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TO: S. M. CALHOUN
FROM: C. S. CUMMINGS
SUBJECT: 40-X BARREL DIMENSIONS

I have discussed with John O'Connor the specification of 40-X barrel dimensions relative to providing sample barrels for evaluation. The following bore dimensions are recommended:

Bore diameter - 0.2170" - 0.2175"
Groove diameter - 0.2220" - 0.2225"
Groove width - 0.088"
Groove depth - 0.0023", - 0.0028"

It will be noted that the decrease in bore diameter from the presently specified is accompanied by an increase in the groove diameter. This change keeps the cross sectional area constant. This change is intended to increase the bore pressure by the decrease in bore diameter rather than by a decrease in the bore area. The proposed dimensions are quite similar in all respects (including bore area) to the current Model 52, and should minimize brand-gun selectivity. If Ilion will make up a few barrels to these proposed dimensions, we shall be glad to shoot them for accuracy in comparison with the present 40-X and M/52 guns. This test would be a "go, no-go" proposition with no intent to enter into a long range program of establishing new optimum specifications.

CSC:jbm

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