

Infrared Breath Test Equipment Replacement Plan

Vermont currently has sixty seven (67) IR breathe testing instruments sites throughout the state of Vermont, while the instruments are performing well it is becoming increasingly evident that the current fleet of instruments is aging.

The largest purchase of instruments was made in the late 1980's , and is signified be the instruments that begin in the 88xxxx as a serial number, there are about forty (40) of them in the state, about 10 of them are relegated to training purpose or are in need extensive repair. Some of the components of the instruments are no longer available, such as the printer, the Guth 34C-NP simulator to name two. There is one instrument that was acquired by a police agency in 1992, the remainder of the fleet consists of two (2) 1997 units, Thirty (30) 1995 units, Two (2) 1997 units and five 2000 units. Four of the last five units are currently in the Mobile units known as the BAT vans.

In 1996 the 40+ units that were punchiest Prior to 1995 were refurbished with several new printed circuit boards to include some up dates, they were calibrated and certified and returned to operation.

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Some of the Equipment that is currently in use is getting very close to it's twentieth birthday, Equipment of this type is expected in the industry of having a life expectancy of 10 years, With our excellent equipment maintenance program we can extend the life of some of the equip past the ten year mark, but it would not be expected to last much longer before the cost of ownership of this equipment becomes more then what new equipment would cost.

While there are many ways that replacement can be done it is the recommendation of Vermont Department of Health Public Health Electronics Technician (PHET) that a perpetual replacement schedule be adapted for DataMaster replacement. There are many benefits to this type of replacement scam. First being that an up front cost of almost \$500,000 dollars is not required. Second there is no need to hire a limited service position at an estimated cost of \$125,000. Many IR instruments can be purchased for \$125,000. Third is limit the cost of retraining an enter State of Police officers, (if needed) to the use of new instruments. Forth Storage and distribution of new instruments, there is a very limited amount of space within this lab to take delivery, open, check out and quardinate the training, use and certification of a large number of instruments.

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At the present time, we probably should have started to replace instruments two to three years ago. With four or five instruments a year. There are currently NO replacement instruments ready for field use. The recommendation of the PHET is to Purchase Twenty Instruments during this fiscal year. After this fiscal year purchase four to six instruments of the same type and model year after year. A plan of this type will eliminate our exposure to vintage issues. (a problem associated with bulk purchase) It will also eliminate staffing, storage and many other problems associated with a bulk purchase.

Power conditioners, it is the recommendation of the PHET to Purchase Power conditioners that have an Uninterruptible Power Supply (UPS) Built in This can be acquired from Tripp Lite. (The same company that made our current power conditioners.) Again a Phased purchase would be good here because UPS's have a shelf life and a life expectancy with the battery. The reason for moving to this type of Power Conditioner with a UPS built in is more and more agencies are "testing" the emergency generators, in doing this they are shutting down the building line voltage, starting up there generator running on the generator for a period of time and then switching

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back. Unfortunately this power down and Power up of the building is not seamless or smooth, and in one location may have caused the need for at least one calibration of the instrument, and did cause many service calls, and many days of out of service time before the instrument supervisor told us about the generator load test, and noted that “it caused a lot of problems with our computers until we put UPS’S on them.” Unfortunately, the combination of separate UPS and Line conditioner is not recommended by the Manufacturer of both units so a replacement is necessary.

Limited service position would not be needed in a phased perpetual replacement plan. The replacement of instruments would become part of the day to day activity.

Phone Line Placement this figure of 80 phone lines has been significantly reduced in the past year, we are currently remotely connected to ALL VSP sites by dedicated phone line, or an extension from the DPS phone system and in one case a fax line through a Fax / Modem switch. Many other municipalities have or are coming on board with various different types of configurations, several have a dedicated phone line several have an analog phone extension, many have a Fax line with a fax modem switch one even

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has an extension then a fax / phone switch. To date we are connected (seamlessly) to about 40 instruments, with another 10-15 requiring someone at the PD to plug in a phone line. There are 10-15 that still have no connection as Yet.

Vermont Department of Health electronics lab / shop equipment replacement and or upgrade. Several items that are needed, upgrade or replacement of Oscilloscope to a color digital unit, with off board printing capability cost ~\$4000. Addition of two Digital multi meters ~\$300, addition of another set of field tools and tool Box ~\$400. Misalanious small tools ~\$500, and addition of a Personal Digital Assistant with software ~\$300. Dedicated Service vehicle (full Size) ~\$20,000. Computer, Software and hardware to make e-Proms ~\$5000.

Parts and Supplies inventory, very hard to estimate this cost wise, based on current usage ~\$15000 per year.

Tickets, the production of the actual tickets currently has several problems, the current internal printers are no longer made and increasingly harder to find parts for and or repair. The upgrade to the current printers is very costly,

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and also difficult to accomplish. It is the recommendation of the PHET that we move to an off board stand alone Printer that prints three copies of the ticket, the software and technology is now available to integrate to almost any printer, and in many cases a printer that is already owned and in operation at the IR Site may be able to be used. This approach would get us out of the Paper supply business, reducing the cost of the program, and in many cases remove us from the printing business all together. Support for this would be much like our phone connectivity right now, in that each agency may be unique, we may need to supply a Printer interface or a standalone Printer both having a cost associated of about \$150 each. When this is compared of upgrading the current printers that we have right now of more then \$600, it is clear that this would be a money saver.

Police Officer and IR Supervisor Training / Retraining, with a phase in plan would be much easier and cost much less. The supervisor training would be at least 1 year after the install of the first County (s) of instruments.