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THE H. MO-WOOLDRIDGE CORPORATION ~~AM 10 - 25~~

LOS ANGELES 48, CALIFORNIA

INTEROFFICE CORRESPONDENCE

TO: Maj. Gen. D. A. Schlesinger cc: Brig. Gen. R. L. Fuchs DATE: July 22, 1966

Col. H. T. Morris

Col. G. J. Russell

Col. G. H. Tammes

L. C. Dunn

P. W. Moore

FROM: Steven Zamo

SUBJECT: Role of R-W in
Research and in
Experimental Work
on Contract 1190

Reference: Memo to Dr. Zamo from General Schlesinger, same subject
18 July 1966

1. Your memo referenced above appears to be an adequate statement of the current policy contemplated by WDD in conjunction with R-W's role in research and experimental work on Contract 1190, and removes previous misunderstandings, with the exception of the three items discussed below.
2. Your memorandum introduces the word "experimentation" and outlines the procedure which you would like to have followed in connection with R-W's obtaining approval to carry on research and experimentation under Contract 1190. It is not clear whether these words apply to both new and continuing studies in existing laboratories; as two examples, we might consider the work which has been carried on in our so-called Analog Computer Laboratory during the past year or two, and the work which will be done in the Data Reduction and Analysis Center. In each case we clearly are doing laboratory work in pursuit of our technical evaluations and systems engineering assignment, and it has certainly not been our practice to call out each specific study task ahead of time and to obtain prior approval to carry it out. To subject each new study in existing laboratories to the prior approval techniques would obviously constitute a major deterrent toward completing our analyses in a timely fashion and a major departure from what has been the practice.

In view of previous approvals which made possible such facilities, and the complete awareness by WDD of the precise way in which these studies are carried out in our laboratories, we are assuming that your memorandum in the use of the words "research and experimentation" is not intended to apply to these tasks. Accordingly, unless you should indicate by further elaboration of your memo that we have the wrong interpretation, we shall assume henceforth that once the Air Force has officially determined that the Program requires the establishment of a given laboratory operation and facility of a particular scope for a defined purpose, it will not be necessary for formal review to be made of the individual studies and investigations which would constitute the day-to-day operation of the laboratory.

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~~CLASSIFIED~~

DOWNGRADED AT 3 YEAR INTERVALS
RECLASSIFIED AFTER 12 YEARS

(a) Maj. Gen. D. A. Behringer
(b). Role of R-W in Research and in
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3. Paragraph 6 of your memorandum suggests a policy that any research or experimental work which will exceed a \$5,000 total expenditure or \$500 worth of special equipment, or three man-months of effort should receive prior proposals by R-W and prior approval before proceeding. At the same time, your memorandum indicates that it is not your intention to restrict R-W accomplishments under 1190 in the role of research and experimentation, and that R-W will be given the same consideration on such experimental work as other potential sources.

I submit that a realistic consideration of the limitations imposed by this suggested policy are such as to preclude for all practical purposes our carrying on such preliminary experimental investigations. Any experimental investigation undertaken by R-W has so strong a chance of exceeding either three man-months, or \$5,000 total expenditure, and/or requiring \$500 in special equipment, that to guard against being in violation of the contract we would actually have to issue instructions that no such investigation be started without us going through the prior justification and proposal route.

These statements are not to be construed as indicative of the fact that R-W feels that it requires a complete free hand to do whatever laboratory work it deems necessary, with whatever amount of charging of special equipment to the contract it believes to be required for a specific experimental task. Rather, it may point that the proposed limitations are not so stringently as to handicap our best efforts. I agree that some kind of prior approval mechanism is both necessary and desirable, and that we should work together to prepare a joint instruction setting forth a reasonable framework for Air Force review, R-W accomplishment and reporting of such research and experimentation.

In attempting to set a limit on the amount of such tasks, the preferable (and conventional) method used is to cover such tasks in general terms in the work statement, to estimate their total scope and cost for the contract period, and not require individual prior approval on specific expenditures within that estimate. If, however, this is not acceptable, R-W is willing to consider an alternative approach which would be limiting but not constrictive; i.e., a method of control as a substitute for prior approvals of individual tasks. Note that on purely non-laboratory study efforts, we could not operate if individual prior approvals were required before each task (and we have, therefore, never attempted such a procedure). The chief difference here is that laboratory work is considered and hence the issue of control here would appear to be the amount of special equipment which is purchased and charged directly to the contract, rather than the charging of manpower.

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in manpower alone, the privilege of properly charging to a contract, once a statement of work has been agreed upon to certainty of the most fundamental nature and is completely established both on this and other contracts as a necessary prerogative of the contractor's technical judgment in order to carry out the work to which he has committed himself. The director of a program such as this must have freedom of choice in the day-to-day direction of the efforts of his research team. If you agree with these remarks, then it seems to me that the practical technique for control of laboratory work is by prior approval of the special equipment.

Repeating the above recommendation for clarity, I would suggest that you allow R-W complete freedom to perform laboratory work on Contract 1190 without prior approval, as long as the individual task does not require new equipment involving more than \$10,000 in cost to be charged directly to the contract. If there is a concern that there may be too large a number of special tasks, as compared with an estimate made at the beginning of the contract period, then you could set a further limitation; namely, that without prior approval during the contract period there can be no more than a total of \$100,000 of equipment to be charged to the contract which does not have special additional prior approval before the expenditure.

4. Finally, I would propose that we make a clear distinction between the policy and procedure applying to (a) experimental work directed toward achieving a suitable weapon at the earliest possible time, versus (b) research, whether theoretical or experimental, directed toward advancing the state of the ballistic missile art. In case (a), Paragraph 3 would apply. In case (b), a completely detailed prior approval mechanism is acceptable because there is not the same danger of impeding progress toward operational capability. Therefore, I suggest a separate joint procedure on this latter subject, which would indeed call for individual task approval prior to our undertaking any investigation whether theoretical or experimental, whenever such work would exceed two man-months or require any special equipment whatsoever.

5. As mentioned in my earlier memo of April 16, we expect that WDD and AFAC will be judged by their usual policies in judging what facility items the contractors should be expected to own and what items are to be regarded as special for the particular project. I believe this is proper for R-W to furnish experimental general purpose laboratory equipment of the type and in quantities which will probably be of continuing use to the Company in its normal electronics business. Where the nature of the equipment is peculiar to the work under Contract 1190 as to type or as to quantity, it seems proper for the Air Force to furnish it, either as a direct charge to the contract or under the existing facilities contract. I believe this philosophy

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in consistent with Air Force policy.

6. Your early consideration of the specific policies outlined in Paragraphs 3 and 4 above is solicited since such policies are pertinent to the defining of the contract which we, WSM, and BMD are now attempting to complete at the earliest possible date.

~~Simon Ramo~~

SK:rm

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