

To: Ken Soucy  
From: David Findlay  
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Subject: April Monthly Report

M/870 - M/1187 12/20 Ga. Cantilever Scope Mount Redesign

Work was initiated on March 22 to redesign the cantilever scope mount to Marketing's new design requirements. To date, all initial design work is complete and drawings have been issued to the tool room for building two M/11-87 12 ga. prototypes. Tool room will blank out the cantilevers by the week of May 7 but, process engineering will have to finish machine the welding pads on the part using their CNC equipment and cutters.

Marketing was shown preliminary drawings and pictures of the the new design and they have expressed satisfaction with Research's primary approach.

M/870 - M/11-87 Synthetic Stock and Fore End

Research had completed with Process Engineering a Remington designed synthetic stock and fore end for the M/870 and M/11-87. All modeling was completed in February and preliminary drawings were also sent to the vendors for mold quotation. Finalized detailed drawings were also completed.

While the stock was designed to Marketing's specifications, when shown the initial wood prototype, they found it objectionable in several areas. Research is now preceding to redesign the stock to eliminate these objections. The first step in this procedure is to have a stock model electronically digitized in order to computer model the component. A vendor (American Systems) has been given a stock and signed purchase order to begin this work. This work will be completed by the end of May. Computer modeling and sample preparation will then add an additional two months with transmittal expected at the end of July.

M/870 Synthetic Trigger Guard

Preliminary modeling work has been started on this program. To date, a solid model and detail drawing of the current aluminum trigger plate has been completed (D-18094). This modeling and detailing work was a necessary first step as this model will now be copied over and modified to develop the synthetic design. Work will begin the week of May 7 on the first of two synthetic trigger plate designs.

M/522 VIPER

With the successful completion of all testing and the rifle's turn over to production, work on the M/522 has now been directed to cost cutting and product improvement items.

A 10 shot synthetic magazine box mold was received and 50 parts were molded out of LCP plastic. The Test Lab has received these boxes for testing along with 10 rifles. Initial impressions indicate that a metal insert for the lip area of the mold will still be required to prevent the rounds from "cutting" through the synthetic lips.

Additionally, Research and Process Engineering are looking at an assembly aid design that is glued in versus sonically welded. Research is also investigating .5 lb. to 1 lb. reduction in trigger pull through the use of a firing pin spring modification or sear profile change. Process Engineering and Research are also evaluating firing pin carriers made from a composite mix of Hytrel.

5R Rifling

On January 14, 18 30-06 cal. 5R M/700's and 20 .308 cal. 5R M/700's were turned over to the Test Lab for evaluation and testing. Testing will be comprised of accuracy and endurance testing but has been delayed due to other project priorities.

Canadian Ranger Rifle

Six M/700 Stainless Steel rifles are prepared for shipment to the Canadian Army for Environmental testing and evaluation of three different metal finishes; black oxide, powder coat, and black chrome. These are awaiting shipment pending paperwork from the Canadian Army.

NCS

To date only some preliminary discussions have taken place between Firearms Research, Ammunition Research, and Marketing on what the performance criteria and specifications for this new family line of shotguns should be. A meeting needs to be scheduled between the various interested parties to iron out objectives and scheduling.