



**Volume 4 - Winter 2012**

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## **This Issue of Windwords**

Welcome to the Winter 2012 issue of 'Windwords'. In this issue you will find the following topics...

**Photo Contest**- We are in the process of choosing the winner. We want to make sure everyone gets a chance.

**More Ultrasonic Anemometer Information**- More information about our Ultrasonic Anemometer Features and Options

**New Article Related to Flux Measurement** - We found an article which is a study of the measurement of vertical wind speeds between the orthogonal and non-orthogonal probes.

**New Link** - "CURIOSITY" - The New Mars Rover - Explore Mars with the new rover.

So please take some time and read on, and feel free to pass this information on to your friends and colleagues. Also visit us at Facebook, and please click the "LIKE" button.

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### **Photo Contest!**

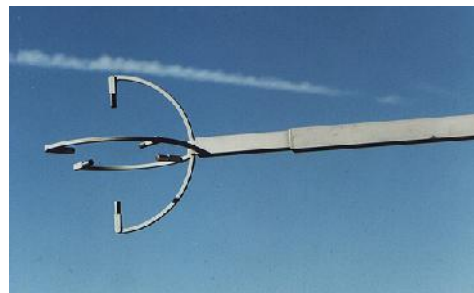


As we mentioned in our last Windwords, due to the timing of these publications, and trying to give everyone an equal chance, our contest will be closing shortly. The winning photo will be selected and the winner will be contacted and notified. The final announcement and the winning photo will also be made in our next edition of Windwords. We would like to thank all of you that did submit photos.

### **Windwords Archive**

For those of you who may have just received your first copy of this publication and would like to check out some earlier ones, you can find them at:  
<http://www.apptech.com/windwords.html>

### **New Ultrasonic Anemometer Electronics**



"Vx" Style Ultrasonic Array

Applied Technologies, Inc, has always provided a lot of options for our SATI

## **New Information about Flux Measurement**



For those of you that are involved in Eddy Covariance and measuring fluxes, we hope you all get the Journal of Boundary-Layer Meteorology, but for those that do not, there is a very interesting article in the 8 June 2012 issue. This is a study of the measurement of vertical wind speeds between the orthogonal probe and non-orthogonal probe.

The title is: ***"How Well Can We Measure the Vertical Wind Speed? Implications for Fluxes of Energy and Mass"***

Part of the conclusion of this paper reads "Measurements from this and other field studies indicate that the majority of the three-dimensional sonic anemometers utilized for eddy-covariance measurements underestimate  $w$  and the resultant fluxes of mass and energy by 10 – 15%."

If this is of interest, click [here](#)

If you would like to read the abstract, click [here](#).

If you have any questions for ATI, please don't hesitate to ask, click [here](#) to send us an email.

## **A New Link to Visit!**



series of Ultrasonic Anemometers, so we finally have documented them on our website.

If you need something extra for your ultrasonic anemometer or weather system, check out our Add-On Options page [here](#).

For those of you that are not aware of the functions available in the current design. Give us a call if you need assistance.

Here are a few of the operational features that are now available on the Ultrasonic Anemometer.

### **Output Options:**

- ASCII or Binary are both available
- Both can be switched between Terse or Verbose
- Any of the data words can be turned on or off
- Speed of sound is available, with or without temperature
- U and V axes can be turned into wind speed and direction

### **Sample Options:**

- If you don't want to average some spikes in the data, there is a median filter available
- There are commands you can use to improve the temperature accuracy

### **Trigger Options:**

- If you have more than one ATI sonic, you can synchronize all your sonics together so they are taking data over the same time period
- The sonic also outputs a sync pulse that can be used to synchronize other instruments.

If you have analog, they too can be synchronized with the sonics.

## **Contact Us**

(Photo courtesy of NASA)

"CURIOSITY" - The new Mars rover.

Mars Science Laboratory - <http://mars.jpl.nasa.gov/msl/>

Here is a link to a fun website that will allow you to explore Mars right along with the Curiosity Rover. Share this link with your kids too. Fun for everyone!!

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**Be sure to click the 'LIKE' button!!**