

Subject: Evasor Gallery Expedition Trip 20 Nov. 2010
From: "Nevin W. Davis" <nwdavis@mgwnet.com>
Date: 11/24/2010 9:22 PM
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Participants: Nevin W. Davis, Mike Broome, and Paul Winter

The purpose of the trip at least for this reporter was to further tie down where the air from the previously traced air connection from Back Yard Cave was entering Evasor Gallery. To this end early that morning I had placed an automatically reversing 1/2 hp. fan in the entrance of Back Yard Cave along with a data logger to record the reversing action of the fan, timing it to the nearest second. To Evasor Gallery in Butler I carried a very sensitive ultrasonic anemometer and another data logger. Paul and Mike carried Tony's rotary hammer and other equipment to set up a plastic curtain to limit the apparent size of the passage to the movement of the air.

The graph "Evasor Gallery Air 1" shows that the air entering at the end of the left hand passage from the 4 way junction follows the Back Yard Fan. That is when the fan is blowing into Back Yard Cave it blows out of the end of this passage and visa versa. The time delay is about 15 sec. more or less. The fuzziness seen on the graph is air "noise" due to turbulence and digital quantization error.

The graph "Evasor Gallery Air 2" shows the results of our set up near the entrance of Crisco Way just before the passage size changes from walking height into a large passage. At this location a plastic sheet was erected to block all air except that passing through a 2' x 2' opening at the top of a dirt bank. We used a 25 ft. long steel spring wire and plastic concrete anchors to secure the plastic sheet. Here the results are similar to the previous set up but with more noise on the signal.

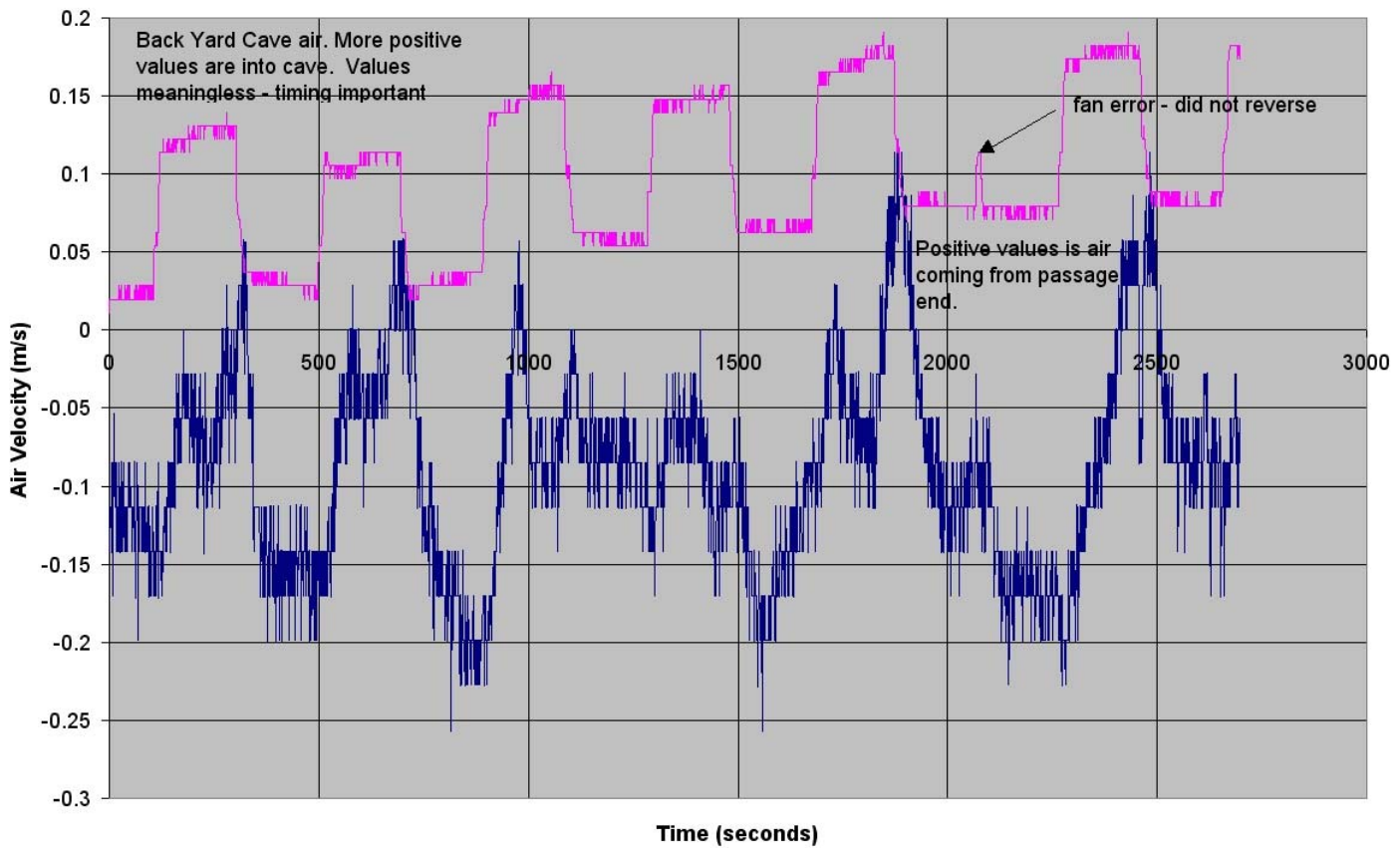
Nate Walter thinks that the air, at least near Crisco Way, is coming from a dome he mapped into this expedition. A bolt climb is needed to verify this possibility. The air at the end of the left hand passage at the 4 way junction is coming from a dig we worked on many years ago but it's a nasty place to dig since it's unstable and there's no place to put the spoils.

Many thanks to Mike and Paul for carrying the heavy equipment and coming up with ideas on how to secure the plastic sheet. When we left Evasor Gallery, Lisa Lorenzin accompanied us to the Butler entrance carrying the rotary hammer much of the way since Mike was nursing a sprained ankle from running a marathon the previous week.

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Nevin

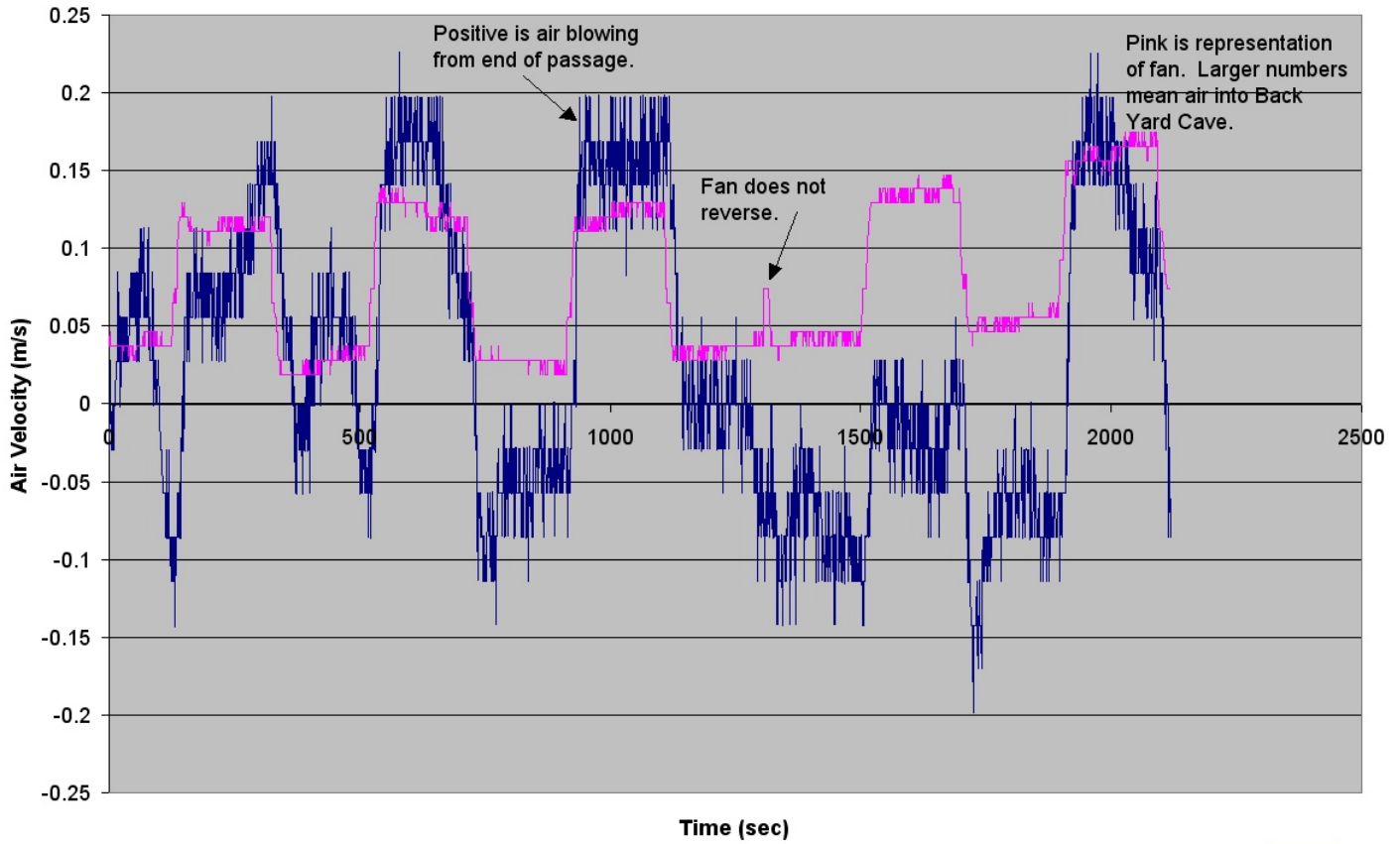
—Evasor Gallery Air 2.jpg

Air Velocity near entrance to Crisco Way



—Evasor Gallery Air 1.jpg

Air Velocity Near End of Left Hand Passage Evasor Gallery



Attachments:

Evasor Gallery Air 2.jpg	210 KB
Evasor Gallery Air 1.jpg	192 KB