɔ Carrier tto,	U+1639 ^ɔ Carrier thla,
U+15E4 ^ɔ Carrier tte,	U+163A ^ɔ Carrier tlu,
U+15E5 ^ɔ Carrier ttee,	U+163B ^ɔ Carrier tlo,
U+15E6 ^ɔ Carrier tti,	U+163C ^ɔ Carrier tle,
U+15E7 ^ɔ Carrier tta,	U+163D ^ɔ Carrier tlee,
U+15E8 ^ɔ Carrier pu,	U+163E ^ɔ Carrier tli,
U+15E9 ^ʌ Carrier po,	U+163F ^ɔ Carrier tla,
U+15EA ^ɔ Carrier pe,	U+1640 ^ɔ Carrier zu,
U+15EB ^ɔ Carrier pee,	U+1641 ^ɔ Carrier zo,
U+15EC ^ɔ Carrier pi,	U+1642 ^ɔ Carrier ze,
U+15ED ^ɔ Carrier pa,	U+1643 ^ɔ Carrier zee,
U+15EE ^ʌ Carrier p,	U+1644 ^ɔ Carrier zi,
U+15EF ^ɔ Carrier gu,	U+1645 ^ɔ Carrier za,
U+15F0 ^ɔ Carrier go,	U+1646 ^z Carrier z,
U+15F1 ^ɔ Carrier ge,	U+1647 ^z Carrier initial z,
U+15F2 ^ɔ Carrier gee,	U+1648 ^ɔ Carrier dzu,
U+15F3 ^ɔ Carrier gi,	U+1649 ^ɔ Carrier dzo,
U+15F4 ^ɔ Carrier ga,	U+164A ^ɔ Carrier dze,
U+15F5 ^ɔ Carrier khu,	U+164B ^ɔ Carrier dzee,
U+15F6 ^ɔ Carrier kho,	U+164C ^ɔ Carrier dzi,
U+15F7 ^ɔ Carrier khe,	U+164D ^ɔ Carrier dza,
U+15F8 ^ɔ Carrier khee,	U+164E ^ɔ Carrier su,
U+15F9 ^ɔ Carrier khi,	U+164F ^ɔ Carrier so,
U+15FA ^ɔ Carrier kha,	U+1650 ^ɔ Carrier se,
U+15FD ^ɔ Carrier kke,	U+1651 ^ɔ Carrier see,
U+15FB ^ɔ Carrier kku,	U+1652 ^ɔ Carrier si,
U+15FC ^ɔ Carrier kko,	U+1653 ^ɔ Carrier sa,
U+15FE ^ɔ Carrier kkee,	U+1654 ^ɔ Carrier shu,
U+15FF ^ɔ Carrier kki,	U+1655 ^ɔ Carrier sho,
U+1600 ^ɔ Carrier kka,	U+1656 ^ɔ Carrier she,
U+1601 ^v Carrier kk,	U+1657 ^ɔ Carrier shee,
U+1602 ^l Carrier nu,	U+1658 ^ɔ Carrier shi,
U+1603 ^ɔ Carrier no,	U+1659 ^ɔ Carrier sha,
U+1604 ^ɔ Carrier ne,	U+165A [*] Carrier sh,
U+1605 ^ɔ Carrier nee,	U+165B ^ɔ Carrier tsu,
U+1606 ^ɔ Carrier ni,	U+165C ^ɔ Carrier tso,
U+1607 ^ɔ Carrier na,	U+165D ^ɔ Carrier tse,
U+1608 ^ɔ Carrier mu,	U+165E ^ɔ Carrier tsee,
U+1609 ^ɔ Carrier mo,	U+165F ^ɔ Carrier tsi,
U+160A ^ɔ Carrier me,	U+1660 ^ɔ Carrier tsa,
U+160B ^ɔ Carrier mee,	U+1661 ^ɔ Carrier chu,
U+160C ^ɔ Carrier mi,	U+1662 ^ɔ Carrier cho,
U+160D ^ɔ Carrier ma,	U+1663 ^ɔ Carrier che,
U+160E ^ɔ Carrier yu,	U+1664 ^ɔ Carrier chee,
U+160F ^ɔ Carrier yo,	U+1665 ^ɔ Carrier chi,
U+1610 ^ɔ Carrier ye,	U+1666 ^ɔ Carrier cha,
U+1611 ^ɔ Carrier yee,	U+1667 ^ɔ Carrier ttsu,
U+1612 ^ɔ Carrier yi,	U+1668 ^ɔ Carrier ttso,
U+1613 ^ɔ Carrier ya,	U+1669 ^ɔ Carrier ttsee,
U+1614 ^ɔ Carrier ju,	U+166A ^ɔ Carrier tsee,
U+1616 ^ɔ Carrier jo,	U+166B ^ɔ Carrier tsi,
U+1617 ^ɔ Carrier je,	U+166C ^ɔ Carrier tsa,
U+1618 ^ɔ Carrier jee,	U+18F5 ^s Carrier dental s
U+1619 ^ɔ Carrier	

2018
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ᑕᑭᑕ ᑭᑭᑭ ᑭᑭᑭᑭᑭᑭᑭ
Dakelh Syllabic Writing System

[<] [>] [>] [>] ^ʌ ^v
 a u e i o oo

[<] [>] [>] [>] ^ʌ ^v ^h
 ha hu he hi ho hoo h

[<] [>] [>] [>] ^ʌ ^v ^{ll}
 gha ghu ghe ghi gho ghoo gh

[<] [>] [>] [>] ^ʌ ^v ^{ll}
 kha khu khe khi kho khoo ch

[<] [>] [>] [>] ^ʌ ^v
 wa wu we wi wo woo

[<] [>] [>] [>] ^ʌ ^v
 wha whu whe whi who whoo

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 da du de di do doo d/t

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 ta tu te ti to too

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 t'a t'u t'e t'i t'o t'oo

^ɔ ^ɔ ^ɔ ^ɔ ^ʌ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 ba bu be bi bo boo b/v/p

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 ga gu ge gi go goo g

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 ka ku ke ki ko koo k

^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ ^ɔ
 k'a k'u k'e k'i k'o k'oo k'

^ɔ
 na nu ne ni no noo n ng

^ɔ
 ma mu me mi mo moo m

^ɔ
 ya yu ye yi yo yoo

^ɔ
 ja ju je ji jo joo

^ɔ
 ch'a ch'u ch'e ch'i ch'o ch'oo

^ɔ
 la lu le li lo loo l

^ɔ
 dla dlu dle dli dlo dloo

^ɔ
 lha lhu lhe lhi lho lhoo lh

^ɔ
 tla tlu tle tli tlo tloo

^ɔ
 t'a t'u t'e t'i t'o t'oo

^ɔ
 za zu ze zi zo zoo z

^ɔ
 dza dzu dze dzi dzo dzoo

^ɔ
 sa su se si so soo s

^ɔ
 sha shu she shi sho shoo sh

^ɔ
 cha chu che chi cho choo

^ɔ
 tsa tsu tse tsi tso tsoo

^ɔ
 ts'a ts'u ts'e ts'i ts'o ts'oo

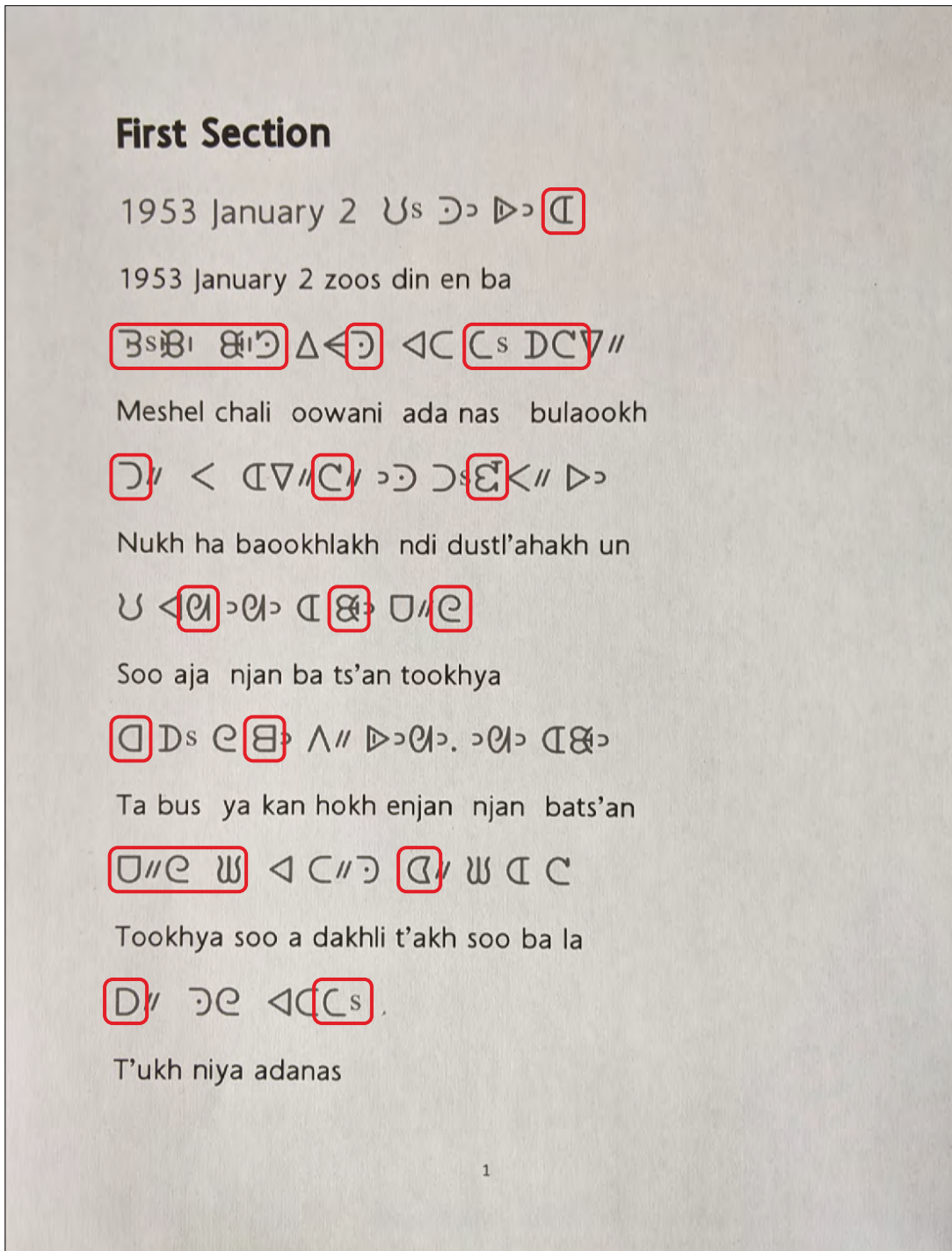


figure 11 A transcription of a Carrier tombstone prepared by Francois Prince, in both the syllabics and roman orthographic systems. Showing attestation for U+1506 ᓂ *Athapascan s*, U+15ED ᐅ *Carrier pa*, U+160B ᖃ *Carrier mee*, U+165D ᖄ *Carrier tse*, U+1660 ᖅ *Carrier tsa*, U+162C ᖇ *Carrier dli*, U+1606 ᖈ *Carrier ni*, U+1607 ᖉ *Carrier na*, U+15EA ᐃ *Carrier pe*, U+1627 ᖋ *Carrier la*, U+1604 ᖌ *Carrier ne*, U+163F ᖍ *Carrier tla*, U+161B ᖎ *Carrier ja*, U+166C ᖏ *Carrier tsa*, U+1613 ᖐ *Carrier ya*, U+15FA ᖑ *Carrier kha*, U+164E ᖒ *Carrier su*, U+15DE ᐅ *Carrier thi*, U+15E1 ᐆ *Carrier tha*, U+15E7 ᐇ *Carrier tta*, and U+15DC ᐈ *Carrier thu*

being < C ∩ ε C @ C ∩ ε. So, the pupil who becomes familiar with these nine symbols may also be said to have mastered the whole alphabet.

Also, the modifications of each character take place internally and in conformity to logical and easily learned rules. To illustrate we will use the ε. The student who is familiar with the nine signs will recognise it by sight – through its double undulating curve – as a hard sibilant which, being affected by no modification, must be given the primary hissing sound *Sa*. Let's now insert the perpendicular line, when used as an internal accretion to a sign, corresponds to the *h* of the roman alphabet (as in < gha, ε wha, ∩ ta(theta), @ ka (kha),) and we obtain ∩ Sha. Should we cross the end of the horizontal line, we will thereby add a τ to that sign which will then become @ cha (tsha). In like manner, ε Sa may be changed to ∩ Tsa which, in its turn is liable to be transformed into ∩ ts'a (t'sa), C ta, ε ga etc. may also become ∩ t'a, @ k'a.

In our system, all of the small signs are consonants without vowels and in no instance is any of them used in any other capacity. They always have the same value, and the method and logic which we have noticed in the formation of the main or syllabic signs have also presided to the composition of those which are merely consonantal. The importance of this reference is to ensure the meaning and translations stay true to its form and references. Thus the non syllabic gutturals are expressed by vertical lines (/ g, \ k, v k'); the nasals by (> n, u ng, c m). Also note the transformation of s to sh. through the insertion | l or modified h of the large characters.

We claim for our syllabary a greater synthesis which renders the writing shorter and, by avoiding the accumulation of non syllabic signs, making the reading easier. This syllabary can be easily studied at a leisurely pace

figure 12 Page 3 from Francois Prince's book ᑕᐃᐅᐅ ᐅᑦᑕ ᑕᑦᐅᑕᑦᑕᐅᑦᑕᑦᑕᑦ / *Duchun k'ut 'uk'une'usguz / Dakelh syllabic writing system*, providing a lesson in the structure of the Carrier syllabics. Showing attestation for U+144B ᑦ Carrier h, U+14D1 ᑎ Carrier ng, U+1506 ᑦ Athapascan s, U+15ED ᑕ Carrier pa, U+15F4 ε Carrier ga, U+1607 C Carrier na, U+166C ∩ Carrier tsa, U+1613 @ Carrier ya, U+15FA @ Carrier kha, U+1627 C Carrier la, U+1653 ε Carrier sa, U+1666 ε Carrier cha, U+1659 @ Carrier sha, U+1660 @ Carrier tsa, U+15E7 ∩ Carrier tta, U+1600 @ Carrier kka, U+165A * Carrier sh, U+15CF < Carrier ra, and U+15DB ε Carrier hwa, From Prince, Neyu Professional Services, 2018

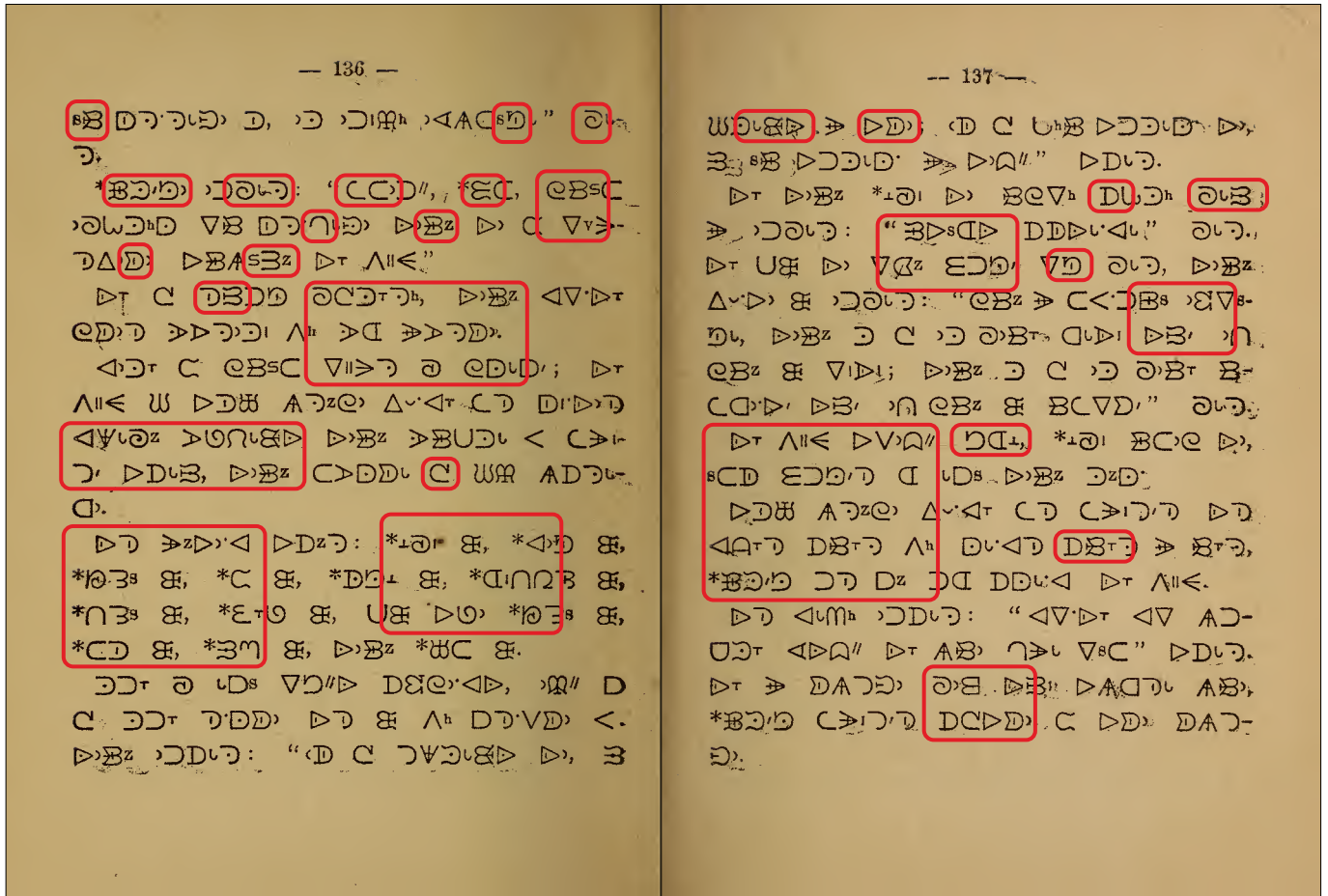


figure 13 From Morice's Carrier reading-book of 1894, showing the Carrier Syllabics characters in textual setting, rendered in the appearance preferred by the contemporary Carrier Nation.

Showing attestation for U+1506 ᓄ *Athapascan* s, U+1669 ᓇ *Carrier tsa*, U+166C ᓈ *Carrier tsa*, U+1603 ᓉ *Carrier no*, U+144B ᓊ *Carrier h*, U+15E5 ᓋ *Carrier ttee*, U+15E7 ᓌ *Carrier tta*, U+1605 ᓍ *Carrier nee*, U+1606 ᓎ *Carrier ni*, U+1607 ᓏ *Carrier na*, U+15EA ᓐ *Carrier pe*, U+15ED ᓑ *Carrier pa*, U+1627 ᓒ *Carrier la*, U+1624 ᓓ *Carrier le*, U+162B ᓔ *Carrier dlee*, U+15F4 ᓕ *Carrier ga*, U+15F1 ᓇ *Carrier ge*, U+1601 ᓖ *Carrier kh*, U+15FD ᓈ *Carrier kke*, U+15F8 ᓉ *Carrier kee*, U+1610 ᓏ *Carrier ye*, U+1613 ᓐ *Carrier ya*, U+1611 ᓑ *Carrier yee*, U+1612 ᓒ *Carrier yi*, U+160E ᓓ *Carrier yu*, U+1660 ᓔ *Carrier tsa*, U+1657 ᓕ *Carrier shee*, U+1626 ᓇ *Carrier li*, U+160A ᓈ *Carrier me*, U+160D ᓉ *Carrier ma*, U+163F ᓊ *Carrier tla*, U+1618 ᓋ *Carrier jee*, U+1652 ᓌ *Carrier si*, U+1623 ᓍ *Carrier lo*, U+1646 ᓎ *Carrier z*, U+15EE ᓏ *Carrier p*, U+1663 ᓐ *Carrier che*, U+1665 ᓑ *Carrier chi*, and U+1651 ᓒ *Carrier see*.

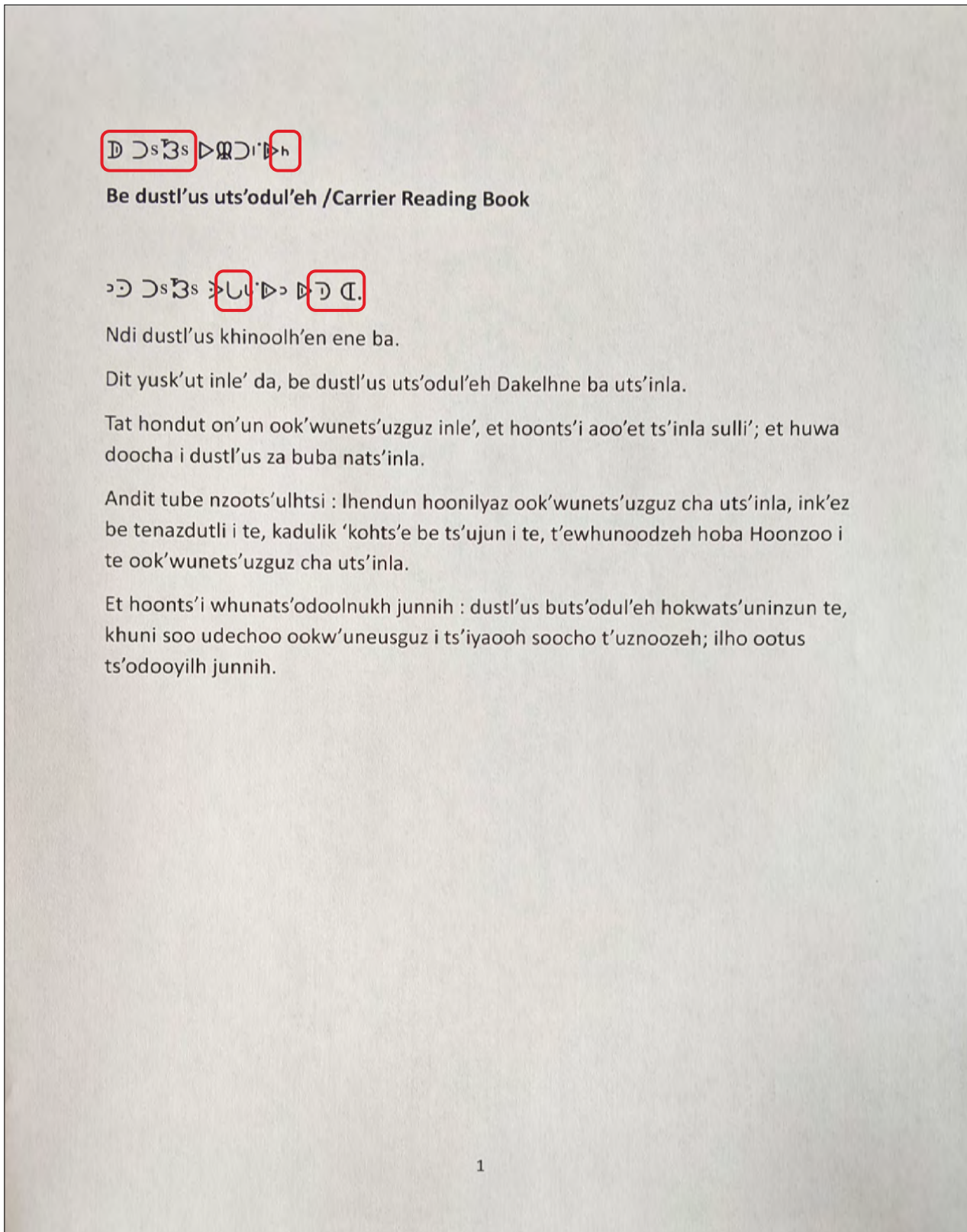
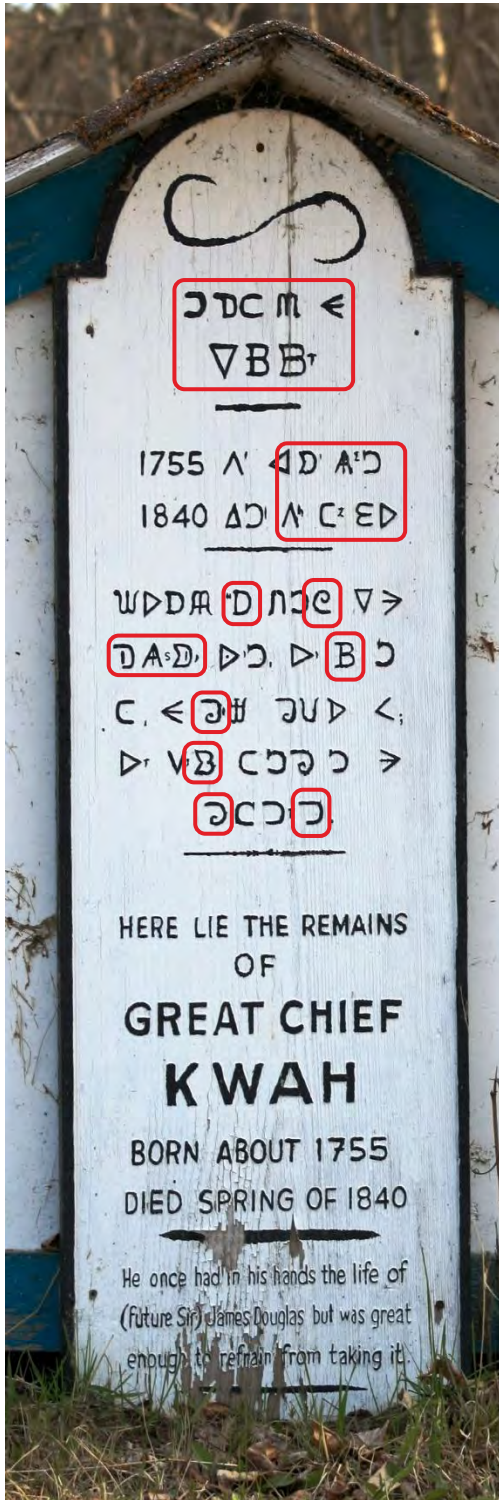


figure 14 Page 1 from Francois Prince's book ᑕᑭᑭᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ ᑲᑦᑲᑦ / *Duchun k'ut 'uk'une'usguz / Dakelh syllabic writing system*, showing attestation for U+1506 ᑭ *Athapascan s*, U+144B ᑲ *Carrier h*, U+1605 ᑛ *Carrier nee*, U+1602 ᑭ *Carrier nu*, U+15ED ᑛ *Carrier pa*, and U+15EB ᑛ *Carrier pee*



ǀǀ ǀ· ǀǀ ←
 ▽BBǀ

1775 ǀ· ǀǀ ǀǀǀ
 1840 ǀǀǀ ǀ· ǀǀǀǀ

ǀǀǀǀ ǀ· ǀǀǀ ▽
 ǀǀǀǀǀ ǀǀǀ, ǀǀ ǀǀ
 ǀ, ← ǀǀǀ ǀǀǀǀ,
 ǀǀ ▽ǀǀ ǀǀ ǀǀ ǀǀ
 ǀǀ ǀǀǀ

HERE LIES THE REMAINS OF
 GREAT CHIEF KWAH
 BORN ABOUT 1755
 DIED IN SPRING OF 1840
 HE ONCE HAD,IN HIS HANDS, THE LIFE
 OF JAMES DOUGLAS, BUT WAS GREAT
 ENOUGH TO REFRAIN FROM TAKING IT

figure 15 Left, a 19th century Carrier tombstone for Chief Kwah, in Carrier syllabics and Latin script for the English text. Right, Francois Prince's transcription of the historical syllabics text into the modern-day Carrier language in syllabics, showing the continuity between the historical Carrier syllabics character forms, and the proportions the contemporary Carrier community prefers for their syllabics. Showing attestation for U+144B ǀ Carrier h, U+1506 ǀ Athapascan s, U+1604 ǀ Carrier ne, U+1610 ǀ Carrier ye, U+1627 ǀ Carrier la, U+1624 ǀ Carrier le, U+1625 ǀ Carrier lee, U+1626 ǀ Carrier li, U+15F7 ǀ Carrier khe, U+1605 ǀ Carrier nee, U+1606 ǀ Carrier ni, U+15FD ǀ Carrier kke, U+1612 ǀ Carrier yi, U+15E5 ǀ Carrier ttee, U+15E6 ǀ Carrier tti, U+1653 ǀ Carrier sa, and U+1646 z Carrier z.

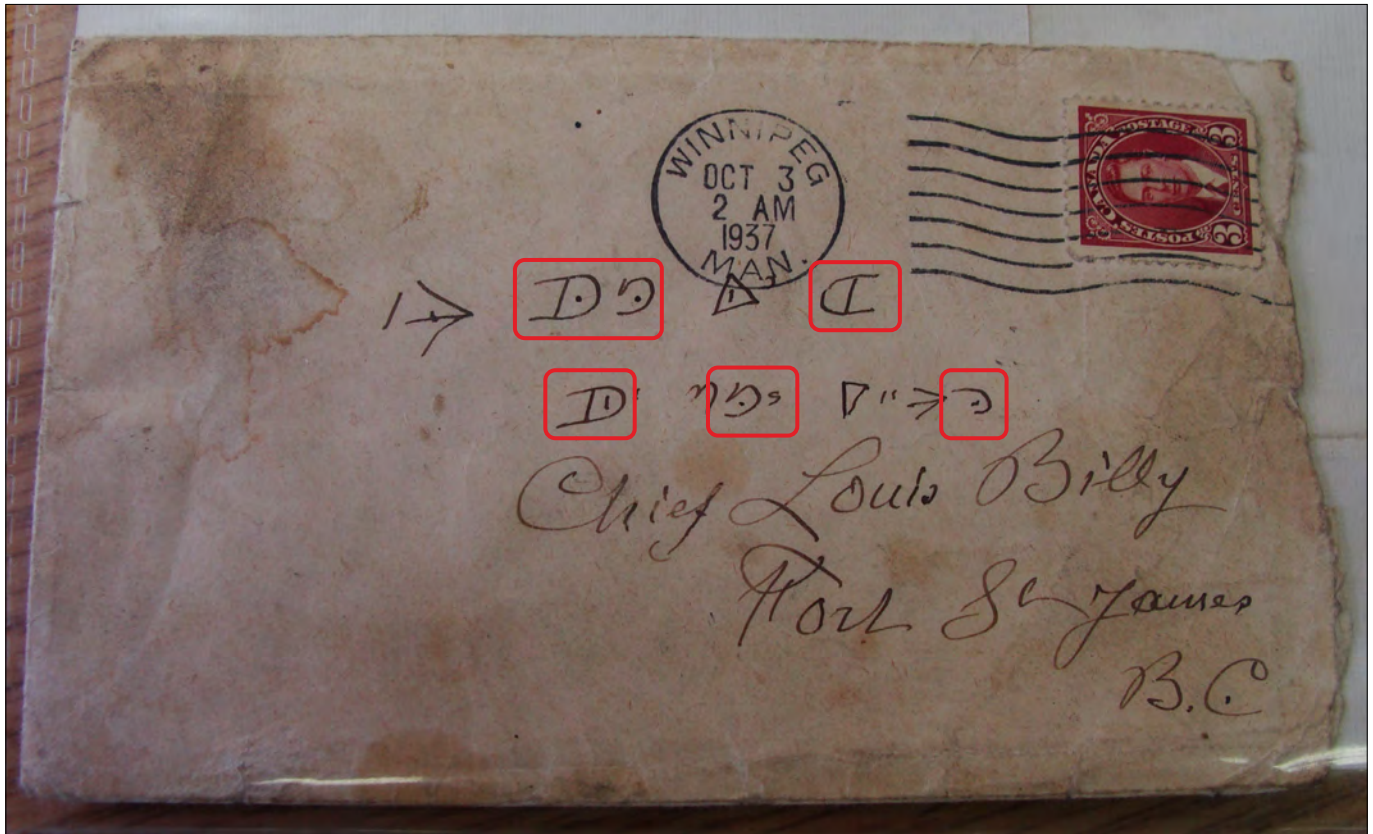


figure 16 An envelope for a letter from Adrien-Gabriel Morice to Chief Louis Billy Prince in Winnipeg, dated 3 October 1937, written in both Carrier syllabics and Latin script for the English text. Showing attestation for U+1506 *s Athapascan s*, U+1626 *D Carrier li*, U+1606 *D Carrier ni*, U+15EC *D Carrier pi*, U+15EB *D Carrier pee*, and U+15ED *D Carrier pa*.

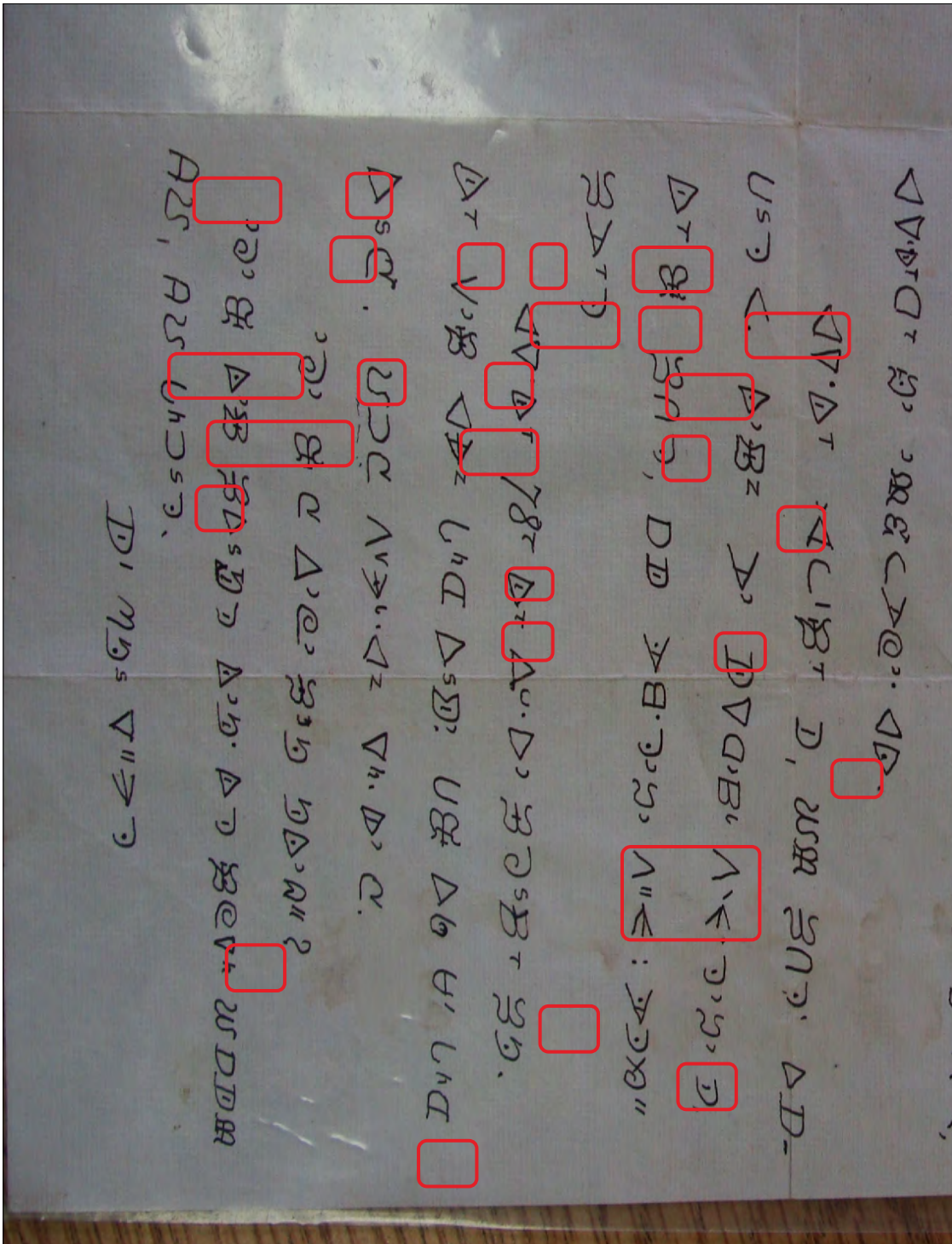


figure 17 A letter from Adrien-Gabriel Morice to Chief Louis Billy Prince in Winnipeg, dated 3 October 1937, written in both Carrier syllabics, showing attestation for U+1506 ᓄ Athapascan s, U+1626 ᓂ Carrier li, U+1606 ᓃ Carrier ni, U+15EC ᓄ Carrier pi, U+15EB ᓅ Carrier pee, U+15ED ᓆ Carrier pa, U+144B ᓇ Carrier h, U+1652 ᓈ Carrier si, U+1663 ᓉ Carrier che, U+166B ᓊ Carrier tti, U+1669 ᓋ Carrier ttse, U+1660 ᓌ Carrier tsa, U+162D ᓍ Carrier dla, U+161E ᓎ Carrier jje, U+1613 ᓏ Carrier ya, U+1610 ᓐ Carrier ye, U+1612 ᓑ Carrier yi, U+15FD ᓒ Carrier kke, U+1650 ᓓ Carrier se, U+1653 ᓔ Carrier sa, U+1601 ᓕ Carrier kk, U+15E7 ᓆ Carrier tta, U+15FE ᓈ Carrier kkee, U+15F1 ᓉ Carrier ge, U+1623 ᓏ Carrier lo, and U+161B ᓐ Carrier ja.

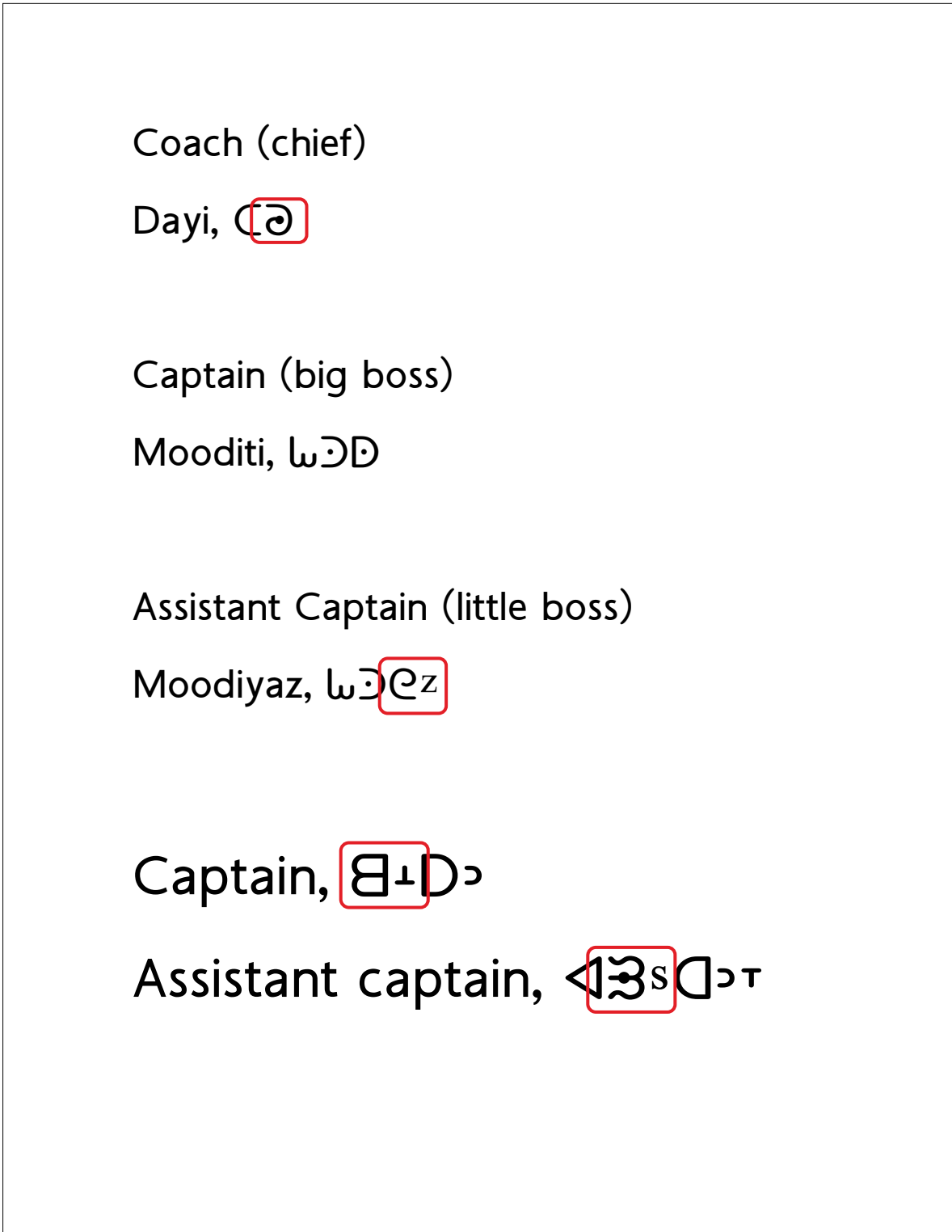


figure 18 A translation document by Francois Prince rendering the titles of a local Carrier sports team in the syllabics, showing attestation for U+1506 ^s *Athapascan s*, U+1613 ^o *Carrier ya*, U+1612 ^o *Carrier yi*, U+1646 ^z *Carrier z*, U+15FA ^h *Carrier kha*, U+1613 ^o *Carrier ya*, and U+15EE ^p *Carrier p*.

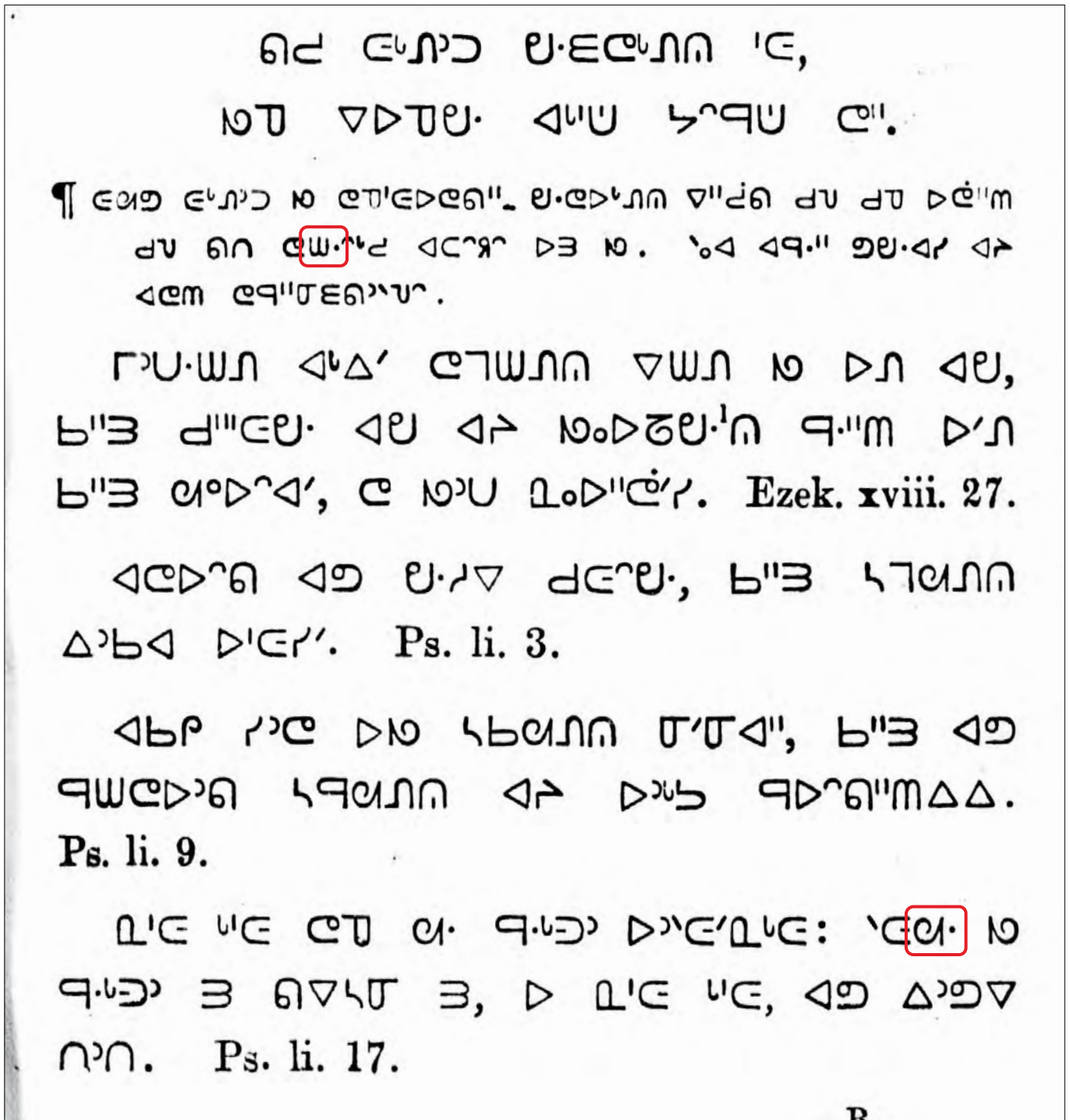


figure 19 From Garrioch's *Manual of devotion* of 1886, showing showing attestation for U+18F2 *ᑊ* Carrier *jwa*, and U+18ED *ᑎ* Carrier *gwu*.

Note that Garrioch's text, above, was printed in the Beaver language, using the Beaver Dene syllabics orthography. Everson and Harvey proposed in L2/08-342 to encode these characters with the corresponding character names "CANADIAN SYLLABICS CARRIER JWA" and "CANADIAN SYLLABICS CARRIER GWU", although listing it under "section 3, Additions for Beaver Dene."

From Garrioch, *Manual of devotion in the Beaver Indian language*, London, 1886.

Syllabarium.

INITIALS.	a	e	i	o	u	FINALS.
	◁	▽	△	▷	◊	◁wa;▽we
b	<	v	^	>	˘	◊wi;▷wo
ch	ε	Ϸ	ϡ	ϣ	ϣ̇	+ i
d	ϸ	Ϲ	Ϻ	ϻ	ϻ̇	c d
g	ϼ	Ͻ	Ͽ	Ͼ	Ͽ̇	˘ g
k	Ⓛ	Ⓜ	Ⓨ	Ⓩ	Ⓩ̇	˘ k
kl	Ⓢ	Ⓣ	Ⓝ	Ⓞ	Ⓞ̇	˘ r
l	Ⓠ	Ⓡ	Ⓤ	Ⓥ	Ⓥ̇	˘ l
m	Ⓦ	Ⓧ	Ⓨ	Ⓩ	Ⓩ̇	˘ m
n	Ⓟ	Ⓠ	Ⓡ	Ⓢ	Ⓢ̇	˘ n
s	Ⓣ	Ⓤ	Ⓝ	Ⓞ	Ⓞ̇	˘ s
sl	Ⓠ	Ⓡ	Ⓤ	Ⓥ	Ⓥ̇	
t	Ⓦ	Ⓧ	Ⓨ	Ⓩ	Ⓩ̇	˘ t
th	Ⓣ	Ⓤ	Ⓝ	Ⓞ	Ⓞ̇	˘ th
tth	Ⓦ	Ⓧ	Ⓨ	Ⓩ	Ⓩ̇	˘ accent
tz	Ⓣ	Ⓤ	Ⓝ	Ⓞ	Ⓞ̇	X Christ
y	Ⓣ	Ⓤ	Ⓝ	Ⓞ	Ⓞ̇	

figure 20 From Kirkby's *Manual of devotion and instruction in the Chipewyan language*, 1879, showing showing attestation for U+18EE ̇ Carrier Dene gee.

Note that the above text was printed in the Chipewyan language, using the Chipewyan Dene syllabics orthography. Everson and Harvey proposed in L2/08-342 to encode this character with the corresponding character name "CANADIAN SYLLABICS CARRIER DENE GEE", although listing it under "section 5, Additions for Chipewyan Dene."

From Kirkby, *Manual of devotion and instruction in the Chipewyan language*, 1879.

PH, KFW, PF.	ᐸ ᐸᐸ ᐸᐸᐸ	ᐸᐸᐸᐸ ᐸᐸᐸᐸ	ᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸ	ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ	
TTU, KKW, PPI	ᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸ	ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ	ᐸᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸᐸ	ᐸᐸᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸᐸᐸ	
TT.					
T', TT'.....					
KK.					
K', Kꞌ, Kꞌꞌ....					
Z.					ᐸ
W.					ᐸ
Y, J, JV.....					ᐸ
Z.....					ᐸ
VZ.....					ᐸ
H, et hiatus ...					ᐸ

Exemples d'écriture *Dènè* tirés de deux fables Peaux de Lièvre :

ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ
T'u-tsie-yau klanè etse koutli, èk'n tou yèça etchiy zho
ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ
adi : se yagè. duntio aliydi! se yagè, set'ono kodéyi!

Le fils du plongeon noir genissait sur le rivage,
Alors sa mère, en chantant pour l'endormir, lui disait :
Mon fils, c'est en vain que tu cries!
Mon fils, car mes entrailles sont insensibles!

Cette fable roule sur un jeu de mots. Le plongeon a la peau très-
dure (*bè l'ogè kodeyo*), et c'est en usant de cette phrase dans un sens
figure, que les Peaux de Lièvre disent d'une mère qu'elle a le cœur
dur.

ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ; ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ
Kkwiqpe tay t'utsié tay tad'n tayé'o: yadezen. T'atsay
ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ? ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ
eysin : nayekfwi yeykça tek'iutte? adi. Eyitta tekça
ᐸᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ ᐸᐸᐸᐸᐸᐸ
békfwi talarukkaw békfwi dekay adja siq.

Le plongeon arctique et le plongeon noir se promenaient sur une
expansion de rivière: ils étaient noirs tous deux. Lors le corbeau :
« Pourquoi nos têtes sont-elles toutes semblables? » dit-il. « Piqué à

D'autres mots dérivés sont formés de la tr à laquelle on ajoute un i. Ainsi de *yull'i*, il le parleur, le prieur (le prêtre), de *tatti*, il danseur. Mais ces mots ne sont usites qu guais et il ne faudrait pas en abuser.

Les Peaux de Lièvre forment quelques tant a une racine ou à la troisième person *zi*, *ziè* ou *nzè*, *ni*, *ri*. Ainsi de *hoö*, maladie *izh'a*, il galope. ils font *izh'aziè*, galop. Ces equivalent à des participes.

Les particules *da*, *dè*, *di*, *da*; *an*, *èn*, *in*, *o*, *ou*, *ko*, *kwò*, *kun*; *tse*, se rencontrent les parties du discours. Mais elles ne reçoivent liant aux racines.

15. — Les composés sont ou bien des com par la jonction de deux mots; v. g. *na-fwa*, lule, *ka-kual'* lacet à lièvre, *thi-danna*, gu sous multiples et polysynthétiques, et ce se noms verbaux formés de l'impersonnel ou d verbe, comme il a été dit plus haut; v. g. *bé* *kuyé-kelai*, celui qui chasse ou le chasseur pêche ou le pêcheur.

16. — Relativement à leur emploi dans en *dènè-dondjé*, dix sortes de mots : l'afixe défini, le nom, l'adjectif, le pronom, le ver la postposition, la conjonction et l'interje

Nous divisons ce précis de grammaire e Dans la première nous étudions les quatre cours.

La seconde est entièrement occupée par parce que le verbe est le principal elemen en effet, toutes les autres parties du discou la conjugaison, et par la même perdent le cours; ou bien elles rentrent dans la conjug diffeitifs.

Enfin, dans la troisième partie, nous ét nières parties du discours, et disons un mo maticale.

figure 22 From Petitiot, *Dictionnaire de la langue dènè-dind-jé dialectes montagnais ou chippewayan, peaux de lièvre et loucheux, renfermant en outre un grand nombre de termes propres à sept autres dialectes de la même langue*, 1867, showing attestation for U+18F0 ɛ Carrier gwa.
Note that the above text was printed in the Chipewyan language, using the Chipewyan Dene syllabics orthography. Everson and Harvey proposed in L2/08-342 to encode this character with the corresponding character name "CANADIAN SYLLABICS CARRIER GWA", although listing it under "section 4, Additions for Hare Dene."
From Petitiot, Paris, 1876.

2.7 Carrier Syllabics orthography (ᑭᑭᑭᑭᑭᑭ)

figure 23 The contemporary Carrier syllabary chart technical mapping, showing the proposed character revisions for Carrier, marked in the colours that group the respective issues that are being resolved.

Note that the unmarked finals characters are positioned at the syllabics top height line, as they share use with other syllabics orthographies within UCAS. A proposal for additions to UCAS has been prepared to request disunified finals characters for Carrier that would allow the unmarked finals to be correctly positioned at the vertical centre point, as is the preference for the Carrier syllabics.

The standard Carrier roman transcription system has been used for this chart. Additionally, IPA transcriptions have been provided where more clarity towards pronunciation is required for a syllabic series.

	a	u	e	i	o	oo	
	◁	▷	▷	▷	△	▽	
h	<	>	▷	▷	∧	∨	h
gh [ɣ]	◁	▷	▷	▷	△	▽	h
kh [x]	◁	▷	▷	▷	△	▽	//
w	◁	▷	▷	▷	△	▽	
wh [xw]	◁	▷	▷	▷	△	▽	
d [t]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	T
t [th]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
t'	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
p [b]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	⊥
g [k]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	/
k [kʰ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	\
k'	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	∨
n	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ U ng
m	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
y [j]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
j [tʃ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
ch' [tʃʰ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
l	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	l
dl [tʃ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
lh [ʃ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
tl [tʃʰ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
tt' [tʃ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
z	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	z z z
dz [ts]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
s	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	s s s
sh [ʃ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ
ch [tʃʰ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
ts [tʃʰ]	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
ts'	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	ᑭ	
[ʔ]							.

Proposed representative glyph changes for Sayisi

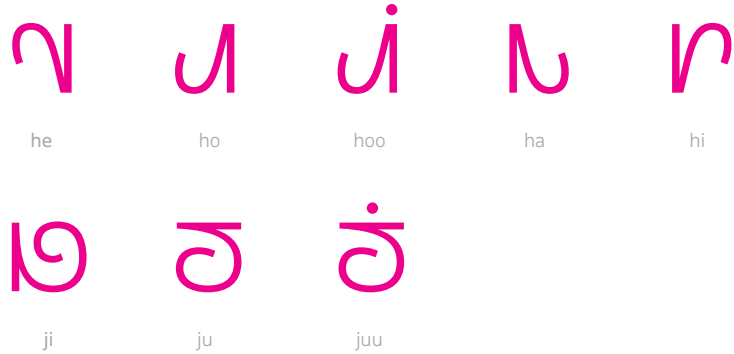
15C0	ᑎ	CANADIAN SYLLABICS SAYISI HE (figures 25, 26, 27, 28)
15C1	ᑏ	CANADIAN SYLLABICS SAYISI HI (figures 25, 26, 28)
15C2	ᑐ	CANADIAN SYLLABICS SAYISI HO • Sayisi (HU) (figures 25, 26, 28)
15C3	ᑑ	CANADIAN SYLLABICS SAYISI HA (figures 25, 26, 28)
1615	ᑒ	CANADIAN SYLLABICS SAYISI JU • Athapascan (ZO), Sayisi (TZU), South Slavey (DHO) (figures 25, 26, 27, 28)
161A	ᑓ	CANADIAN SYLLABICS SAYISI JI • Athapascan (ZE), Sayisi (TZE), South Slavey (DHE) (figures 25, 26, 27, 28)
18EC	ᑔ	CANADIAN SYLLABICS SAYISI HOO • Chipewyan Dene (GU) (figures 26)
18F1	ᑕ	CANADIAN SYLLABICS SAYISI JUU • Chipewyan Dene (TSU) (figures 26)

legend

■ Glyph shape / proportion change

3 CHANGES FOR SAYISI

This proposal requests revisions to the following representative glyphs for Sayisi Dene. The proportions of these characters are incorrectly represented in the current UCAS main and extended block code charts, and therefore produce incorrect results in the system-level typefaces Euphemia CAS and Noto Syllabics in digital text transmission.



As a member of the Déné Syllabics-using languages, the Sayisi Dene community prefers the use of the Square Form Syllabics style, which has been used since the earliest Sayisi printing in the late 19th century, all of which featured Square Form proportions. (figure 24)

It should be noted that Sayisi syllabics have similar graphic proportion and shape preferences to that of the Carrier syllabics, which also present in the Square form style. As a result of this shared graphic preference, characters such as U+161A ᑓ CANADIAN SYLLABICS SAYISI JI follow the same shape pattern as U+161B ᑕ CANADIAN SYLLABICS CARRIER JA. Additionally – due to a common visual appearance – U+1615 ᑒ CANADIAN SYLLABICS SAYISI JU and U+161A ᑓ CANADIAN SYLLABICS SAYISI JI were ordered sequentially within the range of disunified Carrier characters in the UCAS main chart. In order to note their distinction as being used for Sayisi (and the other Dene Syllabics orthographies), the suggested names list additions on pages 8 and 9 provides a subheading titled “Syllables for Dene and Sayisi” to separate them from the surrounding Carrier glyphs.

Additionally, note that some of the characters discussed in this section are also used by other Dene orthographies in UCAS in the same manner as is preferred by Sayisi.

The requested revisions to the code chart font have been depicted on pages 41–42, with descriptions and attestations in the sections and figures to follow.

3.1 Proposed changes for Sayisi

The following changes have been proposed to the code chart font in order to correct the issues with the representative glyphs for Sayisi.

	15B	15C		15B	15C		161	161
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
A								
B								
C								
D								
E								
F								

Legend

Glyphs shape / proportion change

18E	18F
ᑃᑦ 18E1	ᑃᑦ 18F1
ᑃᑦ 18E2	ᑃᑦ 18F2
ᑃᑦ 18E3	ᑃᑦ 18F3
ᑃᑦ 18E4	ᑃᑦ 18F4
ᑃᑦ 18E5	ᑃᑦ 18F5
ᑃᑦ 18E6	
ᑃᑦ 18E7	
ᑃᑦ 18E8	
ᑃᑦ 18E9	
ᑃᑦ 18E10	
ᑃᑦ 18E11	
ᑃᑦ 18E12	
ᑃᑦ 18E13	
ᑃᑦ 18E14	
ᑃᑦ 18E15	
ᑃᑦ 18E16	
ᑃᑦ 18E17	
ᑃᑦ 18E18	



18E	18F
ᑃᑦ 18E1	ᑃᑦ 18F1
ᑃᑦ 18E2	ᑃᑦ 18F2
ᑃᑦ 18E3	ᑃᑦ 18F3
ᑃᑦ 18E4	ᑃᑦ 18F4
ᑃᑦ 18E5	ᑃᑦ 18F5
ᑃᑦ 18E6	
ᑃᑦ 18E7	
ᑃᑦ 18E8	
ᑃᑦ 18E9	
ᑃᑦ 18E10	
ᑃᑦ 18E11	
ᑃᑦ 18E12	
ᑃᑦ 18E13	
ᑃᑦ 18E14	
ᑃᑦ 18E15	
ᑃᑦ 18E16	
ᑃᑦ 18E17	
ᑃᑦ 18E18	



legend

- Glyph shape / proportion change

3.2 Comparing the Round and Square form syllabics styles

figure 24 A comparison of the Round form (top) and the Square form (bottom), two differing styles within syllabics-using communities across North America. The Round Form (*Kâ-wâwiyéyaki* in Nêhiyawêwin) is commonly used for the Algonquian and Eskaleut language families, and geographically in eastern syllabics-using communities. The Square Form (*Kâ-ayisawéyaki* in Nêhiyawêwin) is used primarily for the Déné languages in the west of Canada, where these orthographies prefer to have their syllabics represented in the Square form style, including the Sayisi Dene Syllabics orthography.

The requested revisions to the Sayisi characters specified in this proposal are intended to return these characters to their correct Square form shapes, which is the appearance that the Sayisi user community expects for these shapes.

ROUND FORM

ᑎᑭᑲᑭᑲᑲ

ᐃ ᑲᑲᑲᑲ ᑲᑲ, ᑲᑲᑲ ᑲᑲᑲ, ᑲᑲᑲ
 ᑲᑲᑲ, -ᑲ. ᑲᑲᑲ ᑲᑲᑲᑲ ᑲᑲᑲ, ᑲᑲ
 ᑲᑲᑲ ᑲᑲ ᑲᑲᑲ, ᑲ ᑲᑲᑲ ᑲᑲᑲᑲᑲ
 ᑲᑲ ᑲᑲᑲᑲ ᑲ. ᑲᑲ ᑲᑲᑲ ᑲᑲ
 ᑲᑲᑲᑲ ᑲᑲ ᑲᑲᑲ ᑲᑲᑲᑲᑲ ᑲᑲᑲᑲ ᑲᑲᑲ
 ᑲ, ᑲᑲᑲᑲ-ᑲ ᑲᑲ ᑲᑲᑲᑲ ᑲᑲ.

SQUARE FORM

ᑎᑭᑲᑲᑲᑲ

ᐃ ᑲᑲᑲᑲ ᑲᑲ, ᑲᑲᑲ ᑲᑲᑲ, ᑲᑲᑲ
 ᑲᑲᑲ, -ᑲ. ᑲᑲᑲ ᑲᑲᑲᑲ ᑲᑲᑲ, ᑲᑲ
 ᑲᑲᑲ ᑲᑲ ᑲᑲᑲ, ᑲ ᑲᑲᑲ ᑲᑲᑲᑲᑲ
 ᑲᑲ ᑲᑲᑲᑲ ᑲ. ᑲᑲ ᑲᑲᑲ ᑲᑲ
 ᑲᑲᑲᑲ ᑲᑲ ᑲᑲᑲ ᑲᑲᑲᑲᑲ ᑲᑲᑲᑲ ᑲᑲᑲ
 ᑲ, ᑲᑲᑲᑲ-ᑲ ᑲᑲ ᑲᑲᑲᑲ ᑲᑲ.

3.3 Attestations for Sayisi

figure 25 The Sayisi Dene syllabics technical mapping, as seen in version 2.7 of the Sayisi Dene language learning app *Sayisi Dene dictionary*, 2017, from Binasii Inc. Showing attestation for U+15C0 ᑎ *Sayisi he*, U+15C1 ᑏ *Sayisi hi*, U+15C2 ᑐ *Sayisi ho*, U+15C3 ᑑ *Sayisi ha*, U+1615 ᑖ *Sayisi ju*, and U+161A ᑗ *Sayisi ji*

	a	e	i	o
	ᑎ	ᑏ	ᑐ	ᑑ
w	ᑖ	ᑗ	ᑘ	ᑙ
b	ᑚ	ᑛ	ᑜ	ᑝ
ch	ᑞ	ᑟ	ᑠ	ᑡ
d	ᑢ	ᑣ	ᑤ	ᑥ
g	ᑖ	ᑗ	ᑘ	ᑙ
k	ᑢ	ᑣ	ᑤ	ᑥ
kl	ᑢ	ᑣ	ᑤ	ᑥ
l	ᑖ	ᑗ	ᑘ	ᑙ
m	ᑞ	ᑟ	ᑠ	ᑡ
n	ᑞ	ᑟ	ᑠ	ᑡ
s	ᑖ	ᑗ	ᑘ	ᑙ
sh	ᑢ	ᑣ	ᑤ	ᑥ
t	ᑞ	ᑟ	ᑠ	ᑡ
th	ᑞ	ᑟ	ᑠ	ᑡ
tth	ᑞ	ᑟ	ᑠ	ᑡ
tz	ᑖ	ᑗ	ᑘ	ᑙ
y	ᑖ	ᑗ	ᑘ	ᑙ

Syllabarium.

INITIALS.	a	e	i	o	u	FINALS.
	◁	▽	△	▷	▷̇	◁wa, ◁we
b	<	v	^	>	v̇	◁wi, ▷wo
ch	ε	ω	ε	ω	ω̇	+ i
d	c	u	o	u	u̇	c d
g	Ⓝ	Ⓞ	Ⓟ	Ⓠ	Ⓡ	Ⓝ g
k	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓥ̇	Ⓢ k
kl	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓥ̇	Ⓢ r
l	Ⓝ	Ⓞ	Ⓟ	Ⓠ	Ⓡ	Ⓝ l
m	Ⓛ	Ⓛ	Ⓛ	Ⓛ	Ⓛ̇	Ⓛ m
n	Ⓟ	Ⓠ	Ⓡ	Ⓢ	Ⓢ̇	Ⓟ n
s	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓥ̇	Ⓢ s
sl	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓥ̇	
t	Ⓣ	Ⓤ	Ⓤ	Ⓥ	Ⓥ̇	Ⓣ t
th	Ⓢ	Ⓣ	Ⓤ	Ⓥ	Ⓥ̇	Ⓢ th
tth	Ⓣ	Ⓤ	Ⓤ	Ⓥ	Ⓥ̇	~ accent
tz	Ⓢ	Ⓣ	Ⓤ̇	Ⓥ̇	Ⓥ̇̇	X Christ
y	Ⓢ	Ⓣ	Ⓤ̇	Ⓥ̇	Ⓥ̇̇	

figure 26 The Sayisi Dene syllabary chart from Kirkby's *Manual of devotion and instruction in the Chipewyan language, for the Indians of Churchill*, 1879, showing attestation for U+15C0 ᑃ Sayisi he, U+15C1 ᑄ Sayisi hi, U+15C2 ᑅ Sayisi ho, U+15C3 ᑆ Sayisi ha, U+1615 ᑇ Sayisi ju, U+161A ᑈ Sayisi ji, U+18EC ᑉ Sayisi hoo, and U+18F1 ᑊ Sayisi juu.

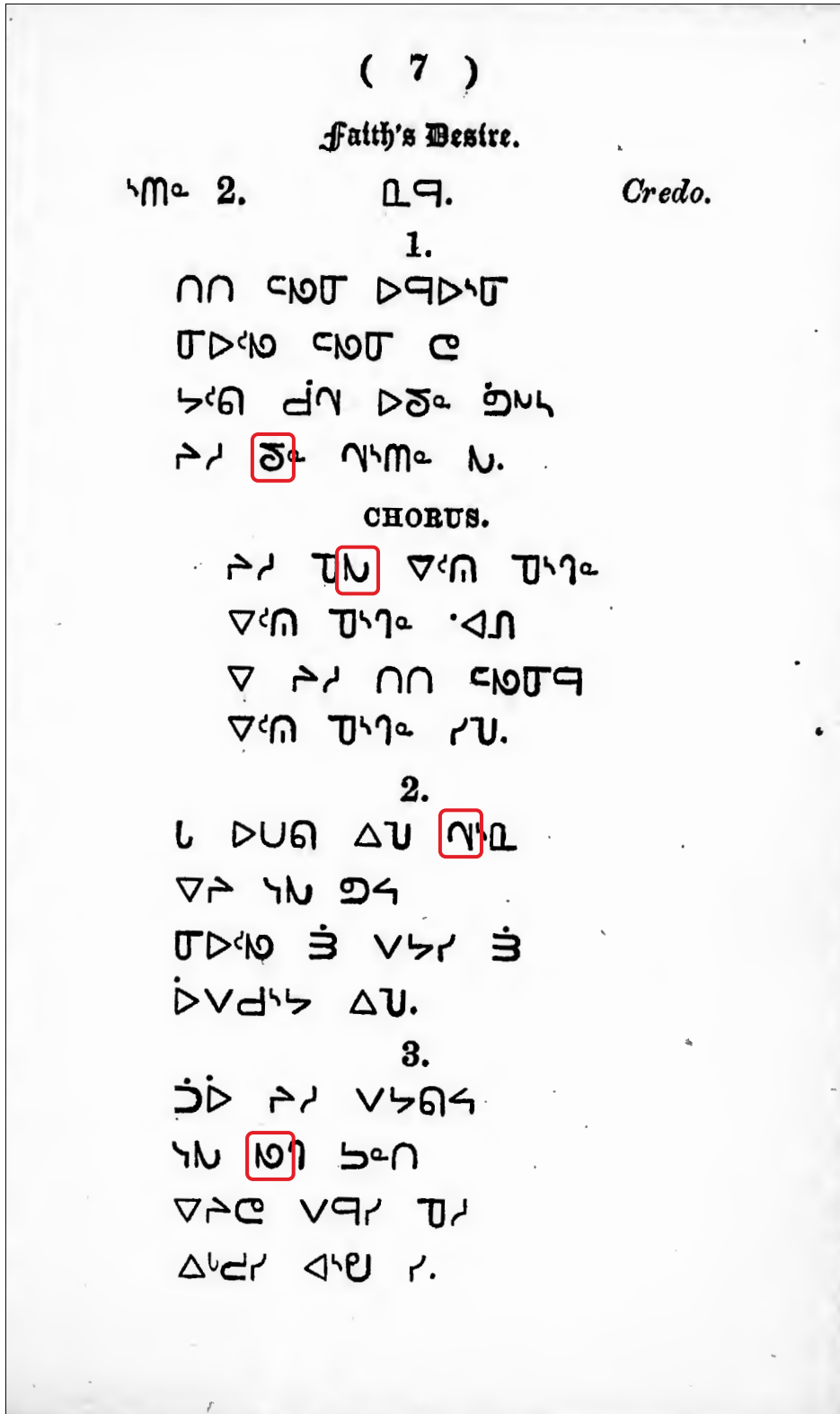


figure 27 Page 7 from Kirkby's *Manual of devotion and instruction in the Chipewyan language, for the Indians of Churchill*, 1879, showing attestation for U+15C0 ᑎ Sayisi he, U+15C3 ᓃ Sayisi ha, U+1615 ᓄ Sayisi ju, U+161A ᓇ Sayisi ji.

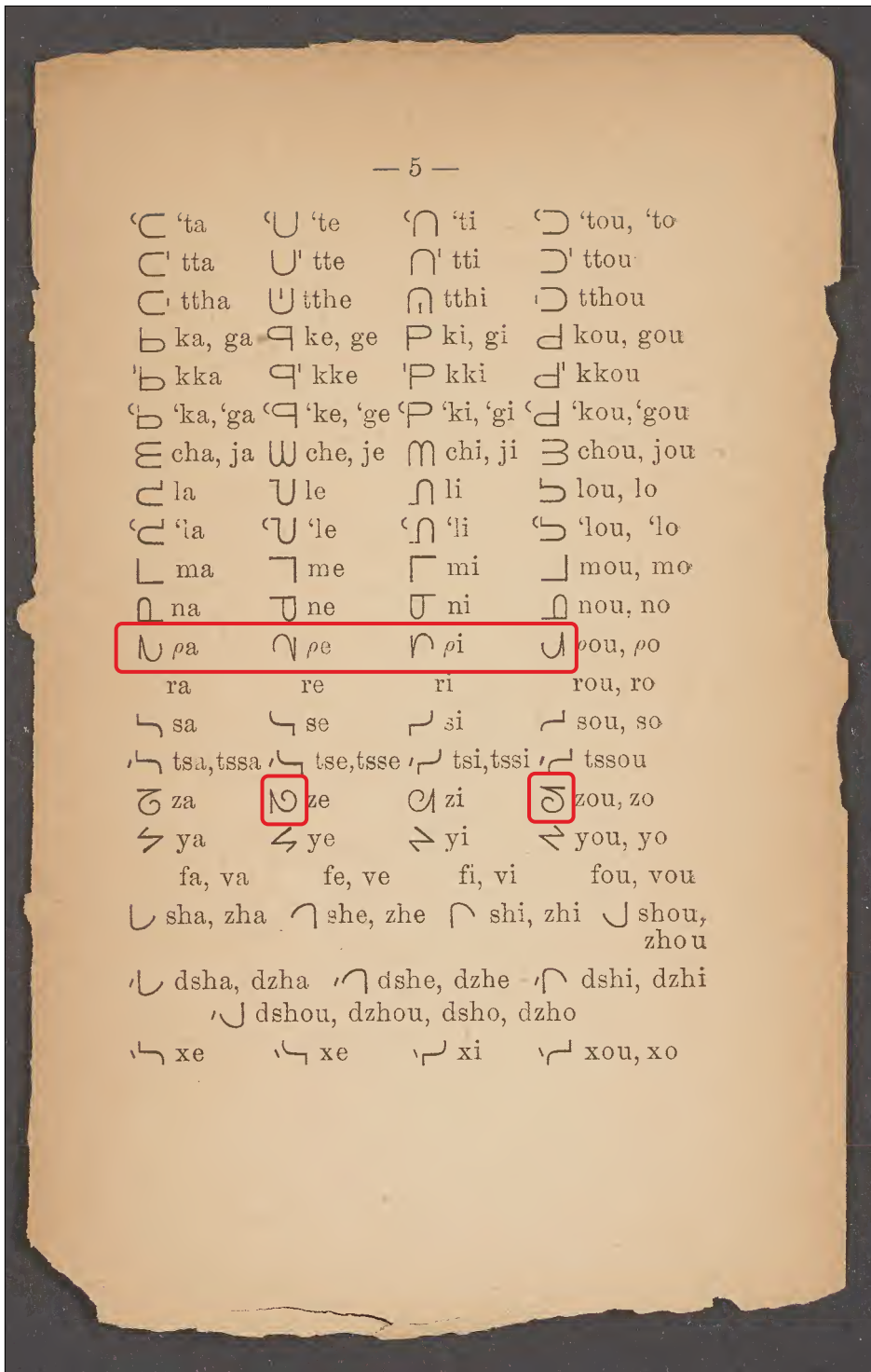


figure 28 From Père LeGoff, ᕐᕈᕐᕐ ᕐᕈᕐᕐ ᕐᕈᕐᕐ / *Livre de prières en langue Montagnaise*. C. O. Beauchemin & Fils, Libraires-Imprimeurs, 1890, showing attestation for U+15C0 ᕐ *Sayisi he*, U+15C1 ᕐ *Sayisi hi*, U+15C2 ᕐ *Sayisi ho*, U+15C3 ᕐ *Sayisi ha*, U+1615 ᕐ *Sayisi ju*, and U+161A ᕐ *Sayisi ji*.

3.4 Sayisi Syllabics orthography

figure 29 The following technical chart mapping shows the Sayisi Syllabics’s orthography, with proposed revised characters marked in red.

In the case of characters U+1615 ᑉ *Sayisi ju* and U+161A ᑏ *Sayisi ji*, the correct shapes for these representative glyphs are graphically related to the similar proposed revisions to the Carrier representative characters U+1614 ᑉ *Carrier ju* and U+161B ᑏ *Carrier ja*, with the only difference being the orientation of the syllabics to accommodate the Sayisi vowel and consonant structure.

Note that the syllabary chart, right, shows a row representing the *u* vowel, which does not appear in contemporary mappings of the Sayisi Dene syllabics orthography, such as the chart depicted in figure 11, from the *Sayisi Dene Dictionary* language learning app.

	a	e	i	o	u	
	◁	▽	△	▷	▷̇	
w	◁̇	▽̇	△̇	▷̇	▷̇̇	
b	<	v	^	>	>̇	
ch	ε	ω	м	з	з̇	
d	c	u	п	ц	ц̇	-
g	ᑎ	ᑎ̇	ᑎ̇	ᑎ̇	ᑎ̇̇	ı
k	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	\
kl	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	
l	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	/
m	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	c
n	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	ɔ
s	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	ɒ
sh	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	
t	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	ʊ
th	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	ɯ
tth	ε	ω	м	з	з̇	
tz	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	
y	ᑕ	ᑕ	ᑕ	ᑕ	ᑕ̇	
yē						x
ai						+
r						u
o						o
oo						.

Proposed representative glyph changes for Ojibway

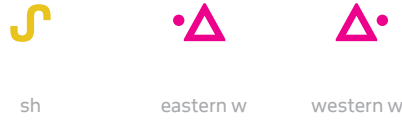
18DB	↺	CANADIAN SYLLABICS OJIBWAY SH (figures 33, 34, 36)
18DC	↻	CANADIAN SYLLABICS EASTERN W (figures 33, 36)
18DD	↻	CANADIAN SYLLABICS WESTERN W (figures 33, 35)

legend

- Character orientation revision
- Glyph shape / proportion change

4 CHANGES FOR OJIBWAY

This proposal requests a revision to the representative character of U+18DB CANADIAN SYLLABICS OJIBWAY SH, U+18DC CANADIAN SYLLABICS EASTERN W, and U+18DD CANADIAN SYLLABICS WESTERN W in the UCAS Extended code chart.



These characters were proposed for inclusion into UCAS in L2/08-132 in 2008, which requested encoding the unique variant of the *sh* final, as well as the variations in the final form of *w* in some Northern Ojibway-speaking communities, particularly those in the eastern portion of the region. Everson and Harvey identified the correct forms of these characters, and supplied the correct representative characters in L2/08-132. Despite this, the current extended block code chart font contains the incorrect representative characters for U+18DB CANADIAN SYLLABICS OJIBWAY SH, U+18DC CANADIAN SYLLABICS EASTERN W, and U+18DD CANADIAN SYLLABICS WESTERN W. (figure 33)

The requested revisions to the code chart font have been illustrated on p 50, with descriptions attestations in the sections and figures to follow.

4.1 Proposed changes for Ojibway

The following changes have been proposed to the UCAS extended code chart font in order to correct the errors in the representative glyphs for Ojibway.

	18B	18C	18D	18E	18F
0	ᐅ	ᐆ	ᐇ	ᐈ	ᐉ
1	ᐊ	ᐋ	ᐌ	ᐍ	ᐎ
2	ᐏ	ᐐ	ᐑ	ᐒ	ᐓ
3	ᐔ	ᐕ	ᐖ	ᐗ	ᐘ
4	ᐙ	ᐚ	ᐛ	ᐜ	ᐝ
5	ᐞ	ᐟ	ᐠ	ᐡ	ᐢ
6	ᐣ	ᐤ	ᐥ	ᐦ	
7	ᐧ	ᐨ	ᐩ	ᐪ	
8	ᐫ	ᐬ	ᐭ	ᐮ	
9	ᐯ	ᐰ	ᐱ	ᐲ	
A	ᐳ	ᐴ	ᐵ	ᐶ	
B	ᐷ	ᐸ	ᐹ	ᐺ	
C	ᐻ	ᐼ	ᐽ	ᐾ	
D	ᐿ	ᐾ	ᐿ	ᐿ	
E	ᑏ	ᑐ	ᑑ	ᑒ	
F	ᑓ	ᑔ	ᑕ	ᑖ	

	18B	18C	18D	18E	18F
0	ᐅ	ᐆ	ᐇ	ᐈ	ᐉ
1	ᐊ	ᐋ	ᐌ	ᐍ	ᐎ
2	ᐏ	ᐐ	ᐑ	ᐒ	ᐓ
3	ᐔ	ᐕ	ᐖ	ᐗ	ᐘ
4	ᐙ	ᐚ	ᐛ	ᐜ	ᐝ
5	ᐞ	ᐟ	ᐠ	ᐡ	ᐢ
6	ᐣ	ᐤ	ᐥ	ᐦ	
7	ᐧ	ᐨ	ᐩ	ᐪ	
8	ᐫ	ᐬ	ᐭ	ᐮ	
9	ᐯ	ᐰ	ᐱ	ᐲ	
A	ᐳ	ᐴ	ᐵ	ᐶ	
B	ᐷ	ᐸ	ᐹ	ᐺ	
C	ᐻ	ᐼ	ᐽ	ᐾ	
D	ᐿ	ᐾ	ᐿ	ᐿ	
E	ᑏ	ᑐ	ᑑ	ᑒ	
F	ᑓ	ᑔ	ᑕ	ᑖ	



Legend

■ Character orientation revision

■ Glyph shape / proportion change

figure 30 Although the correct representative character was proposed for U+18DB CANADIAN SYLLABICS OJIBWAY SH in L2/08-132, a change was made to the representative character in the chart font for the UCAS, resulting in the incorrect o-vowel position orientation (1) that is present in the current code chart for UCAS extended, as seen in the image, right, from the official code chart from Unicode 13.0.

In the correct orientation scheme for these representative characters, U+1525 ^o CANADIAN SYLLABICS SH, follows the a-vowel orientation (3), while U+18DB ^o CANADIAN SYLLABICS OJIBWAY SH, should follow the i-vowel orientation (2).

❶ INCORRECT O-POSITION FOR U+18DB OJIBWAY SH



❷ CORRECT I-POSITION FOR U+18DB OJIBWAY SH



❸ CORRECT A-POSITION FOR U+1525 SH



figure 31 In L2/08-132, Everson and Harvey proposed the correct form composition for U+18DC ^a CANADIAN SYLLABICS EASTERN W and U+18DD ^a CANADIAN SYLLABICS WESTERN W (2), however, the current chart font for UCAS extended incorrectly composes these glyphs (1).

The composition that Everson and Harvey proposed for their representative glyphs for these encoded characters in L2/08-132 follows the conventional pattern of the *w* dot mark (U+1427 ^o CANADIAN SYLLABICS FINAL MIDDLE DOT) as it is composed in conjunction with vowel (Δ or Δ) or syllable characters (α. or α.), centered at the midline of the glyph, between the baseline and topline. Attestation for this positioning of the middle dot in these finals is shown in figure 34.

❶ INCORRECT DOT POSITIONING FOR U+18DC & U+18DD



❷ CORRECT I-POSITION FOR U+18DC & U+18DD



figure 32 The table, right, shows the two orientation schemes that are found in Northern Ojibway dialect communities in Ontario, which vary between following the i-vowel or a-vowel orientation position. The i-vowel position orientation scheme has been highlighted in the table to show the pattern that U+18DB ^o Ojibway sh is required to fit into.

For a depiction of the entire Ojibway Syllabics orthography that shows the a-vowel and i-vowel syllable orientation schemes, please see figure 37 on p 55 in section 4.4.

A comparison of the i-vowel and a-vowel orientation positioning of finals in Northern Ojibway communities:

	I-POSITION	A-POSITION
sh	ʃ	ʂ
n	ɲ	ɳ
k	ɰ	ɱ
p	ɸ	ɷ
d	ɳ	ɴ
m	ɱ	ɲ
s	ʃ	ʂ

4.3 Attestations for Ojibway

8. Additional finals for Ojibway (U+A9EE..U+A9F7). [^] [^] [^] [^] [^] [^] [^] [^] /p/ /t/ /k/ /c/ /m/ /n/ /s/ /š/ /w/ /w/. Certain dialects (e.g. Northern Ojibway) use superscript i-finals instead of the a-finals used in eastern Cree and Inuktitut. Only one of these is currently encoded in the UCS, [^] /y/. For orthographies which place mid-dots before base letters, the w-final is U+A9F6 [^] CANADIAN SYLLABICS EASTERN w; for orthographies which position mid-dots after base letters, the w-final is U+A9F7 [^] CANADIAN SYLLABICS WESTERN w. See Figures 2, 14, 15, and 16.

figure 33 Detail from page 2 of L2/08-132, *Proposal to encode 39 Unified Canadian Aboriginal Syllabics in the UCS*, 2008, showing the correct representative character that Everson and Harvey proposed for U+18DB [^] *Ojibway sh*, U+18DC [^] *Eastern w*, and U+18DD [^] *Western w*. The text introducing these characters, above, provides a description by the authors on the preference that some Northern Ojibway dialects have towards using superscript finals following the i-vowel orientation. The current chart font has changed the representative form to an incorrect o-vowel orientation. Additionally, the current chart font has changed the correct positioning of the dot mark in relation to the closed triangle shape in U+18DC [^] *Eastern w*, and U+18DD [^] *Western w* to an incorrect position at the top of the closed triangular form.

Both the a- and i-vowel orientation schemes represent the same final pure consonant sound, however, certain user communities across the Northern Ojibway dialect region prefer to follow one scheme over another for stylistic purposes.

The primary issue with the current representative character in the UCAS code charts for U+18DB [^] *Ojibway sh* is that it follows the o-vowel orientation, which does not match the schematic for the other Ojibway i-position finals ranging U+18D4 – U+18DB in the UCAS extended block that Everson and Harvey proposed in L2/08-132.

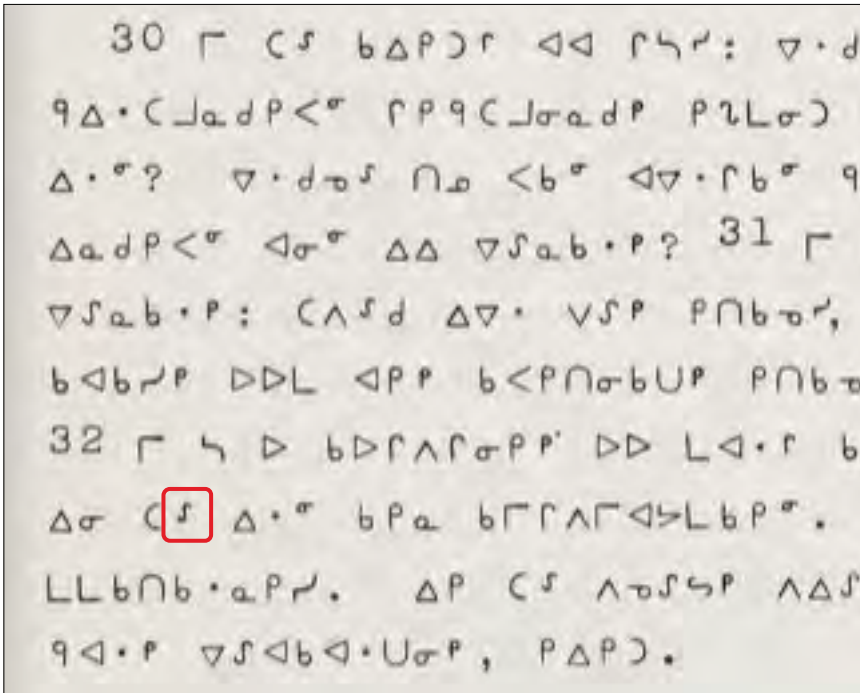


figure 34 A detail from page 35 of $\Delta\Delta\nabla\cdot\Gamma\alpha\cdot\Gamma\Delta\cdot\sigma\ b\Delta\alpha\cdot$
 $\text{OC}^\circ \triangleleft\triangleleft L^\circ$ / *The Gospel of Mark in Northern Ojibway*
(Saulteaux) and English (TEV), 1974, showing attestation for
 the correct orientation of U+18DB *Ojibway sh*.

Note that this text example also shows all finals following
 the i-vowel orientation scheme, which is supported by UCAS
 in the extended block character range U+18D4–U+18DD.

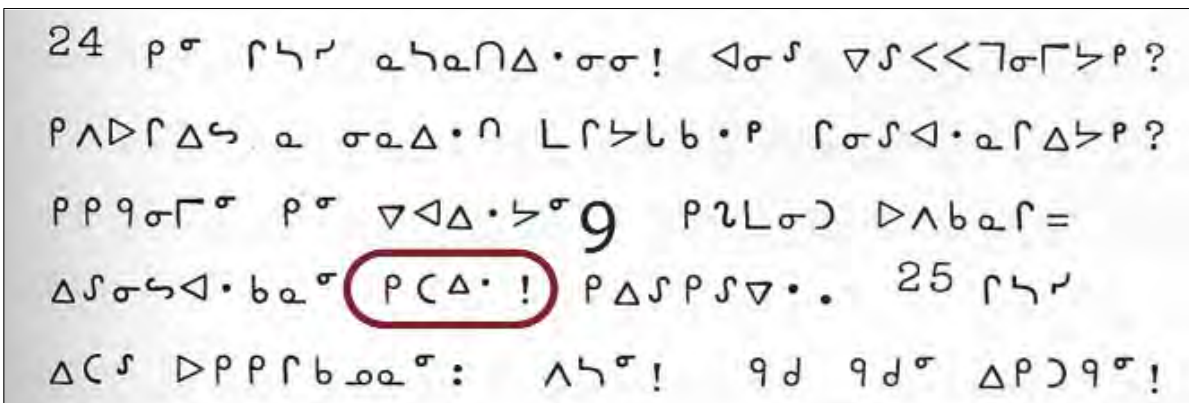


figure 35 A detail from page 23 of L2/08-132, *Proposal to*
encode 39 Unified Canadian Aboriginal Syllabics in the UCS,
 2008, showing the attestation that Everson and Harvey pro-
 vided for U+18DD *Western w*, taken from $\Delta\Delta\nabla\cdot\Gamma\alpha\cdot\Gamma\Delta\cdot\sigma$
 $b\Delta\alpha\cdot\text{OC}^\circ \triangleleft\triangleleft L^\circ$ / *The Gospel of Mark in Northern Ojibway*
(Saulteaux) and English (TEV), 1974.

This sample shows attestation for the correct representative
 character that Everson and Harvey proposed for U+18DD *Western w*, with the dot mark centered to the closed triangle
 final shape. This pattern was also used for the representative
 character for U+18DC *Eastern w*.

Consonant	Vowels				Finals		
	e	i/i1	o/oo	a/aa	West	East a-series	East i-series
none/h/?	▽	△	▷	◁	"	"	/ʔ/ △
w (West)	▽•	△•	▷•	◁•	°		
(East)	•▽	•△	•▷	•◁		°	° or .△
p	∨	∧	>	<	'	<	∧
t	U	∩	∪	∩	/	c	∩
k	q	p	d	b	\	b	p
c	ʎ	ʀ	ʝ	ʞ	-	ʞ	ʀ
m	ʎ	ʀ	ʝ	ʞ	c	ʞ	ʀ
n	o	o	b	p	o	p	o
s	ʎ	ʀ	ʝ	ʞ	o	ʞ	ʀ
š	ʎ	ʀ	ʝ	ʞ	c	ʞ	ʀ
y	<	>	<	>	•	ʔ °	△
r (West)	≧▽	≧△	≧▷	≧◁	≧		
(East)	∩	∩	∩	∩		∩	
l (West)	ε▽	ε△	ε▷	ε◁	ε		
(East)	∩	∩	∩	∩	∩		
sk					b	b	
hk					x		

figure 36 The technical mapping of the Ojibway syllabary chart, presenting local community orthographic preferences in Western and Eastern regions of the Northern Ontario dialect of Ojibway. Showing attestation for the correct orientation of U+18DB ° *Ojibway sh*, as well as the correct composition for the representative character for U+18DC ^ *Eastern w*.

There is variation in the preferred orientation of finals in Northern Ojibway communities, following the position of either the a- or i- vowel series in the orthography. The chart, above right, in the final two columns, shows the contrast between the two positional orientations across the shared finals characters in Northern Ojibway communities. Typically, the Ojibway and Oji-Cree communities that use “Western” finals (finals shapes / orientations that follow the Western Cree shaping for finals) use the same scheme across all language communities. Communities that prefer the use of the Eastern finals (which follow the Eastern Cree orthographic structure of using superscripted versions of the a-position syllabic orientation) show variation in the orientation scheme they choose to follow, notably between the a- or i-series position.

From Fiero, ‘Style manual for syllabics’, pp 95–104, 1985

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- ADRIEN-GABRIEL MORICE, ᐇᐇᐇᐇ ᐇᐇᐇᐇ ᐇᐇᐇᐇᐇ, ᐇᐇ ᐇᐇ, ᐇᐇᐇᐇᐇ ᐇᐇ, ᐇᐇᐇᐇᐇ ᐇᐇ ᐇᐇ ᐇᐇ ᐇᐇᐇᐇ ᐇᐇᐇᐇᐇ ᐇᐇᐇᐇᐇᐇᐇᐇᐇ / *Carrier prayer book, containing together with the usual formularies a complete collection of hymns, catechisms, directions relative to various points of Catholic life*. Stuart’s Lake Mission, 1901
- ADRIEN-GABRIEL MORICE, ᐇᐇᐇ ᐇᐇᐇᐇᐇ ᐇᐇᐇᐇᐇᐇᐇ / *Carrier reading-book*. Second edition, Stuart’s Lake Mission, 1894
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Summary of document changes

- 1** The black box markers have been removed, along with the legend reference "Glyphs affecting other Dene Syllabics orthographies in UCAS" entirely from the code charts on.

Changes to pages 6–9, 12–15, 17, and 45–47.

- 2** Added a note to the text on page 12 (section 2, Carrier) to describe the effect on the other Dene orthographies:

'Additionally, note that some of the characters discussed in this section are also used by other Dene orthographies in UCAS in the same manner as is preferred by Carrier.'

Changes to page 12.

- 3** Added a note to the text on page 40 (section 3, Sayisi) to describe the effect these changes have on the other Dene orthographies:

'Additionally, note that some of the characters discussed in this section are also used by other Dene orthographies in UCAS in the same manner as is preferred by Sayisi.'

Changes to page 40.

- 4** Textual changes were made to the code chart names list on pages 8–10. The multiple markers for "additions" were removed and simplified to one colour to denote additions instead (purple). Additionally, the green colour reference to "subheading change" was removed, and the purple "addition" reference was applied to this proposed change, with a red-coloured strike through to indicate the context of the change.

Changes to pages 8–10.