

OC file 402

RECEIVED
JUL 13 1956
G. M. CALHOUN

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P. H. BURDETT

cc: F.B. Clay
C.S. Cummings
R.E. Evans
H.J. Hackman
D.E. Miller
P.H. Burdett

Ellen, New York
July 11, 1956

① G. M. CALHOUN
② P.H.B.

MODEL 40X - BARREL

Proposed Changes for Improved Hatching with Present Ammunition

Not quite
3M's
asked
to make
5-10 sums
with
to CC's
recommend
smaller diam.

At the Operations Committee Meeting yesterday there was further discussion regarding the above situation. Although I did not conclude that there was any definite decisions regarding what should be done, it is obvious that the present situation is not satisfactory to Remington and will no doubt continue to become an issue from time to time in the form of field reports. It also certainly appears that the situation should not be permitted to continue if it is going to be detrimental to the prestige anticipated by the Model 40X program.

I previously gave an informal high spot estimate to the extent of some \$3,000 which would be required to cover changes to the design and tooling, and also perhaps including minimum amount of pilot testing. However, I subsequently advised that such estimate did not include the cost of any long range investigation and development if such is required to determine a new "optimum" design for the bore dimensions.

Yesterday P.H. Burdett indicated that perhaps the records of the earlier work done by O'Connor might be adequate for supplying the desired information. On the other hand, it would be doubtful that the proposed new combination could be considered equal to or better than earlier gun and cartridge combination.

In J.J. O'Connor's letter of March 29 on above subject he stated in conclusion that "the solution to our present difficulty is not obvious". And he also indicated a number of points for basis of discussion. Several of these were related to ammunition characteristics. Item #4, which is of immediate concern, suggests that bore dimensions of the M/40X Rifle be immediately modified to approach the M/32 dimensions. In particular it was suggested that the bore diameter be decreased. There was no dimension indicated as to "how much" diameter should be decreased. And this is why I believe that further development work is involved.

They have
is not
vertically
from ISO
CC is
writing
you a letter.

If it should appear feasible I would be glad to arrange to have some barrels made to suggested new bore diameters and turn them

G.M. Calhoun

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over to the Bridgeport Ballistics Unit for evaluation. I believe that the cost of the experimental barrels has been in the range of some \$50 each. As yet there have been no arrangements made here to make any new design assignments on this job and if this is to be necessary we will have to be advised in order to proposed a new overall work program. However, such a change should not be necessary in order to obtain the test barrels for checking as suggested above.

SMA:T

S. M. Alvis, Manager
Illion Research Division