

October 11, 1951

John C. Bugher

L. Joe Deal

DISCUSSIONS BETWEEN NICK SMITH AND DR. SMYTH

SYMBOL: BMBP:LJD

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On October 9, Nick Smith and I discussed with Dr. Smyth the implications of Gabriel. Nick outlined the scope of his present work, emphasizing that to date he does not have numbers, but that he has enough information to draw some general observations based on his review of the Greenhouse-Ranger data. His statements can be summarized as follows:

1. The probability is quite high that anyone living within the U.S. has breathed one or more radioactive particles from the A-bombs already exploded.
2. The numbers of bombs and conclusions drawn in Nick's previous study are incorrect because the assumptions of particle size distribution and of transport of material no longer hold.
3. The trend in thinking is to recognize a finite probability of hot spots resulting from uncontrolled conditions rather than general contamination that would reach catastrophic levels.

Dr. Smyth indicated that he is concerned with the problems associated with tactical use of atomic weapons. He has seen many references to this new utilization of atomic weapons and has seen no reference to the associated radiation protection problems. It was Dr. Smyth's and Nick's opinion that for the average situation there are no radiation hazards associated with the use of atomic weapons which might deter their widespread use as tactical weapons. However, unplanned results may well be the rule rather than the exception. Dr. Smyth indicated that treatment of the unplanned and individually unlikely cases would be not only in order, but desirable. In addition, he indicated that it would be useful to have some purely speculative studies (as long as they are properly labeled) which would include combinations of freak circumstances necessary to create catastrophic conditions.

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Dr. Smyth asked if the Gabriel study had considered the implications of genetic effects. Since this had not been considered he felt that it is in order to consider the genetic implications in relation to unplanned results. In fact, Dr. Smyth stated he thought this should be a function of the Division of Biology and Medicine as a logical follow-up on Jangle.

In general I believe that while we did not give Dr. Smyth any detailed information, we were able to assist him in his thinking, thereby enabling him to have a better feel for the general Gabriel problem.

Later Nick pointed out to me that the question of radiation protection may have been considered by the Armed Forces Operational Analysis Groups. It might be profitable for us to investigate this phase of the operational analysis picture through the Armed Forces before we undertake additional studies.

One could not help but feel that one of the problems Dr. Smyth had in mind was whether we have reached a point with our weapons and methods of warfare where we might have a 20th Century version of Rome versus Carthage.

cc: Dr. Warren  
Dr. Claus  
Mr. Brown

LJD:nsd

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