C05026214

Discussion Between George Price & [ ]

11 February 1971

[ ] expressed an interest in the capability of making use of (ΔT) information in a [ ] or pseudo real-time environment. After discussing the situation with Lee Hammarstrom and RDM and presented the following "rough" proposals to [ ] for his comment. These proposals make the following assumptions:

1) Three operational units (PDE's) are presently funded.

2) An initial committment now toward an advanced PDE would greatly minimize the long term costs by allowing extra flexibility to be built into the present PDE's.

3) A hardware/software (see proposal I) ΔT evaluation would be cheaper than a simulation of the problem. ?

4) Experience must be gained in "advanced PDE" concepts before full blown units are deployed.

Proposal "I"

Concurrently with the development of the three deployable PDE units and the one prototype unit, develope (4) PTF units and (4) (ΔT) devices. The PTF units would be of the type presently under development at HRB. The (ΔT) devices would be simple devices that would only calculate inter-channel (ΔT's). This would give NRL an initial advanced PDE for evaluation purposes sometime in the first quarter of FY 72. The calculated inter-channel (ΔT's) would be put into the new ATCON format. This would allow the computer to run the data and selectively

process ba[ ] the ΔT information. This would be a relatively inexpensive method to develop the necessary techniques and operational methods to do the job[ ] has in mind (as yet not fully defined). The cost for this would be an additional 150K in FY 72. That is

> 100K for PTF's
>
> 25K for ΔT devices
>
> 25K for software/hardware study

Follow on costs would depend on the results of the prototype evaluation but could range from 300K to 800K amortized over FY 73 and FY 74.

Proposal II

Essentially the same except that everything would be moved back one year. An initial committment would be made in FY 72 of 10K and then the 150K of funding for the prototype would be in FY 73.

Proposal III

This was[ ] idea which I told him I felt was not too good. The proposal was to completely separate the PDE's under construction from the advanced PDE's. My feeling is that this causes a great deal of duplicated effort and doesn't allow the time for evaluation.

Conclusion

The result of the meeting was that[ ] would like to go with proposal I. He will program for 185K in FY 72 and 400K in FY 73 and FY 74. I feel that if this goes thru

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then a certain amount of system design is required before a valid evaluation period can take place. Goals must be defined and milestones established. The timeliness aspect must be carefully evaluated vs. cost. For example, these proposals only consider pseudo-real time applications. For [ ] the ΔT controller becomes a rather complex and costly device. (initial costs and up-dates as design evolves over the years)

GEORGE PRICE