

REMINGTON ARMS COMPANY, INC.
Product Team Meeting Minutes
September 4, 2003 Ilion Meeting (7:30 a.m.)

Future Meetings

Dec 2 Madison

Future Important Dates

Oct. 16-19, 2003	Writer's Seminar (Daniels, West Virginia)
Nov. 1-3, 2003	Sales Meeting (Greensboro, NC)
Feb 12-15, 2004	SHOT Show (Las Vegas, NV)

Business Review

Jay Bunting to provide overview of current business environment

ILION BASED SHOTGUN PRODUCTS

2002 New Shotgun Product

- Model 332
OBJECTIVE: Establish a legitimate presence in the O/U market
ACTION: Ilion to report on progress of velocity and quality improvement initiatives (Greater throughput, bring engraving in house, wood quality, etc) and production levels to date. Quality concerns that have recently surfaced:
 - Bluing salt bleedout around the monoblock/barrel interface and vent rib posts.
 - Rust coming out of edge of barrel at breech and between the barrels at the monoblock.
 - Loosening of forends when shot 25-50 rounds.
 - Side rib seam still inconsistent at braze.
 - Wood still too dark.
 - Failure to fire on top barrel.ACTION: Schoppman to provide Ilion with a proposal for target gun expansions. Discussion of 16/20 gauge 332 will take place after Ilion has reviewed the drawing package from R&D.

2004 New Shotgun Product

- Barrel Porting
OBJECTIVE: Invigorate the XBL business with something new that can be pitched as a special barrel program. Target date for announcement is November Sales Meeting. Catalog barrels to be ported: Target, Turkey and Deer. First RAMAC to develop is 4624 (10 years of overstock).
ACTION: Schoppman to provide volume by RAMAC.
Schoppman: Will decide on hole design and pattern, taking into account current designs and intellectual property, if any.

- Embellishment changes to shotgun receivers, NPP-2004-29
OBJECTIVE: Change or eliminate the "dated" embellishment on our current receivers to better respond to market requests.
ACTION: Schoppman to work with Skinner to plan implementation and not strand inventory of embellished product. New RAMACs may be required.
- Shotgun samples
OBJECTIVE: Meet deadlines for Writers and Sales samples
ACTION: Schoppman to review sample needs for new product IAW the quantities and timeline delivered to Ilion in July.

Ilion Quality – Shotguns

- Shotgun POI
OBJECTIVE: Conformance to SAAMI spec
ACTION: Need samples in Madison of new rib design for evaluation.
Samples due to Marketing end of August. Schoppman to review the design and give direction on approval. Priority of shotguns in which to incorporate these changes first:
 1. All 1100 Target, 1100 Classic Field and Synthetic
 2. 11-87 Premier and SP/SPS
 3. 870 Wingmaster and SPS
 4. 870 Express
 5. SP-10
- 11-87 Super Mag
OBJECTIVE: Determine necessary changes to make this product to the performance requirements as originally specified.
Action: Engineering to provide update on design recommendations and timeline for implementation. What testing needs to be done and when can we expect to make the transition in production?

ILION BASED GENERAL TOPICS

- Elimination of ISS on common fire control and Model 700, Model 7
ACTION: Schoppman/Trull to provide direction on replacing the ISS on all Ilion based product. Ilion to provide an update on testing impact and impact to parts lists.
Implementation requires testing for both the bolt-action ISS products and CFC ISS products. Bolt Action – This testing is to be run concurrently with efforts to reduce trigger pull weights on bolt action rifles. Testing will be conducted at E-Town with non-iss bolt plug and fluted firing pin to eliminate kinked firing pin spring.

CFC- Testing required on "shark-fin" style MIM trigger and lengthened old style screw machine safety

ACTION: Test plan and schedule for bolt action products due from Perniciaro on 9/30. T&E on CFC should be completed by 9/30. Perniciaro to issue schedule to Product Team Members for phase in on all Ilion products by 9/30.
- Customer/Consumer Issues
OBJECTIVE: Feedback to Manufacturing on key customer and consumer issues.
ACTION: Danny Evans to cover top product issues as reported by CSRs and Consumer Service, broken out separately by shotguns and by rifles.

Evans reviewed current plans for RARC's and Premier Service Centers. Also reviewed top repairs by Model as found in the Arm's Service Repair system and discussed reporting possibilities. Discussion also centered on bolt action rifle's and how after market or adjusted triggers were handled on incoming repairs. Current practices were to remove an aftermarket trigger from an incoming repair, test fire it with a slave trigger and return the firearm to the consumer without the trigger installed.

Action: All agreed that there is no good reason not to work on rifles with aftermarket triggers installed. This practice will be discontinued effective immediately. Perniciaro & or Cahan will address this issue with gallery personnel and Evans with Arms Service personnel.

Action: Trull/Evans to discuss adjusting trigger pull weights by factory or RARC's with respect to what poundage limits and what warnings need to be issued to the consumer. This to take place by 9/30.

Action: Evan's group to make first cut at issuing a summary report to the plant staff (Perniciaro from Ilion and Golemboski from Mayfield) and provide this first cut to them by 9/30.

Action: Evan's to investigate improving the sorting ability of the current reporting (i.e. by RAMAC, date shipped, etc.) report back to team by mid October.

- 3" Chambers in 20 ga deer barrels (NPP 2003-78)
OBJECTIVE: Uniformity across 20 gauge slug offerings.
ACTION: Alan Serven to submit a chamber drawing at the next SAAMI meeting.
Update on manufacturing plan and timeline.
- R3 Pad on Wood Stocks
OBJECTIVE: Product enhancement
Action: Review samples at this meeting.
Trull and Schoppman reviewed samples and confirmed that this is what they wanted with exception of the side ribs on the pads. Trull and Schoppman confirmed that a clean break with respect to S&K production was desired (i.e. pick a date to switch everything over).

Sims Priorities determined as:

1. Wood R3
2. 2100
3. Davis LE
4. Davis SG YTH

Action: Engineering to initiate contact to have Sims proceed with mold changes to begin production. Phase in date to be established by Ilion by 9/30.

- Styrofoam Insert in Gun Boxes
OBJECTIVE: Product enhancement
Action: Discuss how the current inserts can be improved to prevent contaminating firearms and leaving residue on stocks.
Schoppman/Trull tasked plant with reviewing current options with respect to packaging. Ilion will initiate, but implementation must be congruent with Ilion and Mayfield products. Primary concern is that current styrofoam beds are problematic due to the fact that the Styrofoam beads flake off and get trapped in the guns and that the residue from the beds rubs off on stocks. Considerations for new options should include:
- Cost

- Flaking
- Abrasion
- Product Protection
- Environmentally Friendly

Action: Perniciaro to get Dan Shumway involved with Purchasing and Golemboski and establish contacts and options for Marketing by 10/15.

ILION BASED RIFLE PRODUCTS

2004 New Rifle Concepts

- Model 700 CDL (Classic Deluxe)
NPP-2004-24 RAMACS(7007,7015,7011,7017,7047,7049,7051,7053)

OBJECTIVE: New Product

Action: Engineering to report on status of samples.

Samples due from Boyd's by 9/15.

Action: Ilion to build out samples by 9/20 for Writer's Seminar and photos.

- Model 700 BDL SYN DEJ#8 (New Decorating Process)

NPP-2003-88 RAMAC 27507

OBJECTIVE: New Product

Action: Ilion to advise where we stand on samples. Dave Sampson indicating that CAR has been submitted for tooling costs, but not yet approved.

P.O. is supposed to have been issued to Prime.

Action: Mroz to advise Trull of status by 9/5.

2005 Prospective Ilion New Rifle Programs

- Model 700 Synthetic stock redesign

NPP-2005-xx

OBJECTIVE: Product Enhancement

Action: R&D and Plant to advise of how they plan to proceed.

Majority of this discussion centered around Model 7 wood prototype and issues that need to be addressed in CAD model. Issues are:

1. Lumpiness in grip area
2. Recoil Pad Fit
3. Stock Pitch

Action: Mead driving changes that need to be made. Mead and Brewer to get Cook up for review with Mold MFG. Advise Trull of status by 9/16/03.

Ilion Engineering Topics – Rifles

- Alternative Metal Finish for Stainless Rifles

OBJECTIVE: Product Enhancement

Action: Engineering to provide status update

Action: Update to Trull on cost, properties of different options presented due by 9/30.

- Roller Burnish for Rifle Chambers

OBJECTIVE: Product Enhancement

Engineering reported at last meeting that this process is being held up due to chamber eccentricity issues. Bulk of problem appears to rest with current CF heading process at Ilion.

Action: Engineering to provide update.

Perniciaro indicated that they are in early phases of implementing, but have some key issues to resolve with respect to processing (i.e. heading after roller burnish scarring chambers)
Current plan shows implementation in Feb. of 2004.

Action: Review status at December PTM

- Other Engineering Topics
Measurement of drop dimensions for rifles. Currently calls for measurement off iron sights. Most rifles are clean barrel.

Action: Marketing/Engineering agree to measure drops from front edge of receiver.

Ilion Quality Issues – Rifles

- Bolt-Action Rifle "Lays Left" Issue

OBJECTIVE: Quality Issue

Action: Engineering & Quality to discuss progress thus far

Shoemaker reviewed teams findings. General emphasis from Product Team members was to insure that data and findings were to be transformed into corrective action plans. Perniciaro estimates that it will likely take one year to begin to really see the improvements in the process and product.

Action: Trull to continue to receive monthly updates and review at each PTM until issue resolved.

- Model 700/Seven Trigger Pull Weights
OBJECTIVE: Quality Issue
Sales and Marketing are receiving a great deal of feed back from customers and consumers that we are losing sales at a devastating level to the Savage Accutigger offerings.

Action: Engineering to advise of progress on getting trigger pull specs back to an acceptable level.

See notes on ISS removal.

- Model 40-X Triggers in Varmint/Police Rifles
OBJECTIVE: Product enhancement
Action: Group to discuss potential for adding 40-X trigger with external trigger pull weight adjustment capability to Varmint and Police rifles. 40-X triggers are externally adjustable down to 1.5lbs.
Discussion around using the Model 40-X externally adjustable trigger in M700 Varmint and Police rifles in competitive response to the Savage Acutigger. This will require joint test efforts by R&D and Ilion.

Action: Perniciaro to determine which 10 rifles need to be tested. McCormack to supply 10 40-X firecontrols to Perniciaro. Assembled rifles to be sent to Diaz. Diaz to look at design to incorporate a stop to prevent the external adjustment screw from being completely removed from the rifle.

Action: Testing will be completed in December at latest.

- Centerfire Rifle Chamber Specs – Ilion reamers as compared to SAAMI
OBJECTIVE: Quality Issue
Action: Perniciaro to update from last meeting on which chambers could/should be brought back to within SAAMI
Action: Perniciaro/Diaz to work on proposing to SAAMI that free bore be added to issue cartridge drawings.

R&D TOPICS

E-Town Development Topics

- NAS Report
OBJECTIVE: Complete a written review of the NAS development program and what was attempted and what was learned, particularly as it relates to the Model 2100.
ACTION: Diaz to report status
- Model 700/Seven Snaked Firing Pin Spring
OBJECTIVE: Quality Improvement
Action: Diaz to review status.
See ISS removal data.
Once R&D has parts, 3-4 weeks worth of testing required.

Action: Trull to continue to follow monthly status.
- Model 597 Performance Improvement
OBJECTIVE: Performance Improvement of 597
Action: Diaz to update on dimensional study of the 10 sample guns and report.
Action: Diaz to advise of redesign efforts.
Dimensional study underway now. Should be complete sometime between 9/15 and 10/1.
Trull's position is that R&D should take a step change approach to overcoming this issue.
The mag box issue needs to be resolved in order to keep this product as an ongoing product in the line.

Action: Trull to meet with Diaz on 9/18 to discuss prioritization of projects for 2004.
- Model 7600 223 Rem
OBJECTIVE: New Product
Action: Diaz to update on Murphy's design efforts and timing. Still on track for mid year 2004?
Still on track for mid-year '04 intro. EET shot 300 rds with 3 malfunctions. Ilion is making 25 guns for DAT

Action: Mroz to advise when 25 guns will be complete by end of week.
- Remington Mohawk 22 Program
OBJECTIVE: New Product
Action: Diaz to advise of Murphy's efforts to review M514 & M510 and discuss design potential.
Murphy looking at 514/510/Crickett/Chipmunk concept. Planning for 2005 intro.

Action: Trull meeting with Diaz on 9/18 to prioritize 2004 plans.

MAYFIELD BASED RIFLE PRODUCTS

2004 New Rifle Product – Mayfield

- Model 504
OBJECTIVE: New Product
Action: Golemboski to advise of status of T&P build.
Action: Trull to review plan for writer's guns and rep samples.
Golemboski reported that while there are some glitches here and there, things are essentially on schedule.

Action: 10 gun pre-build due to E-Town on 9/10. Will continue building while E-Town is evaluating 10 guns. Objective to have T&P build complete by 9/30. 60 guns for Writer's Seminar will be built and screened alongside T&P build.
- Model 710 Magnum
OBJECTIVE: New Product
Action: Review status of T&P and build plan.
DAT proceeding well

Action: Will have T&P guns delivered 2 weeks after 504.

Mayfield Production Topics

- Model 597 17 HMR
OBJECTIVE: Production Update
Orders are holding fairly well, but we should continue to maintain a cautious view, especially with respect to wood issues
Action: Review production and order position
No changes since last meeting. Will continue to monitor.
- Model 597/710 Barrel Hangtag
OBJECTIVE: Product Enhancement
Action: Mayfield to advise of status
597 in place now. 710 within one month.
- Mayfield Lock
OBJECTIVE: Product Enhancement
Golemboski has identified source for lock and Marketing has reviewed and agreed that it is acceptable.
Action: Golemboski to provide status update.
On track to implement by end of 2003.