Consonant Chart (Interrupters)				
	I.P.A	Webster	English	Italian
Voiced Consonants	[b]	b	box	bene
	[d]	d	do	dente
	[g]	g	go	gondola
	[3]	z	measure	
	[1]	1	long	lungo
	[m]	m	man	mamma
	[n]	n	no	naso
	[ŋ]	ng	ring	vengo
	[1]	r	red	rosso
	[v]	v	very	verde
	[z]	Z	zebra	c asa
	[8]	th	there	
Unvoiced Consonants	[dʒ]	j	joy	gioia
	[dz]	dz	adds	azzura
	[f]	f	fine	forte
	[gz]	gz	exile	
	[h]	h	high	
	[k]	k (or) c	kick	caro
	[3d]	jcl	edged	
	[ks]	ks	lax	
	[1]	1	milk	
	[դ]	ny	onion	ognuno
	[p]	p	pan	padre
	[s]	8	sing	sangue
	[[]]	sh	show	sciocco
	[ʃt]	sht	rushed	
	[t]	t	too	tutto
	[ts]	ts	rats	zio
	[tʃ]	ch	church	cielo
	[0]	th	thing	

Figure 6-1B. IPA Consonant Chart

ulate correct sounds. Take a portion of some text in your own language and attempt to transcribe all the yowels and consonants into IPA symbols.

Notice that the chart is divided in several ways. Across the top, the chart is divided by categories, including the IPA symbols for the sounds, the Webster dictionary symbol for the sounds, and both English and Italian examples of words using the particular sounds. Figure 6-1A is the chart for vowels, and Figure 6-1B is the chart for consonants. On the Vowel Chart (Figure 6-1A), there are further divisions, which have to do with the way in which a particular sound is produced or articulated. A brief discussion of these categories follows.

Vowels

Much time will be devoted to singing vowels as you study vocal technique, as it is "on the vowels" that we are able to make and sustain sound. As defined by William G. Moulton in his book *The Sounds of English and German (Moulton, 1962)*, and quoted by John Moriarty (from *Diction*, Moriarty, 1975, p. 5): vowels are "sounds articulated in such a way that the breath stream flows essentially unhindered along the median line of the vocal tract." Thus, "the vocal cords are in vibration."

The Tongue Vowels

[i] [e] [ɪ] [ε] [æ]

As you have probably guessed, tongue vowels are produced by changing the shape of the airflow in the mouth by positioning the tongue in different ways. In vowels known as tongue vowels, the tongue is more active than the lips in the formation of the sound. In speaking your own language, you have learned to do this subconsciously. Learning to articulate tongue vowels correctly for singing requires a bit of conscious effort to be sure the tongue is in the correct position for each vowel. This too will become a subconscious activity after a short time of conscious practice. Be aware, as you practice and try each sound, of how the tongue and mouth positions "feel."

[i] This is the designated symbol for the sound of the English language vowel in the word me. In English it can be spelled as: ee; ea; ei; ie; y; or just e. In pronouncing [i], the tip of the tongue should touch where the teeth meet the gums on the bottom jaw and the center of the tongue should arch upward. Acoustically, it takes a short, wide space to make this sound. Many untrained singers attempt to make this space by spreading the corners of the mouth, which also spreads the tone, making it less "warm" and certainly less focused. Rather, let the corners of the mouth remain loose and relaxed, drop the jaw so there is approximately an index finger's space between the upper and lower teeth and let the tongue form the correct space by arching in the

mouth. As you attempt to sing notes in the upper voice range on this vowel [i], you may drop your jaw lower and your tongue will retain its arch, thus giving good tone and vowel quality to the sound from lowest to highest pitches. Your mirror and tape recorder will be very helpful in achieving best results.

- [e] Allowing the tongue to drop very slightly lower, but retaining some arch, will move the sound into [e] as in the English words *date*, *bait*, or *gate*. This sound can be spelled in two different ways in the English language: *a*, *ai*. This sound is sometimes referred to as a *closed e*, which in no way refers to closing the throat but refers rather to the fact that the tongue is partially closing off the air space in the mouth by being close to the roof of the mouth. Try saying [i] and [e] back to back several times to feel the difference in tongue position. Remember to leave the lips in a loose and relaxed position. Do not spread the corners of the mouth. Try the exercises in Figure 6–2, and create some of your own exercises to be sure that you understand the concept.
- [1] Allowing the tongue to drop slightly lower than the position for [e] will help you to find the sound [1] as in mitten, it, fit. Again, be careful not to spread the corners of the mouth. Use the exercises in Figure 6-3 to help you with your own pronunciation of this sound.
- [ɛ] Dropping the tongue slightly lower than for the [1] will help you to find the next sound [ɛ] as in met, bed, dead. This sound also has a variety of spellings in the English language: e, ai, ae, ai as in "air," ae, as in "aestbetic." This is not an easy vowel to pronounce or sing because it requires a much more relaxed tongue than you would expect. Work from the [i] through the [e] and [1] and then to the pronunciation of [ɛ], so that you can feel the change in the tongue position for each distinct vowel. Try the pronunciation exercises in Figure 6-4 to help you feel the position of the tongue and its formation changes.
- [æ] This is the last and the lowest tongue position in formation of the tongue vowels. It is represented in the English language by the vowel "a" as