MONSANTO RESI	EARCH CORPO	ALMD66024371244
From LOCATION : Development D DATE : February 14, SUBJECT : Trip Report REFERENCE : Albuque Februar	Department, Mour 1966 - Sandia Corpora rque, New Mexico y 1 and 2, 1966	Ad Laboratorycc: Dr. L. V. Jones Mr. L. B. Gnagey Mr. G. W. Leadingham Mr. C. D. King Mr. A. J. Rogers Mr. R. B. Jones Mr. G. R. Gartrell
TO : Mr. D. L. Sc. PURPOSE: Sandia	ott Program Discuss [:]	THIS BOCUMPTHE CONDIST OF _3 FAGES THIS IS COFY OF SERIES _A. MOUND LABORATORY MONSANTO CENTRAL FILE NO. 66 2-437
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SUMMARY:

The primary purpose of this trip was to discuss the rocket components, transducers, detonators and other new programs in the design stage.



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- Welding of bridge wires on headers along with a welding 1. order (93-1183) was discussed. When Mound receives the order Sandia wants a new cost and delivery estimate as they must tell LRL when they will be able to support the change to a hardened system. This order has a high priority at Sandia.
- 2. A hardened version of the XMC-2136 timer will be required. Forty-eight XMC-2136 timers with four different types of MDF. one of which will be aluminum sheathed, will be built and tested. Depending on the outcome of the tests about 300 more will be built to evaluate the new timer. This program also has a high priority at Sandia. The present XMC-2136 program was reviewed.
- Discussions on three pressure transducers, two for timers 3. and one for detonator testing, were held. Numbers of each could be 300 for timer testing and 2500 for detonator testing.
- Several new timers similar to the XMC-1984-B were discussed. 4. The volume should be less than one cubic inch. They will be used on the Mark 17, Halberd, Willet, Ostrich, and SRAM systems. Review of the present XMC-1984-B program along with discussions on assembly and modifications was held.
- Various designs of the XMC-1942 type detonator were reviewed 5. for use in parameter studies. About 500 total will be required.
- New rocket components similar to the TC-21 and TC-22 along 6. with the 15 programs that they will be used on were discussed. Sandia plans to compare a TC-21 to a 3924 by the 15th of February with Mound supplied TC-21 squibs. Upon satisfactory completion of the test Mound will build about 50 TC-21 squibs for a rocket shot in early March.
- 7. The AX-1 detonator programs were reviewed. There will be a wide variety of detonators built, varying among other things, PETN surface area and density; glues; bridge wire length, width, thickness, material and method of attachment. Sandia may ask Mound to do the testing using a square wave type tester and reduce the data using a computer.

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- 8. There is a chance that Sandia will submit an RFQ for Lobo devices in the spring depending on whether they can sell the Lobo system to LASL or LRL.
- 9. Several Advanced Development type X-unit transducers were discussed. One would reduce the amount of explosives where the other two are for investigating various ceramic and spacer materials. Total requirement could be as high as several hundred with only small numbers built and shipped at a time.
- 10. Discussed the requirements of the MD group at Sandia. They will need support in the fabrication of timers, in studies of materials and processes for timers and detonators. This would include the fabrication of about 68 XMC-2136 timers.
- 11. The design of the TC-246 and TC-234 detonators along with the requirements was discussed. About 800 will be built of which 500 to 600 will be tested. Completion of the program has to be done by July 15, 1966. The unit is scheduled for use on about 11 various field test programs.
- 12. Details of the design and fabrication of about 50 timers for initiation of the Teller Light Source were discussed.
- 13. The drawings for the XMC-1697 timer were reviewed and up-dated so that A Issue drawings can be released. Details on the fabrication of 40 Inert timers were discussed.
- 14. Attended a Non-Destructive Testing meeting in the evening where the speaker, Mr. R. Petrick, from G. E. in Florida, gave a short talk on Time Domain Reflectometry. A short film on neutron radiography was also viewed.

R.B. Jones

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