# AeroviewPlus
# Aerodynamic Measurement System

# Convenient One-Handed Operation



- Comfortable for the user to hold.
- Light weight handle can be easily held by users of all ages.
- Mask sits comfortably against the face.

# The Glottal Enterprises Mask Handle is Comfortable and Easy to use for Adults and Children

## Glottal

## The Competition

- The unit on the right shows the KayPentax PAS system.  Two hands are required to hold it up and it is significantly heavier than the Glottal Mask handle.

# Proprietary OroNasal CV Mask

## The AeroviewPlus System uses the dual chamber circumferentially-vented (CV) OroNasal mask

*All Aerodynamic measurement systems and Nasality Measurement System use this proprietary CV mask.  The masks are easily removed for use on a different handle or for cleaning.*

- The CV mask provides low distortion of the voice.
- You have the ability to do Inverse Filtering which cannot be done when a solid respiratory mask is used.
- The screens can be removed and easily cleaned.  If one gets damaged it is easily replaced.
- Extra screens and discs are provided with the mask
- It comes in two sizes.  One for adults and a small size for children. (one of each size provided with the AeroviewPlus System)

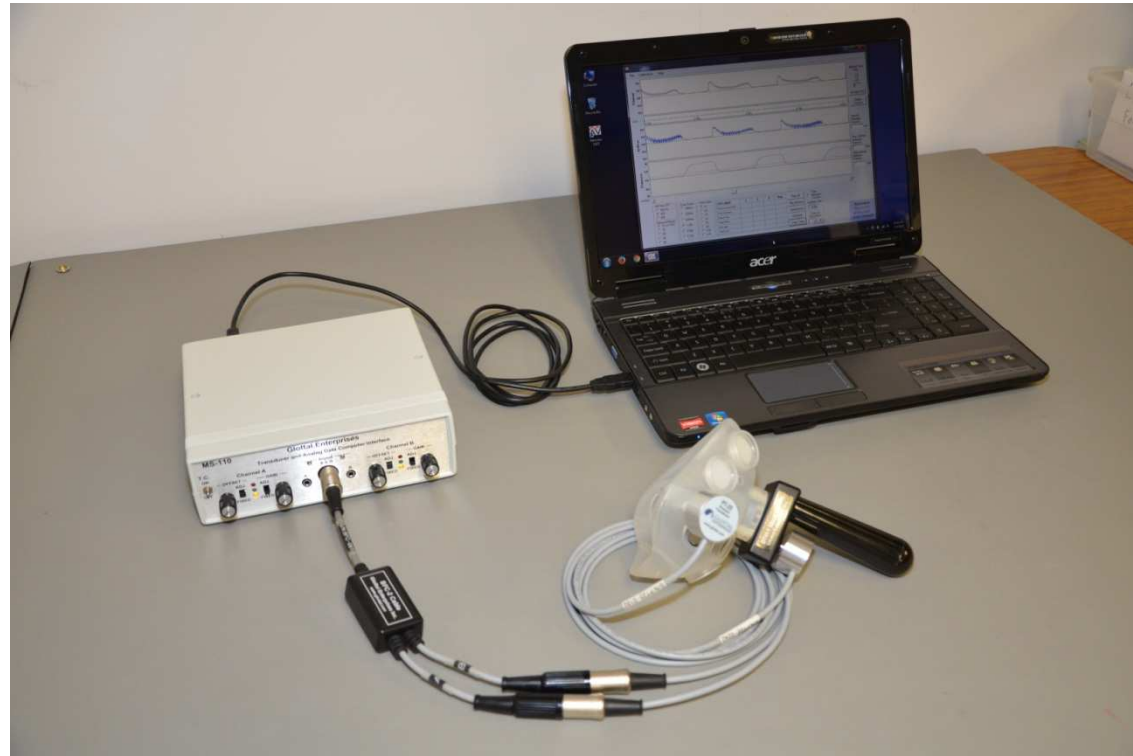# Low Speech Distortion

Kay Pentax PAS System    Microphone Only    Glottal Enterprises
OroNasal Mask

*(For audio sample, click on speaker icons)*

# Easily Movable Between Computers



- Can easily unplug and plug into the USB port of another computer, including any Windows Laptop.
- The software provided can be installed in up to three computers at no extra charge.
- Allows the system to be shared by multiple locations.

# Allows You to Measure
# Phonation Threshold Pressure (PTP)
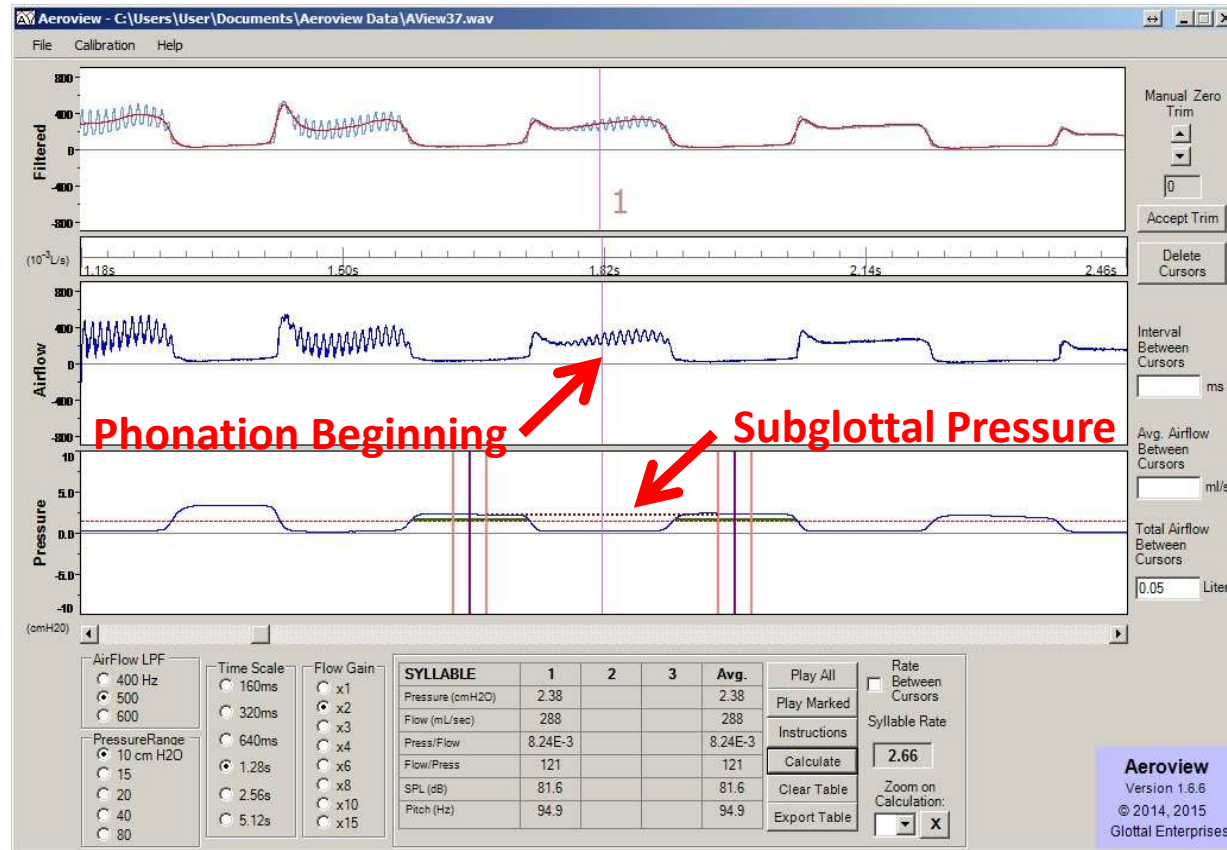


- The minimum level of lung pressure needed to sustain vocal fold oscillation at a specific pitch is referred to as the *phonation threshold pressure*.
- It is important as it helps to determine the condition of the vocal folds. For example, if they are stiff, such as with scar tissue or nodules, then the PTP will be higher.
- A singer strives to have lower PTP's as it puts less stress on the vocal cords.
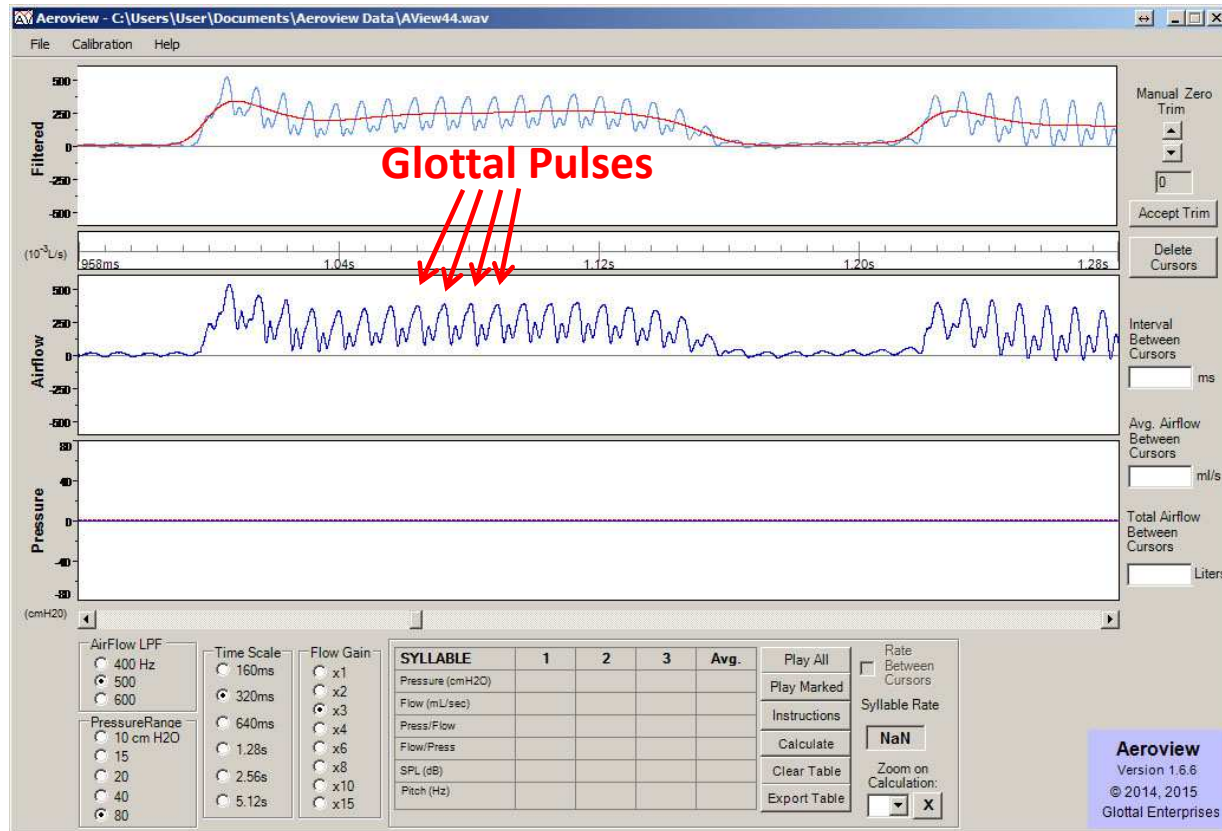
# Detailed Instruction Manual Included
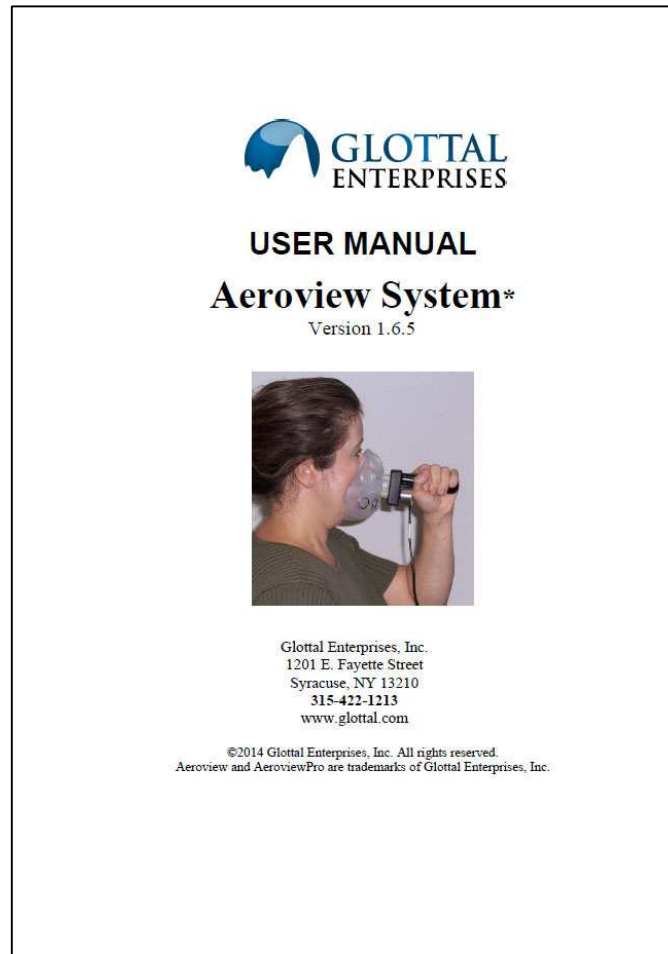
# Displays Low-Pass Filtered Airflow
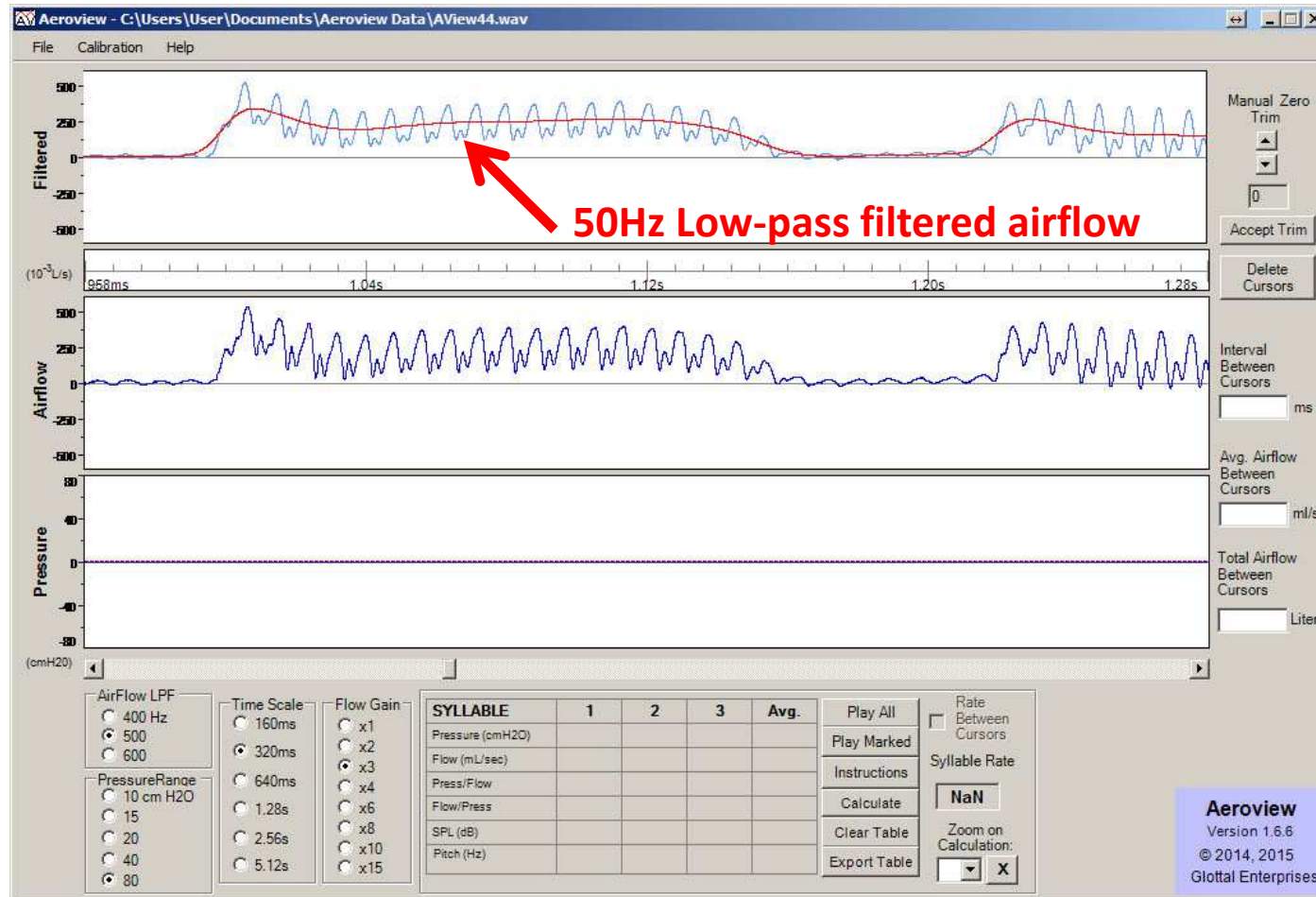


- Air pressure in the lungs and the resulting airflow is the driving force behinds all speech.
- Knowing the airflow measurement will help determine if speech deficiencies may be due to lack of lung pressure and resulting airflow.

# Displays Glottal Airflow Pulses



- The Glottal airflow pulse represents the opening and closing of the vocal folds.
- The shape of the pulse can indicate different problems with the functioning of the vocal folds which could include;
  - ✓ Scar Tissue, Polyps, Tumors, Vocal cord nodules, Breathiness, Spasmodic Dysphonia, Contact Ulcers, Vocal Cord Paralysis

# Automated Subglottal Pressure Interpolation from Intraoral Pressure
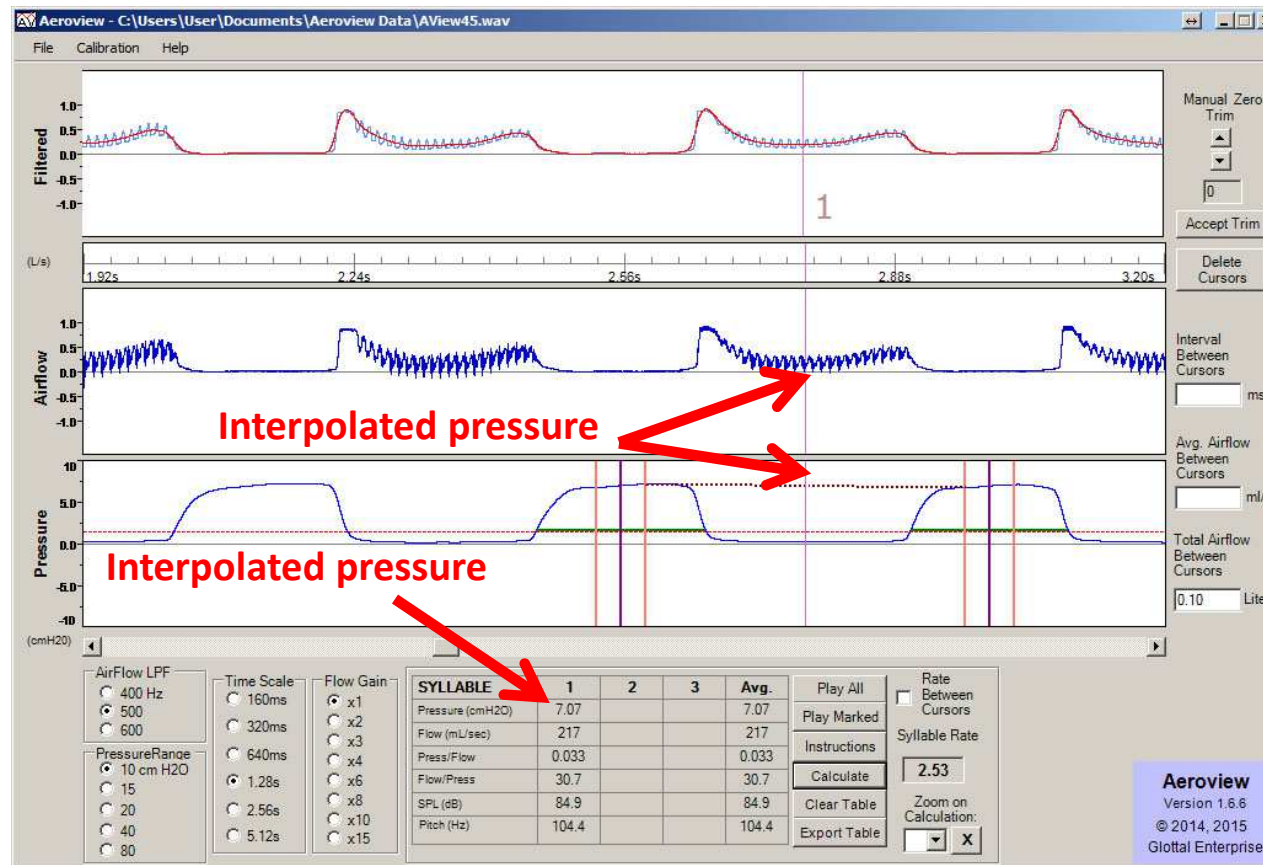


- Allows you to measure the subglottal pressure (or lung pressure) NON invasively.
- Subglottal pressure is important when determining vocal efficiency.

# Displays Average Glottal Flow Resistance



**Glottal Resistance (Rg) = Pressure/Flow**

- A high resistance indicates a more efficient voice.
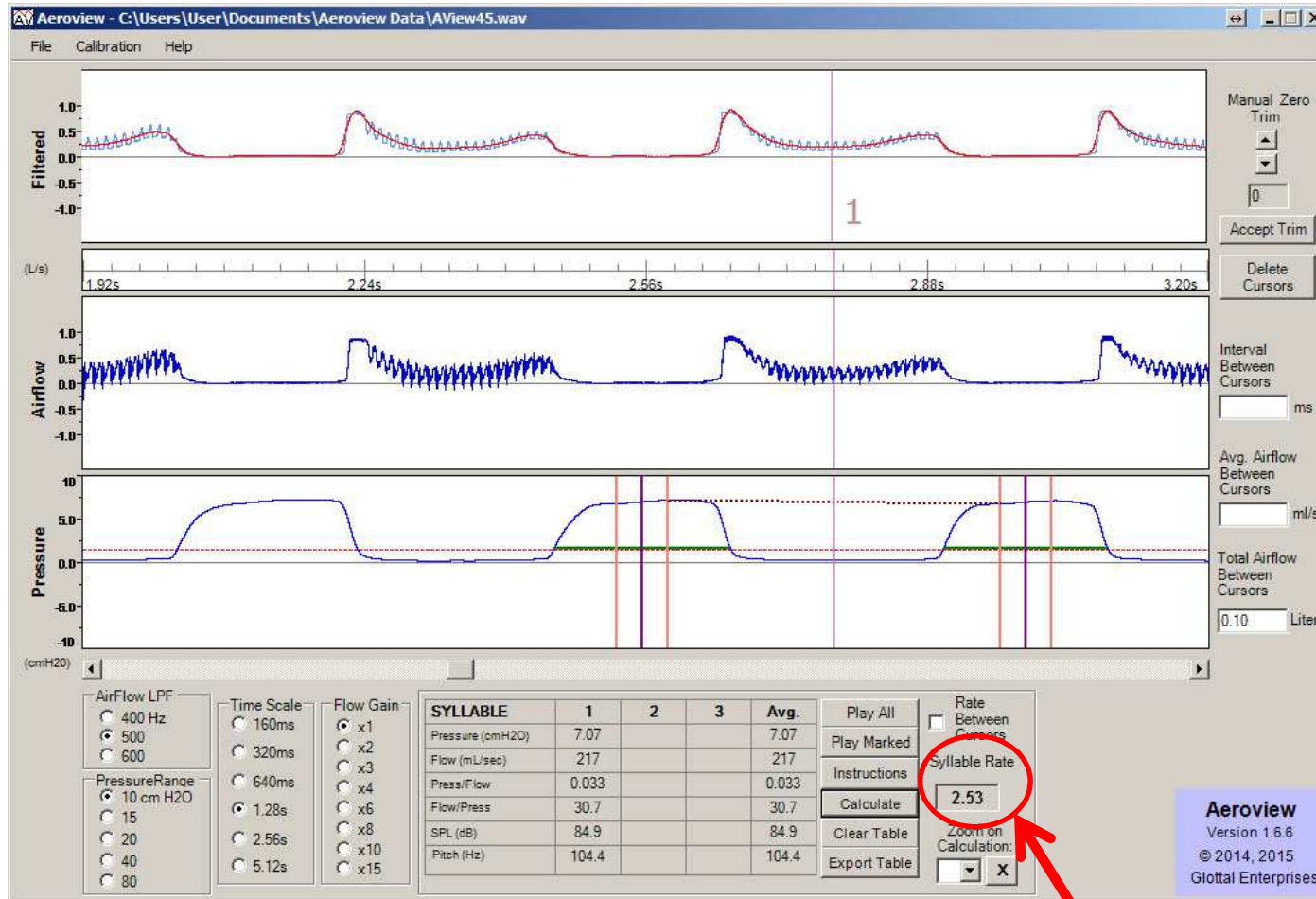- A lower resistance indicates a breathy voice.

# Displays Voice Fundamental Frequency



**Pitch = Voice Fundamental Frequency**

- Voice fundamental frequency is more commonly known as voice pitch
- Voice pitch is one of the more important parameters of the voice.

# Syllable Rate Shown Onscreen



**Syllable rate**

- An additional parameter that may be used for certain research studies

# Accurate Sound Pressure Level (SPL)



**SPL**

- SPL is the "loudness" of the voice
- Indicates voice strength
- Not available when using a closed respiratory mask as with the KayPentax PAS system.
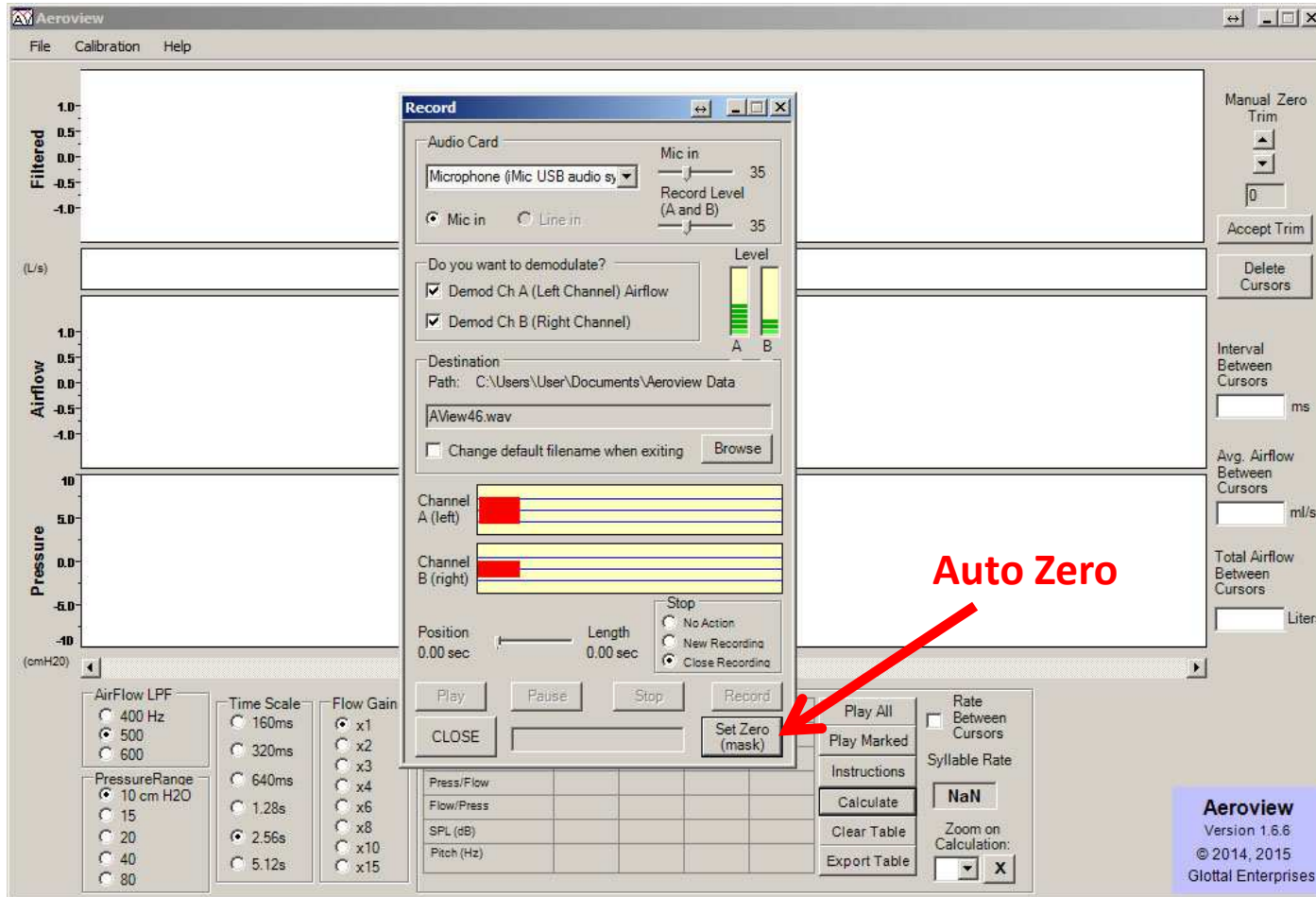
# Auto-Averages Over Three User-Selectable Syllables



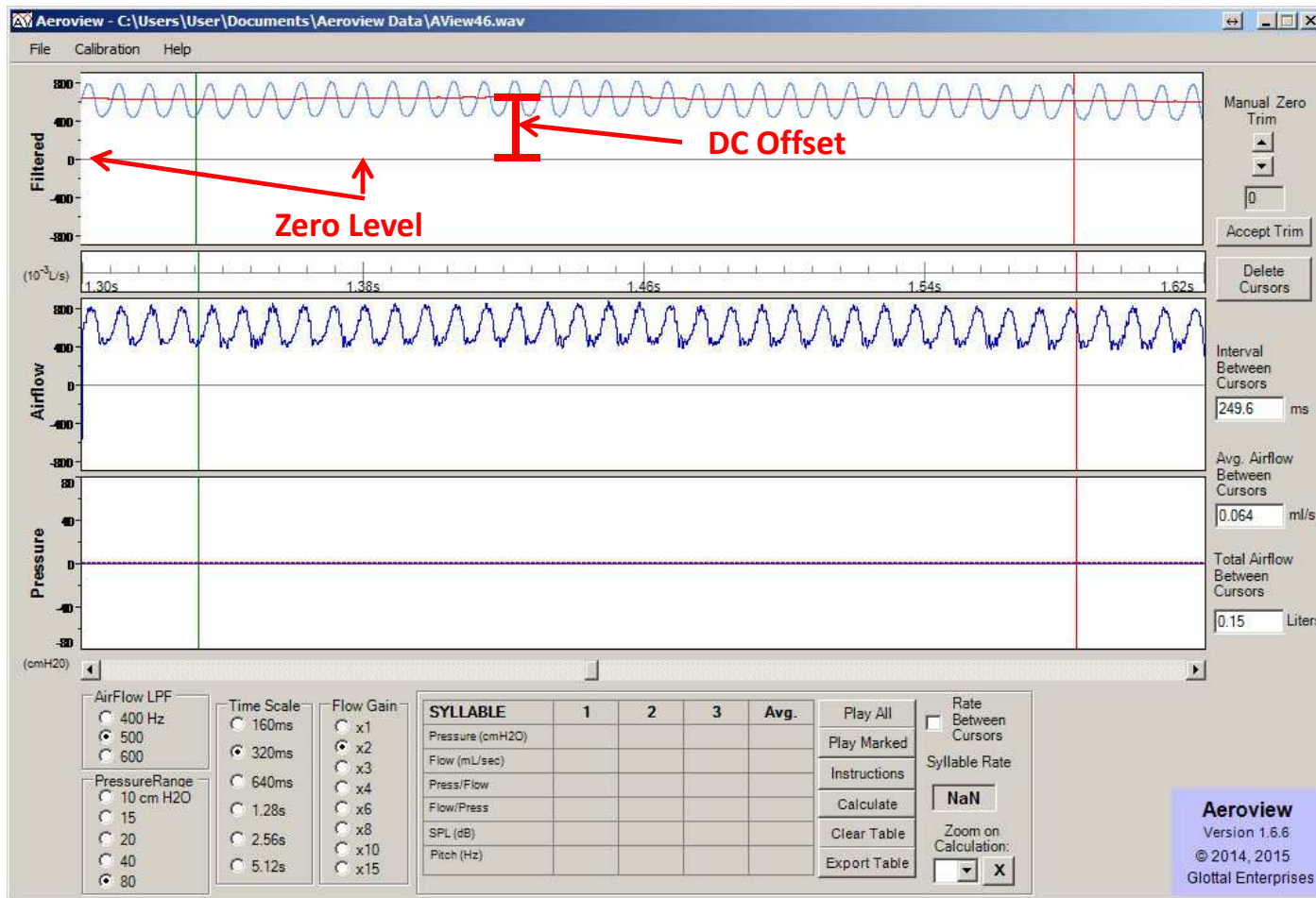**Calculations for 3 syllables with average**

- Allows you to easily compare three different syllables – provides data automatically
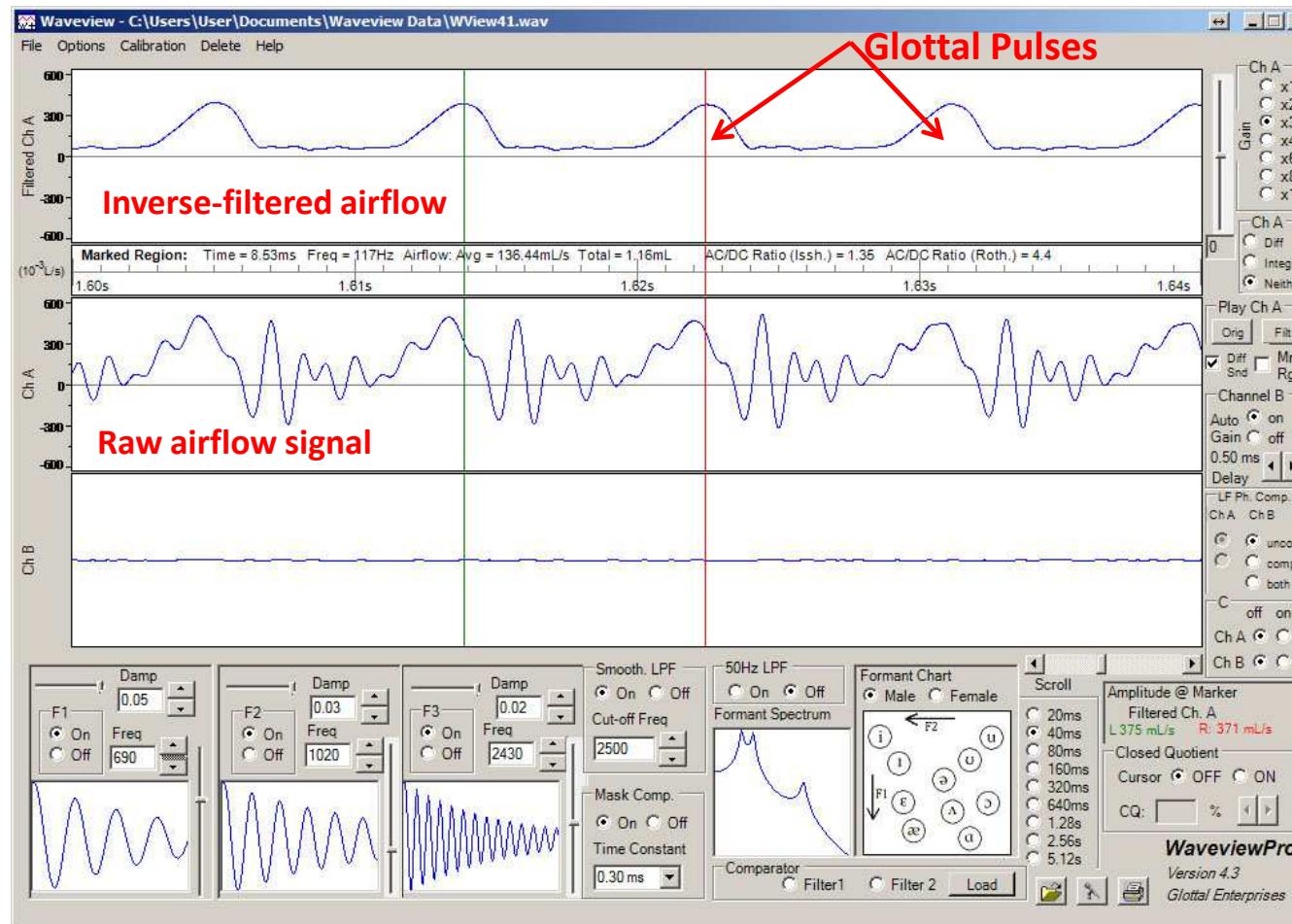
# Auto-Zero for Transducers



- Simplifies the zeroing of transducers for more accurate flow measurements

# Displays Offset from Zero Flow (Breathiness)

# Displays Detailed Glottal Pulse Waveshape Using Inverse Filtering



- The Glottal Pulse Waveshape can tell you the pattern in which vocal folds are opening and closing.
- Inverse filtering provides a more accurate glottal pulse waveshape compared to other systems that do not use a CV mask and inverse filtering.

# Can Display Two Airflow Channels (Oral and Nasal) from a Single Mask (with Dualview Add-on)
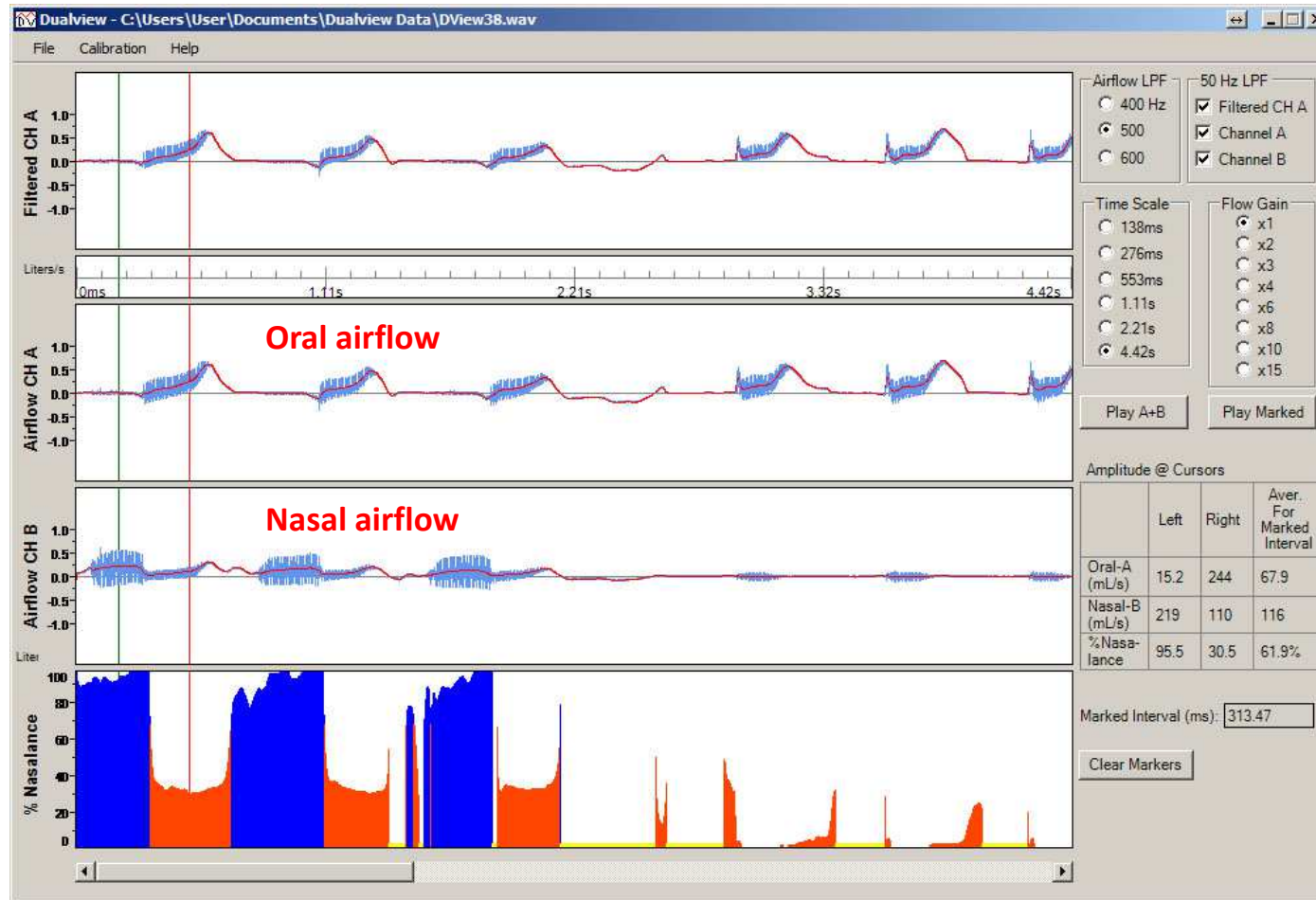


- Dualview add-on required the purchase of Dualview Software and one additional Transducer

# Can Compute the DC-Nasalance from the Oral and Nasal Airflows (with Dualview Add-on)
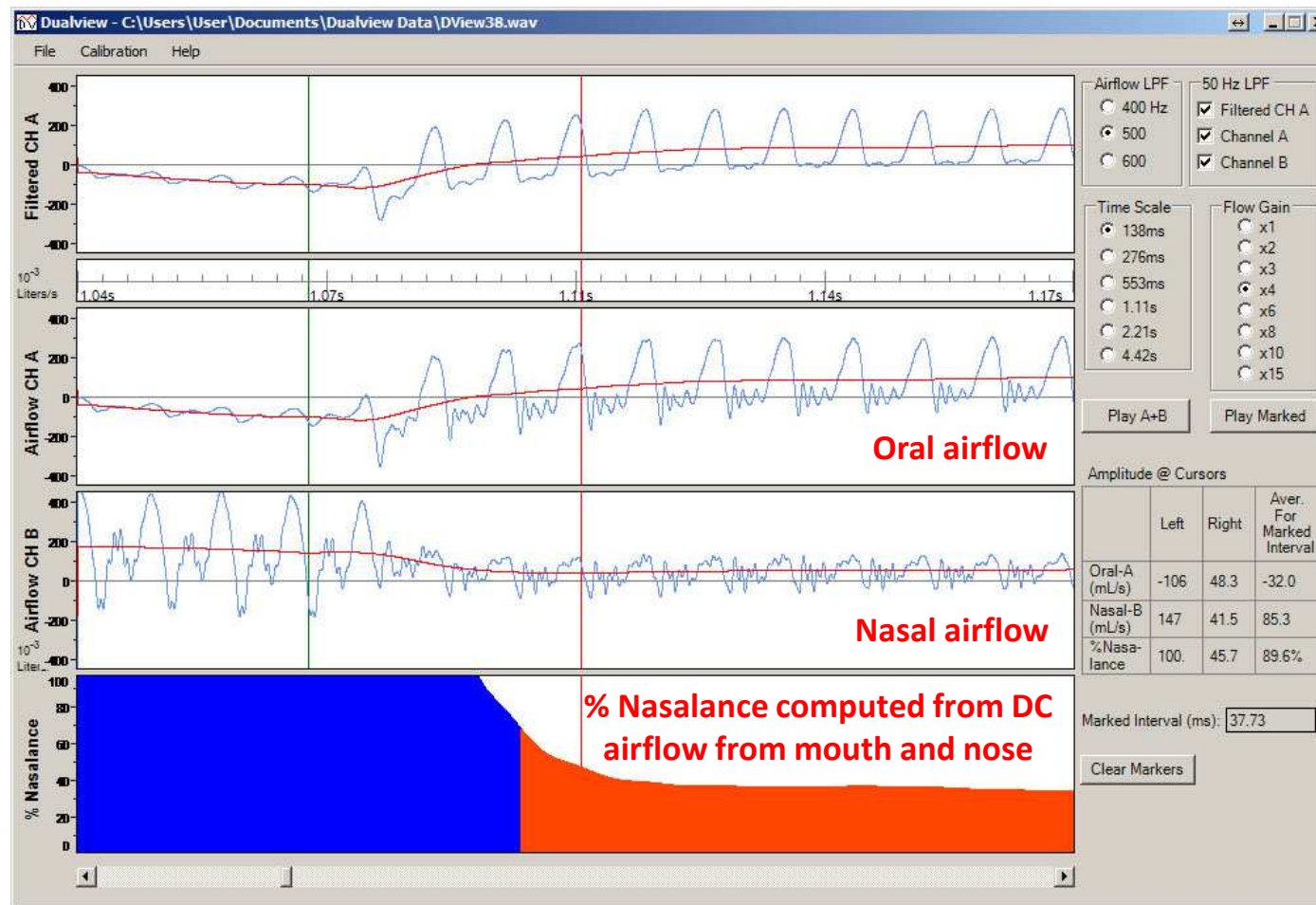


- Allows the most accurate measurement of nasalance.