



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
MANNED SPACECRAFT CENTER
HOUSTON, TEXAS 77058

IN REPLY REFER TO:

Dear Dr. Luft

A snowstorm aborted our plans to see Albuquerque. I've enclosed a report on a feasibility study done under my direction at S.H.R.I. It was originally started, as most NASA programs all to many programs are, as a ^{crash} ~~on a minimum budget~~ effort to "lets get something" on AAP. When the inevitable slip occurred it was somewhat redirected. Although there is little new or different the 'computer' is flexible and if enough to handle instantaneous, average or batch sample inputs from virtually any volume/concentration transducer arrangement. The sampling system shown worked better than I expected but unfortunately we could not properly evaluate or calibrate the



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instrument at J.H.R.D., since they had already put some of their own time in to finish the devices since all medical money at NASA is ^{now} voraciously consumed by IMBLMS & Martin. The device coupled to a mass spec. and an improved volume measuring system (~~we have one on the drawing boards~~) (the turbine used was probably well in large error in actual respiratory measurements) would probably be a step forward in accuracy & convenience for earth & space laboratories. It has gone. The unit has been shipped to MSC where it will be in the hands of another contractor. Wish there were some way to follow this up to SWRI for we developed some real skills there in ~~the~~ engineering personell.

My impressions of this ^{old} problem is that we still don't have flow/concentration transducers