

Capt. Parsons

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PER DOC REVIEW JAN. 1973

VERIFIED UNCLASSIFIED

See Law ESS-16062 1/7/59 W.S.P.

PUBLICLY RELEASABLE
LAW, Classification Group

13 1/2 198

Mr. James Serduke

J.O. Hirschfelder

20mm DUALE GUN

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NOV 27 1943
UNCLASSIFIED
L. M. Redmon
FEB 5 1981

November 27, 1943

A-84-019
41-17

*471.86
26mm*

The proposed double gun to be used in testing simultaneity will be made up of two 20mm Hispano bores, cut to any desired size, and inserted into a housing to be built in our machine shop. I would appreciate it if you would make sure that we have on hand, or on order, for our machine shop the proper steel block from which this housing can be made. I believe that from the experimental standpoint, it would be most satisfactory to have the two guns parallel, and pointed in the same direction. We will probably fire the 131 grams (0.29 pounds) *projectile* I would suggest using Hercules bullseye as our first trial powder with a density of loading of between .25 and .30 to give a maximum pressure of approximately 50,000 psi. Under these conditions, you should get the following results:

Muzzle Velocity (ft/sec)	Total Volume of Chamber (in ³)	Travel Projectile (in.)
1500	11.9	8.5
2000	22.0	15.7
2500	36.3	25.9
3000	56.2	40.1

The normal volume of chamber of the 20mm guns is 2.22 cu.in. so that the volume in the housing available to the powder should be the total volume of chamber of gun in the above table minus 4.44 cu.in. and minus any additional volume which is made available in the guns by the removal of the normal breech.

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J.O. Hirschfelder

John R

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