

Firearms Project Summaries

Revised: 4/17/95

Project	Status/Summary	Schedule	Completion
M/700 Improvements	Ordered trigger pivot pins, safety pivot pins, safety detent springs and trigger plate bushings for 50 prototype assemblies. Design acceptance testing is rescheduled until the week beginning December 4, 1995 to allow for new prototypes to be built.	Revised	01/26/96
M700 IL	The drawing package has been transmitted to them. Two additional bolt action patents submitted for review. Remington Field Service Manual currently out for review.	On Schedule	1/11/96
NALRR	Focus Panels have been rescheduled for December 11, 12, and 13. Prototype stock is complete and is in route to Wilmington for marking approval. First prototype is in test with 2250 rounds fired to date. Recent alterations to the magazine box were successful, but slight modifications are required to direct the bullet nose properly. The next revision is on order and due 11/17/95. Received the new rear return springs. The trigger regains and the trigger pull is 4.5 - 5.0 lbs. Ten bolt buffers of 70 durometer neoprene are past due; due 11/22/95. Five rear sight assemblies are past due; due 11/17/95.	Revised	12/01/95
M/700 VS EV	Preparing prototype for the demonstration of the M/700 E.V. to marketing and outdoor writer's. Researching new safety switch with non-rotating arm. Started building and gathering parts to the M/700 E.V. in order to demonstrate internal components and assembly. Investigating superior firing pin insulator material.	12/04/95	TBD
M/870 H.D.	Ordered sample mercury switches, used to detect gun movement and activating power to the electronics. Detailing of REFAS-2 (Electro-mechanical Hammer Release) is 75% complete. Complete CAD-detailed REFAS-2 components are out for quotation. Waiting on parts to complete the Trigger Block prototype.	12/15/95	12/29/95
Biodegradable Target	A revision of the test plan is being reviewed. Cammerzell used heat in the dies to attempt to fix the problem of the clay sticking to the die. This helped some but not enough to be considered as a solution. Modification of the geometry of the target is the next option to be considered.	TBD	TBD



Project Name: M/700 Improvements

Revised: 11/16/95

Project Manager: Edward Ford
Technical Lead: David FindlayMarketing Manager: Jay Bunting
Plant Contact: Joe Mead

Abstract:

Status/Summary	Schedule	Completion
All parts necessary to build 50 prototype assemblies are on order with the exception of the trigger and sear safety cam. Design acceptance testing is on hold until the trigger and sear design is finalized.	Revised	01/26/96

Accomplishments Since Last Revision:

1. Ordered 50 right side plates, 50 left side plates, and 50 safety retaining clips from Kellicus & Coe Tool, Inc.
2. Ordered 50 trigger springs, 50 sear springs, 50 trigger housing spacers - front, 50 trigger housing spacers - rear, 50 M/700 safeties, 50 M/7LWT safeties, 50 M/700 bolt release blanks, and 50 M/7LWT bolt release blanks from Ilion.
3. Four prototype triggers per drawing D-EXP3210 are at Quackenbush for plating. Expected delivery 11/03/95.
4. Five sear safety cams per drawing D-EXP3212 are at Quackenbush for plating. Expected delivery 11/05/95.
5. Four safety retaining clips per drawing B-107415 are in dry cycle testing.

Areas of Concern:

1. Drop Test.

Current Activities:

Action Item	Status	Responsible	Date
1. Prototype parts for Design Acceptance testing	All parts necessary for 50 assemblies are on order with the exception of the trigger and sear safety cam.	E. Ford	12/01/95

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Design Acceptance Testing Complete	9/15/95	01/19/96
Transmittal	9/22/95	01/26/96

Project Name: In-line Blackpowder

Revised: 11-15-95

Project Manager: Nick Sachse
Technical Lead: Nick Sachse

Marketing Manager: John Ballo
Plant Contact: Jim Rabbia

Abstract:

Status/Summary	Schedule	Completion
The drawing package has been transmitted to Ilion. Two additional bolt action patents submitted for review. Remington Field Service Manual currently out for review.	On Schedule	1/11/96

Accomplishments Since Last Revision:

1. Completed two additional potentially patentable bolt action design drawing packages for submission to Don Huntley.

Areas of Concern:

1. A decision to proof test rifles in manufacturing could hinder production start up dates while an efficient and effective methodology to accomplish this is being developed.

Current Activities:

Action Item	Status	Responsible	Date
1. Field Service Manual 1st draft.	Done. In review now.	Sachse, Smithson	11-22
2. Remington Standards Specification Sheets	Done. In review now.	Sachse	11-22

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Owners manual and field service manual complete.	1-1-96	1-1-96
Destructive testing complete.	12-1-95	1-1-96
Loading chart complete.	12-1-95	1-1-96

Project Name: NALRR

Revised: 11/16/95

Project Manager: Edward Ford
Technical Lead: Michael KeeneyMarketing Manager: John Ballo
Plant Contact: John Aldrich

Abstract:

Status/Summary	Schedule	Completion
Focus Panels have been rescheduled for December 11, 12, and 13. Prototype stock is complete and is in route to Wilmington for marketing approval. First prototype is in test with 2250 rounds fired to date. Recent alterations to the magazine box were successful, but slight modifications are required to direct the bullet nose properly. The next revision is on order and due 11/17/95. Received the new scar return springs. The trigger regains and the trigger pull is 4.5 - 5.0 lbs. Ten bolt buffers of 70 durometer neoprene are past due; due 11/22/95. Five rear sight assemblies are past due; due 11/17/95.	Revised	12/01/95

Accomplishments Since Last Revision:

1. Stock modifications complete. The stock is in route to Wilmington for marketing approval.
2. Received new link left with integral disconnector. Assembled soft parts and appears to function properly. Parts were sent to heat treat; due 11/17/95.
3. Received new safety plunger springs.
4. Received scar return springs. Trigger regains! Trigger pull is 4.5 - 5.0 lbs.
5. Redesigned ejector to incorporate a steel stamping glued to the housing. Steel stampings are complete and are currently at heat treat; due 11/27/95.
6. Sent prototype parts to Ilion for black oxide and electroless nickel plating.
7. Received the Best-In-Class Analysis final report from BCAM International, Inc. The report was reviewed and sent back for format and content changes. A Final presentation is tentatively scheduled for the week beginning 11/27/95 in Elizabethtown.

Areas of Concern:

1. Magazine box.

Current Activities:

Action Item	Status	Responsible	Date
1. Drawing package	Blank drawings required based on process sequence	M. Keeney G. Barnes	12/01/95
2. Rear sight assembly	Five rear sight assemblies past due. Expected 11/17/95.	E. Ford	11/03/95
3. Trigger housing	Received five trigger housings 11/10/95. Complete.	E. Ford	11/03/95
4. Prototype stocks	Stock modifications complete. Stock is in route to Wilmington for marketing approval.	E. Ford M. Keeney	11/10/95

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Focus Panel	12/04/95	12/11/95
December Board Meeting	12/06/95	12/06/95

Project Name: M870 H.D.

Revised: 11-16-95

Project Manager: W. James
Technical Lead: D. FindlayMarketing Manager: J. Bunting
Plant Contact:

Abstract:

Status/Summary	Schedule	Completion
Ordered sample mercury switches, used to detect gun movement and activating power to the electronics. Detailing of REFAS-2 (Electro-mechanical Hammer Release) is 75% complete. Complete CAD-detailed REFAS-2 components are out for Quotation. Waiting on parts to complete the Trigger Block prototype.	12/15/95	12/29/95

Accomplishments Since Last Revision:

1. Key components of the Trigger Block design are out for rework.
2. Finalized solenoid mounting specification.
3. Researching a mercury switch or equivalent device to detect gun movement. This is part of the power management scheme and detection of the solenoid plunger location.
4. Researched new vendor for the correct coil bobbin, used in the REFAS-2 design.
5. REFAS-2 (secondary design) has been designed. Detailing is approx. 75% complete.
6. Complete REFAS-2 components are out for Quotation.
7. Investigate inductive sensing associated with the position of the solenoid plunger.
8. Specification of solenoid design acceptance by Oak Grigsby, Inc..

Areas of Concern:

1. The custom solenoid may not hold "safe" position during the one foot drop test.

Current Activities:

Action Item	Status	Responsible	Date
1. REFAS-2 Detailing	Complete detailing of REFAS-2 design	Vineet, Randy L.	11/22/95
2. Finalize Drawings	Some drawing alterations will be necessary.	D. Findlay	10/27/95
3. Test electronic boards	Complete	D. Wolterman	11/3/95
4. Review Solenoid	Review first prototype solenoid with WPI.	Team	11/20/95
5. Procurement of parts	Order part for REFAS-2 design	James	12/10/95

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Component Verification (electro-mech. device)	8/30/95	TBD
Verification model complete	12/16/95	12/16/95

Project Name: M700 VS SF EV

Revised: 11-16-95

Project Manager: W. James
Technical Lead: J. RonkainenMarketing Manager: J. Bunting/S. Dwyer
Plant Contact:

Abstract:

Status/Summary	Schedule	Completion
Preparing prototype for the demonstration of the M/700 E.V. to marketing and outdoor writer's. Researching new safety switch with non-rotating arm. Started building and gathering parts to the M/700 E.V. in order to demonstrate internal components and assembly. Investigating superior firing pin insulator material.	12/04/95	TBD

Accomplishments Since Last Revision:

1. Investigating superior firing pin insulator material.
2. Defining design changes for next prototype.
3. Order two new target/Varmint scopes for demonstration.
4. Assemble compliant firing pin with positive stop.
5. Investigate SPDT switch with non-rotating arm.
6. Make safety support spring for existing safety switch.

Areas of Concern:

1. Movement of the "button" in the primer which serves as the electronic contact/interface for the firing pin electrode causes significant changes in the primer resistance.

Current Activities:

Action Item	Status	Responsible	Date
1. Accuracy Testing	Preliminary testing Complete	Ronkainen/Dave	10/11/95
2. Modify Prototype	Research new firing pin insulating material	Ronkainen	11/23/95
3. Writers Conference	Review by Outdoor Writers	Team	12/4/95
4. Electronic Testing	Complete	Dave W.	10/20/95
5. Executive Review	Complete	Team	10/23/95
6. Update Schedule	Update schedule for next prototype	Team	12/10/95

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Executive Review	10/13/95	10/20/95
Review by Outdoor Writers/Focus Groups	12/4/95	TBD

Project Name: Biodegradable Targets

Revised: 11/15/95

Project Manager: Valerie Goldberg
Technical Lead: Old HickoryMarketing Manager: Art Wheaton
Plant Contact: None

Abstract:

Status/Summary	Schedule	Completion
A revision of the test plan is being reviewed. Cammerzell used heat in the dies to attempt to fix the problem of the clay sticking to the die. This helped some but not enough to be considered as a solution. Modification of the geometry of the target is the next option to be considered.	TBD	TBD

Accomplishments Since Last Revision:

1. Draft test plan being reviewed.
2. Looking at options for a dryer and mixer.
3. Kinematic analysis performed on cad system.
4. Results from FEA were submitted.

Areas of Concern:

1. Homogeneity of the target.
2. End product cost. Raw materials cost look good, but processing significantly different than current.
3. Controlling moisture content of targets is critical.

Current Activities:

Action Item	Status	Responsible	Date
1. Drying and measuring of the targets.	In progress.	Goldberg	ASAP
2. Obtain strength test materials	Samples need to be moved at Old Hickory lab.	Goldberg	TBD
3. FEA Mesh models	Underway	Sachse, Davidson	TBD
4. Test Plan	Draft test plan being reviewed.	Goldberg	ASAP

Schedule / Key Milestones:

Milestone	Original Date	Current Date
Design Complete	TBD	TBD
Design Acceptance Test	TBD	TBD

December 1, 1995

To: Dennis Thompson

From: R. J. Orf

STANDARDS

1. A total of 849 standards have been created to date. 591 of the 849 have been signed off by the first line. 56 of the 849 have been returned to us for some type of correction or alteration.
2. Approximately 31 standards are yet to be created. These are standards for jobs that have not been run since we started creating standards. Plans are to catch them up as the jobs become active.
3. We have been experiencing problems with the Maynard software as of late. It keeps crashing and causing us to reboot. This has slowed us down due to the fact that it changes the data base when this happens. Therefore we have to go in and make sure the data is correct before we continue. Maynard has been notified of this problem and is working to correct it.
4. The data base has been sent to Maynard for updating to the new rev level of their software. It is due back on 12-4-95 and will be loaded during that week into AMAPS.

700 FIRE CONTROL

1. All ordering of equipment and tooling has been put on hold.
2. "E" Town hopes to have some proto type fire controls to test around the Jan/Feb 96 time frame.

RECEIVER EMBLEMMENT

1. Equipment received 11-25-95
2. Transmittals for the initial models to be engraved are complete.
3. Process records have been edited and are ready for release when the process is ready to run.
4. Facilities layout and rearrangement are continuing.
5. Tooling for the 1187 receivers has been received.
6. A T&P run of 1187 receivers will start to be rolled on 12-1-95.
7. Tooling for the 7400 and 7600 will not be received until 12-6-95.
8. T&P for the 7400 and 7600 will start the week of 12-11-95.
9. The first guns with roll engraving are expected to hit the warehouse the week of 12-25-95.

Subject to Protective Order - Williams v. Remington



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700 FIRE CONTROL

1. All ordering of equipment and tooling has been put on hold.
2. "E" Town hopes to have film photo type film controls to test around the Jan/Feb 96 time frame.

RECEIVER EMBLEMMENT

1. Equipment received 11-25-95
2. Transmittals for the initial models to be engraved are complete.
3. Process records have been edited and are ready for release when the process is ready to run.
4. Facilities layouts and rearrangement are continuing.
5. Tooling for the 1287 receivers has been received.
6. A T&P run of 1287 receivers will start to be rolled on 12-1-95.
7. Tooling for the 7400 and 7600 will not be received until 12-6-95.
8. T&P for the 7400 and 7600 will start the week of 12-11-95.
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