THE INTERNATIONAL PHONETIC ALPHABET (revised to 1993)

### CONSONANTS (PULMONIC)

<table>
<thead>
<tr>
<th></th>
<th>Biblial</th>
<th>Labiodental</th>
<th>Dental</th>
<th>Alveolar</th>
<th>Palatal</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
<th>Glottal</th>
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</thead>
<tbody>
<tr>
<td>Plosive</td>
<td>p b</td>
<td>t d</td>
<td>t d</td>
<td>c j</td>
<td>k g q g</td>
<td>g q</td>
<td>?</td>
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<tr>
<td>Nasal</td>
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<tr>
<td>Tap or Flap</td>
<td>f θ</td>
<td>s z</td>
<td>s z</td>
<td>c j</td>
<td>x y χ h f</td>
<td>h h</td>
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<tr>
<td>Fricative</td>
<td>φ β f v  θ ð</td>
<td>s z</td>
<td>s z</td>
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<td>x y χ h f</td>
<td>h h</td>
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<td>Lateral fricative</td>
<td>l b</td>
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<tr>
<td>Approximant</td>
<td>v j  l j w</td>
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<tr>
<td>Lateral approximant</td>
<td>l j x l</td>
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Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

### CONSONANTS (NON-PULMONIC)

#### Clicks
- Bilabial /b d/ as in:
- Dental /t d/ as in:
- Palatal /k g/ as in:
- Alveolar /s z/ as in:

#### Voiceless Implosives
- Voiceless labio-velar fricative /v w /
- Voiceless labial-velar approximant /y j /
- Voiceless labial-palatal approximant /k p /
- Voiceless epiglottal fricative /k p /
- Voiceless epiglottal fricative /k p /
- Voiceless epiglottal fricative /k p /
- Epiglottal fricative /k p /

### VOWELS
- Front: i y i u
- Central: e o a e o
- Back: o a o u
- Close-mid: e o e o
- Open-mid: a o a o
- Open: y i y i

Where symbols appear in pairs, the one to the right represents a rounded vowel.

### SUPRASEGMENTALS
- Primary stress:
- Secondary stress:
- Long:
- Extra-short:
- Half-long:
- Syllable break:
- Minor (foot) group:
- Major (intonation) group:
- Linking (absence of a break):

### DIACRITICS
- Voiced /n d/... /Broadly voiced /b a/
- Voiced /t d/... /Creaky voiced /b a/... /Apical /t d/...
- Aspirated /h d/... /Linguolabial /t d/... /Laminar /t d/...
- More rounded /w/... /Labialized /w d/... /Neutralized /e n/...
- Less rounded /j/... /Palatalized /t d/... /Nasal release /d n/...
- Advanced /y/... /Velarized /t y/... /Lateral release /d y/...
- Retracted /i/... /Pharyngealized /t i/... /No audible release /d i/...

### DIACRITICS (continued)
- Centralized /~/... /Velarized or pharyngealized /～/
- Mid-centralized //... /Raised /e ( / = voiceless alveolar fricative)
- Syllabic /'... /Lowered /e ( / = voiceless bilabial approximant)
- Non-syllabic /'... /Advanced Tongue Root /e /
- Rhoticity /'... /Retracted Tongue Root /e /
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**PHONETIC VOWELS**

- **Front**
  - High: i
  - Mid-high (Central): e
  - Mid-low (Central): æ
  - Low: a

- **Central**
  - High: u
  - Mid-high (Central): ø
  - Mid-low (Central): ø
  - Low: a

- **Back**
  - High: u
  - Mid-high (Central): ø
  - Mid-low (Central): ø
  - Low: a

Where symbols appear in pairs, the one to the right represents a rounded vowel.