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# MARCH PROGRESS REPORT RESEARCH & DEVELOPMENT FIREARMS/AMMUNITION

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### FIREARMS HIGHLIGHTS

THE PEPLESS O/U PRELIMINARY TRIAL AND PILOT TEST COMMENCED 3/22/93. A BURST TOP BARREL WAS CAUSED BY A FAULTY RIB WELD. SCREENING OF PREVIOUSLY PRODUCED PRODUCT IS UNDERWAY TO PRECLIDE RECURRENCE.

A M/700 DETACHABLE MAGAZINE BOX (DBM) DESIGN ACCEPTANCE TEST IS PLANNED FOR LATE APRIL. CRITICAL PATH ACTIVITIES FOR THE PROGRAM ARE BEING IDENTIFIED AND EXPEDITED.

NEW CANTILEVER SCOPE MOUNTS FOR 12GA AND 20GA PUMPS AND AUTOS HAVE BEEN DESIGNED AND DETAILED.

### AMMO HIGHLIGHTS

12G4 PREMIER COPPER SOLID PRODUCT IS IN PRODUCTION. A MOLDED NORYL DISC IS BEING USED IN PLACE OF HIGH DENSITY POLYETHYLENE TO IMPROVE ACCURACY.

DIFFICULTY IS BEING EXPERIENCED OBTAINING 1550ft/sec WHILE
MAINTAINING ACCEPTABLE ACCURACY IN THE 3-INCH 12GA PREMIER COPPER SOLID.
PROTOTYPICAL EXAMPLES OF 20GA PREMIER COPPER SOLID ARE BEING
TESTED WITH EXCELLENT RESULTS. SLUGS AND SABOTS ARE BEING PRODUCED ON
THE R&D SCREW MACHINE. TWIST RATE HAS BEEN ESTABLISHED AT 1-IN-24".

C110 COPPER BOATTAIL BULLET DESIGNS UTILIZING THE EXTENDED RANGE PROFILE AND DRIVING BAND CONCEPT HAVE ELIMINATED THE HIGH PRESSURE/LOW VELOCITY PROBLEMS EXPERIENCED WITH THE PREVIOUS DESIGN. ACCURACY WAS LESS THAN 1" @ 100yds AND MUSH TESTED FAVORABLY COMPARED TO THE BARNES X BULLET. FUTURE WORK WILL NEED TO FOCUS ON MANUFACTURABILITY.