Remington Arms Company, Inc. Firearms Research Second Quarter Progress Report - 1984 June 14, 1984

J. W. Bower

W. H. Coleman, II D. S. Findlay

J. A. Lawrence

R. S. Murphy

Remington Arms Company. Inc.

#### - 1 -

#### Highlights

	Page
New Product Development - Shotguns	
<ul> <li>Research evaluation of the Model 1100,</li> <li>12 gauge trial and pilot has been completed with satisfactory results.</li> </ul>	2
<ul> <li>Evaluation of the patterns produced by Remington designed choke tubes is in progress.</li> </ul>	2
<ul> <li>Specifications for the Model 1100 Restyle have been forwarded to Process Engineering for estimating.</li> </ul>	2
<ul> <li>Several concepts for a Model 1100 auto- matically compensating gas system are under consideration.</li> </ul>	. 2
<ul> <li>The development team for a new autoloading shotgun will be identified by July 1.</li> </ul>	3
New Product Development - Rifles	
<ul> <li>Research evaluation of the Model Seven - 308 caliber trial and pilot has been completed with satisfactory results.</li> </ul>	3
<ul> <li>The N/C Shop has begun generating tool paths for the Mountain Rifle stock former.</li> </ul>	3
<ul> <li>Prototypes and high-spot cost estimates are complete for a new bolt action rifle.</li> </ul>	3
<ul> <li>Prototypes of two new magazine boxes for the Model 7400 are being made.</li> </ul>	4

# New Product Development - Shotguns

(D. S. Findlay)

## Model 1100 Special Field

(T. P. Powers)

The Special Field is a lighter weight, faster pointing version of the Model 1100. Features include a 21" barrel, slimmed and shortened fore-end, English-style stock, medium-gloss finish, and cut checkering.

Research evaluation of the 12 gauge trial and pilot sample has been completed with satisfactory results. Production has been released to put product in the warehouse.

## Choke Tube Development

(T. P. Powers)

A choke tube system is being developed to offer shooters the convenience of a variable choke barrel to adapt to different shooting situations.

Evaluation of the patterns produced by Remington designed choke tubes is in progress. This phase of the evaluation should be complete by June 15. Strain gage measurements and endurance testing will follow pattern evaluation.

### Model 1100 - 12 Gauge Restyle

(T. J. Plunkett)

A package of cosmetic changes are contemplated for 1986. Changes include cut checkering, medium-gloss wood finish, a two-piece butt plate, and a screw-machine magazine cap.

A sample to the approved specifications has been completed. A partial parts list and specification description have been turned over to Process Engineering for estimating. Operations Committee approval should be requested in September.

# Model 1100 Functional Improvements

(J. L. Kast, K. C. Rowlands, T. P. Powers, T. G. Bauman)

The introduction of wider ranges of ammunition, plus the continuing improvement of competitive offerings, requires consideration of functional improvements to the Model 1100. Being considered are a compensating gas system to handle all loads of ammunition, improved action smoothness, a new carrier, and a stainless steel magazine tube. Timing of these changes is to coincide with the Restyle program.

Several concepts for an automatically compensating gas system are under consideration:

- tandem orifice
- friction brake

- moving seal
- ring spring
- dual piston
- action spring brake

Preliminary evaluation of these concepts will be complete by the end of July.

# New Generation Autoloading Shotgun

The Model 1100 is the most successful autoloading shotgun ever built. Since its introduction in 1963, over 3 million guns have been sold. However, the design is over twenty years old, and it is timely that Research begin to develop a replacement for this gun.

The objective and basic data package for this new autoloader are being developed. The objective, along with the product development team, will be identified by July 1.

New Product Development - Rifles

(R. S. Murphy)

Model Seven - .308 Caliber

(R. S. Murphy)

The Model Seven is a lightweight bolt action rifle designed around the venerable Model 700. Several calibers were introduced last year. The trigger guard assembly for the 308 and 7mm calibers has been redesigned for improved reliability.

Research evaluation of the trial and pilot sample has been completed with satisfactory results. Production has been released to put product in the warehouse.

#### Model 700 Mountain Rifle

(R. S. Murphy, K. L. Calkins)

Scheduled for a 1986 introduction, the Mountain Rifle will address the higher end of the bolt action rifle line and replace the Model 700 Classic. Operations Committee approval has been received, and the rifle is in the early stages of trial and pilot manufacturing.

The N/C Shop has begun generating tool paths on the new stock former. Firearms Research will monitor progress to ensure that Production's schedule is met.

#### New Bolt Action Rifle

(F. E. Martin, K. L. Calkins, R. H. Smith)

A new bolt action rifle is being developed as a potential

replacement for the Model 700, possibly in 1988. Meetings with Research and Marketing will be held to select a preferred design, after which, Research will begin prototypes for design acceptance testing.

A Research-Marketing meeting will be held later this month, following a review meeting with Research management on June 19. Three prototype rifles are complete, as are high-spot cost estimates for the various alternatives.

### Model 7400 Functional Improvements

(F. H. Smith)

Since its introduction in 1981, the Model 7400 has experienced greater than expected feeding and extraction problems. Research is working on a new magazine box and changes to the chamber area to correct those deficiencies. A 1986 product line change is contemplated.

Prototypes of two new magazine boxes are being made, and a contract with EDL, to investigate chamber finish and friction, is circulating.