These discussions have yielded a greater mutual understanding of the considerable potential inherent in modern technology for solving some of the urgent problems in law enforcement. Our people have identified existing needs which our advanced technology can satisfy; for example, in areas of command and control, data processing, gas chromatography, and mass spectroscopy. However, funds presently available to the LAPD for work in these areas are exceedingly limited.

4. While the present Laboratories Committee of the Federal Council for Science and Technology is concerned with Government laboratories as such, with the exception of Dr. Astin its members are not working laboratory directors. What advantages and disadvantages do you see for establishing a small council of Federal laboratory directors that would represent the views of both directly and contractor operated Federal laboratories at the Executive Office level?

I am personally in favor of the establishment of a council of Federal laboratory directors. Such a council would have the advantage of rapid identification of the major common problems facing these laboratories, as well as the prompt

evaluation of the practicality and consequences of proposed actions.

The principal problem with this council, as with almost every advisory committee, is in organizing the group with the requisite authority and reporting level such that it can be effective. Also, since these laboratories are rather diverse in character, it may be difficult to assemble a group which is large enough to represent a suitable cross section of laboratories, and yet not so large as to be unwieldy.

5. A sharp line frequently is drawn between those Government laboratories that are directly operated and those are are contractor operated. In terms of your experience, what are the principal characteristics of each mode of operation and the differences between them that are significant to utilization of Government laboratories.

In my view, the intrinsic difference between laboratories operated by the Government and those operated for the Government under contract, centers around motivation, flexibility in staffing, and the effects of Government regula-

tions on the technical development process.

Many of the university operated Government laboratories were started during World War II, in order to accomplish missions requiring the application of technology that did not exist within the Government. The close association of these laboratories with the academic community has contributed to their ability to attract and maintain outstanding staffs.

Contract operation of these laboratories has allowed a degree of freedom and quick reaction that has not been possible within Government laboratories functioning wholly under Federal regulation. It has been my observation that mission-oriented, contract-operated laboratories have generally been better able to accommodate to changes in mission assignment, especially with regard to staffing and redeployment.

The constraints placed by the Government on the operation of Civil Service laboratories have undoubtedly affected their ability to compete for highly skilled technical manpower. The lack of these constraints, and the close association with universities, have placed the non-profit laboratories in a better competitive

position. This has been covered rather well by the Bell Report.

6. What authority do you have to deal directly with other agencies that may wish to engage JPL's research and development services?

While we do carry out discussions of an information-exchange type with other agencies, we are not able to negotiate with them for tasks. The facilities at JPL are owned by the Federal government and administered under a contract between NASA and Caltech; thus, NASA must approve any use of these facilities for other agencies.

I appreciate the opportunity to further amplify my remarks to your Committee and I hope you will not hesitate to call on me at any time for further information.

Mr. Daddario. We are running a little late, but I would appreciate it if we might be able to hear as much of Mr. Hughes' testimony as we possibly can, and I regret keeping you here until this hour. I hope we might be able to hear you and not have to bring you back.

we might be able to hear you and not have to bring you back.
Mr. Hughes. I would be very pleased to have my statement in the record and simply refer to two or three points in rather cryptic fash-