Mary - For your review in preparation for our Wed. meeting. Thanks. Rob

VERMONT DEPARTMENT OF HEALTH LABORA
MEMORANDUM

TO: Alcohol Program Staff

FROM: Darcy Richardson

DATE: March 23rd, 2009

RE: Replacement of BAC DataMasters, Dra

Currently we are tasked with replacing the remaining instruments in use through the state. Two models of in that would suit our needs, the DMT by NPAS and the first 3 counties of Vermont we purchased the DataMa instruments, 17 of which are field ready and are currently in use. Two of the remaining are in laboratory testing and the third is in the process of becoming ready for laboratory testing. At the time of purchase the 9510 was not available.

Since January 12th, 2009 we have had a 9510 unit in house for testing. Accuracy and Precision performance has been equivalent to the DMT. The instrument is user friendly and uses USB keyboards and printers (with the same Windows CE restrictions as the DMT). An additional feature is the virtual keyboard when a physical keyboard is not attached to the instrument. The Alcotest 9510 has connections for many types of equipment. This would allow us to easily add peripherals and would allow us to use projectors directly from the instrument which would greatly aid in training of officers.

does the DMT? use USB keyboard + printer

Interference testing has shown that the instrument identifies interfering compounds well. Although further testing remains the interferant of concern, methanol, has been tested and is identified every time by the 9510 as an interferant. With the wavelength used for IR, acetone no longer acts as an interferant. The instrument has not accepted a test inappropriately through interference testing. The 9510, unlike the DMT, is radio frequency immune. This is a very valuable feature as we currently have agencies that are experiencing difficulty with multiple RFI interruptions. These interruptions take the instrument out of service and create arguments that we then must address in the court room.

DMT?

DMT?

1. Virtual Keyboard
2. radio frequency immune
3. no moving parts, less physical manipulation

The 9510 is well built with no moving parts. The detector and source line up simply by screwing them into the sample chamber allowing them to be lined up properly every time. Currently we physically manipulate every DMT that arrives in house to ensure that the detector is optimized and adjust voltage settings. We have replaced many filter wheels and chopper wheels in the DMTs we currently own and have often had to replace parts in the DMTs prior to the start of testing. The construction and engineering design of the 9510 would minimize the manipulation and maintenance we would have to perform on the instruments.

frequency ? Why shipping damage?

The 9510 uses both fuel cell and infrared energy in it's analysis of breath alcohol and appears on the Federal List of Conforming Products. Dual technology currently exists in 2 of the 4 main models of evidential breath alcohol testing equipment. We have recently been informed that NPAS will follow suit with the DMT. This will be a new venture for NPAS and will require a breaking in period. Draeger manufactures their own fuel cells

What are the benefits of dual tech?

and have used dual technology in their previous model, the Alcotest 7110. Their experience in this area means that we will not be spending time helping the technology become perfected in a new model.

In March of 2009 I contacted Barbara O'Brien at the Office of Alcohol Testing in Massachusetts. Massachusetts has 475 Draeger 7110 units and is in the process of ordering the 9510 model. They have been extremely pleased with the service they have received from Draeger, indicating that they (Draeger) are "very responsive" and stand by their instrument. They do not currently have their 9510 models in house as they are still determining what their software will be, changing their regulations and writing new software protocols for their 7110 units. She indicated to me that they are the hold-up in receiving new instruments, not the manufacturer. Their experiences with the 7110s have shown them to be extremely low maintenance. Beyond replacing fuel cells in the instrument which is expected, they have had very few repairs on any of their units. She indicated the instruments are "never on the bench" and that the repairs they have had to do amount to new breath tubes which can be performed in the field.

Mass. bought many instruments (475) ? less maintenance (our experience with DMT is probably too little at this point)

Although testing of the 9510 continues, it is my opinion that the Alcotest 9510 should be purchased for the replacement of the remaining BAC DataMasters in Vermont. This opinion is based on my own testing of the 9510, the design of the instrument, the experience of Massachusetts with Draeger and the experiences of our program with the DMT. Although we expect the Alcotest 9510 to be priced higher than the DMT, I believe that this additional cost will quickly be recouped through the reduced man hours needed to get the instruments field ready and keep them operating. We have already had to repair DMTs in the field in the first months of deployment. We are also still waiting on the software that was requested several years ago. It is my opinion that ordering the Alcotest 9510 over the DataMaster DMT will ultimately result in a quicker deployment and cost saving measures over the upcoming years through reduced numbers of repairs and reduced man hours spent on getting and keeping the instruments field ready.

? # of extent?