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Brig. Gen. D. L. Crowson, DMA

~~NO 1/1/50~~

## Planned Measurements

<u>Events</u>	<u>EMP</u>	<u>RF</u>		<u>X-rays</u>	<u>γ-rays</u>	<u>Neutrons</u>	<u>Direct Debris</u>	<u>Rad Chem Sampler</u>	<u>Optical</u>
		<u>Attenuation</u>							
MULE PACK	-	/ x		-	x	-	-	-	x
WAGON TRAIN	x	/ x		-	x	x	-	-	x
ROSE BUD	-	x		-	x	x	-	-	x
CORN CRIB	-	-		-	?	?	-	?	x
KEY STONE	x	x		x	x	x	-	x	x
SMOOTH BORE	x	x		x	x	x	x	x	x
TOP DRAWER	x	x		x	x	x	x	x	x
SLEIGH RIDE I	-	-		-	-	-	-	-	x
SLEIGH RIDE II	-	-		-	-	-	-	-	-
SLEIGH RIDE III	-	-		-	-	-	-	-	-
BALD EAGLE	-	-		-	-	-	-	-	x

We have no comments with reference to those items listed under the heading of work known to be in progress.

Additional information was requested on five topics (a-e) in Gen. Donnelly's letter to you. Items (c) and (e) are primarily the concern of the LASL and LRL. However, we do have some work going on related to item (c), fireball brightness. Radiation transport-hydrodynamic calculations are being developed which will be capable of giving better predictions in the 20-100 km altitude range. Effort is centered around inclusion of retardation effects and the proper use and incorporation into the code of the optical properties of air. Though results are expected in the next six months, this cannot be guaranteed because of the very nature of the work. Our comments on (a), (b), and (d) are as follows:

- (a) It has been determined that all of the requested warheads can be obtained and readied after GO; therefore, no procurement action by Sandia is contemplated until GO.
- (b) The mockups of the warheads of the SLIM JOHN development flight are available, and Sandia is currently participating with the DOD in these flights.
- (d) Sandia will record the AGC voltage on all RF systems it flies during BLUE ROCK.

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Sandia has undertaken a hardware study of the problems of replacing the MK 56 with the XW 38 on KEY STONE and will prepare all the necessary engineering drawings and perhaps an environmental prototype so that this option would be available at GO. No more development flights before GO are planned or required to achieve the six-month readiness.

I hope that this information meets your needs. Of course, our staff would be happy to provide any more detailed information that you may desire or to have additional discussions of the details with DOD representatives.

Original Signed By  
S. P. SCHWARTZ

PRESIDENT

CDB:5240:dm

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