

MONTHLY REPORT FEB 89

CONFIDENTIALNEW .22 AUTOLOADING RIFLE - cont'd.

redesigning the gun to except the new magazine design, which will add months to the development schedule. We strongly feel that our first alternative should be to have an injection molded part using a quality grade engineered plastic (staying away from the material that we are currently using in our M/541 magazine box). However, we will proceed with, and try to produce this part, using the MIM process.

NEW CONCEPT SHOTGUN - Powers

First generation prototype design is progressing and CAD/CAM work is underway at EDL. For the barrel design we are considering both the GFM and Pilger manufacturing processes, with the emphasis on Pilger.

Test results of the modified KFC prototype indicate our simulation has accurately predicted bolt velocities. This testing has also revealed problems with magazine tube deformation which will have to be addressed in the NCS prototype design. Earl has sketched a concept which may solve this problem.

Recoil force testing of the NCS/KFC, 11-87, 870, Browning B-80, Browning A-500 and the H & K Super 90, fired by various shooters, is now complete. Shoulder forces (as measured with our recoil force transducer) indicate the NCS/KFC is lowest, with the 11-87 almost identical. Earl weighed the guns and we found that the NCS/KFC was significantly heavier than the others. Since weight affects felt recoil we will conduct another test, this one featuring weight equalization of the guns, sometime in March.

NEW BOLT ACTION RIFLE - Bauman/Murphy

Little has been done on the NBAR in the previous month. Tom Bauman has been working exclusively on the SP-10 Mag. and my time has been spent with the Parker.

The schedule that we developed follows and is based on a number of assumptions. Among them:

- o Tom Bauman's involvement with the SP-10 Mag. will be "limited" in 1989.
- o My involvement with the Parker and the SBT will not cause any conflicts.
- o The Model Shop and N/C group can supply timely turnaround of prototypes.