To: From:

8-17 P. 28

Ken Soucy David Findlay 5/27/93

Date: Subject:

May Monthly Report

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

To date, all initial design and drawing work is complete. Marketing has been shown preliminary drawings and pictures of the the new design and they have expressed satisfaction with Research's primary approach.

Prototypes have been initiated to verify the welding of the cantilever to the barrel and are scheduled to be complete by June 28.

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

Computer modeling of the M/11-87 stock will begin as soon as the digitized data arrives from the company doing the stock scanning. This information is expected May 28. Stock modeling will be complete June 30. Sample preparation will then add an additional month with transmittal expected at the end of July.

The fore end designs for both the M/11-87 and M/870 are complete and are being prototyped in wood.

# M/870 Synthetic Trigger Guard

Preliminary modeling and design work for an all synthetic trigger guard is complete and detail drawings should be complete by June 4.

Material investigation is also ongoing. A prototype synthetic trigger guard tool is out at a vendor for alteration, and upon completion will be utilized to mold trigger guards out of all materials selected. Testing to determine the optimum material will then begin.

## m/7400 22-250 Cal.

Process engineering has been requested to make 15 rifles in .22-250 for test and evaluation. This rifle is intended for the Canadian market.

## SWS Detachable Magazine Box

An engineering evaluation of the feasibility and cost of adding a detachable magazine box to the SWS for a potential 2000 unit foreign sale is being investigated. A preliminary layout has been started and search for information on the M/14 magazine box has also been initiated.

#### 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 were prepared for shipment to the Canadian Army for environmental testing and evaluation of three different metal finishes; black oxide, powder coat, and black chrome. The Canadian Army has now indicated a funding delay of this program and as a consequence the rifles will now be tested by Remington as time and priorities permit.

#### 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.