

REMINGTON ARMS COMPANY, INC.

INTER-DEPARTMENTAL CORRESPONDENCE



1076

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 March 26, 1979

TO: H. D. ALBAUGH
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FROM: J. H. CHAMBERS *JHC.*

SUBJECT: SHORT BARREL BOLT ACTION RIFLE STUDY -
 FINAL REPORT

Attached is a final report from the Gediman Research Group based on five group sessions conducted during the end of January, 1979 to evaluate six short barrel bolt action prototypes, each containing various different features.

In appearance, the prototypes, by their very nature (short barrel bolt action rifles) resemble the Mohawk 600 to some degree. However, the stocks as well as other features have been changed to enhance the gun's quality image.

Two sessions were conducted January 30 in Houston, one on January 31 in Atlanta, and two in Detroit on February 1. Three sessions were comprised of half bolt action and half lever action hunters. The other two sessions (one in Houston and one in Detroit) were comprised of men who hunted with a lever action within the past year.

Findings

The final report basically expands upon the findings discussed in the preliminary analysis with virtually no difference in conclusions.

The concept as stated on page 14 of the final report, i.e., a light weight, fast handling bolt action rifle that can fire high velocity cartridges was well received by most members of the groups (80% like it a lot/somewhat). Furthermore, positive reactions to the prototypes were even stronger (96% liked it a lot/somewhat).

H. D. Albaugh
W. H. Forson, Jr.

-2-

March 26, 1979

In retrospect, the positive reaction to a short barrel bolt action rifle as described in the concept statement is not surprising since we were at full capacity with the Mohawk 600 in 1977 (17.5M units) without attempting to market this product (not cataloged, no advertising). There appears to be a latent need for this type of rifle which effective marketing and advertising could fully develop. Nothing quite like it currently exists on the market.

Bolt action users had a much stronger positive reaction to the prototypes than lever action users (63% of bolt action respondents liked it a lot vs. 23% of lever action respondents).

This suggests that while the prototypes contain the lightweight and fast handling characteristics of a lever action rifle, they are still primarily viewed as bolt action guns. Whatever version we eventually adopt, it will compete more with bolt action rifles than lever actions. Therefore, consideration should be given to minimizing any cannibalization this new bolt action rifle might have on our current bolt action models.

The median expected list price for the new gun (after respondents viewed prototypes) was \$180. However, this appears to be somewhat unrealistic since the Mohawk 600, if it was currently sold, would list for about \$180 and our general intention with this new gun is to improve upon the Mohawk 600's appearance.

The data indicates that the prototypes viewed could possibly justify a \$200-\$210 list price. Anything higher would greatly curtail this gun's broad appeal. At this price level, the new gun would be positioned between the Model 700 ADL and the Model 788. We certainly do not want to add features to the gun which would make it appeal to the current M/700 ADL buyer. If the new gun were to cannibalize any of our models, we would probably prefer it taking sales from the M/788.

Furthermore, at the \$200-\$210 price level, this new short barrel rifle would have little appeal to lever action buyers.

The main reason for liking the prototypes is the fact that they are lightweight bolt action rifles. (See "reasons for reactions to models" in the appendix.) The uniqueness of this concept appears to have a broad based market appeal and advertising should stress the lightness/fast handling of the gun with the versatility of firing high velocity cartridges.

H. D. Albaugh
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-3-

March 26, 1979

However, advertising should avoid the use of the word "carbine" in attempting to describe this new gun. While the word "carbine" does imply a short barrel gun to consumers, it also suggests reduced accuracy and range partially due to its long association with lever action.

The summary in the report as well as pages 19-29 and Appendix Tables 7-17, indicate which features on each prototype respondents liked best, so that a composite/ideal version could be pieced together.

Should you have any questions, please contact me.

JHC:hm
Attach.

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MARKET EVALUATION, POSITIONING,
AND FEATURIZATION
OF A
NEW BOLT ACTION CARBINE STYLE
CENTER FIRE RIFLE

For: Remington Arms Company, Inc.
March, 1979

MANAGEMENT SUMMARY

This section summarizes the key results of the consumer research on Remington Arms' proposed new bolt action carbine style center fire rifle....

The findings quite clearly indicate that the new idea is a distinctive and promising new product prospect, with good appeal to center fire rifle users across the board and especially strong appeal to the bolt action segment. The following two tables show the level of consumer interest, first at the concept and then at the product stage.

<u>Concept Reaction*</u>	<u>Total Sample</u>
	(50)
Like it a lot	30% } 80%
Like it somewhat	50 }
Indifferent	20
Dislike it somewhat	-
Dislike it a lot	-

*The concept statement shown to respondents is reprinted on Page 14.

TABLE OF CONTENTS

MANAGEMENT SUMMARY 1

INTRODUCTION 5

GENERAL ATTITUDES AND PRACTICES 8

CONCEPT REACTIONS 14

PROTOTYPE REACTIONS 19

APPENDIX

<u>Product Reaction*</u>	<u>Total Sample</u>
	(50)
Like it a lot	42% } 96%
Like it somewhat	54 }
Indifferent	-
Dislike it somewhat	4
Dislike it a lot	-

*All prototypes, collectively.

Price expectations for the new gun are at about the \$180 level (median). Purchase interest (definitely or probably would buy) approaches two-thirds of the sample. Both anticipated price and definite purchase interest are stronger among the bolt action segment.

If the new entry can be kept at or near the anticipated price of \$180 -- or in any event, under \$200 -- there wouldn't appear to be too much risk of cannibalizing the comparatively higher quality, higher priced Model 700. Rather it is the Model 788 that might present consumers with a closer choice. But the research results strongly suggest that, on balance, whatever sales might come at the expense of the 788, these would be more than offset by "additional gun" purchases (i.e., as a "walking gun," a "starter" gun for a child, a gun for a woman, etc.) versus "instead of" type purchases...as well as by an appreciable amount of entirely new business coming from the lever action segment.

It is our opinion, based on this research, that the new product need not, and probably should not, be presented specifically as a "carbine," because of the connotations of that among hunters: While it is true a carbine is perceived as being a smaller and lighter weight rifle, it is also thought of as having shorter range capabilities and less accuracy. We feel this gun should be presented as being "the best of both worlds" -- that is, a smaller, lighter weight gun (as in many lever action offerings) that offers the better performance characteristics of a bolt action gun, (via higher velocity cartridges).

What the new offering should be called is properly a matter for advertising and other creative development. However, in keeping with the general idea of communicating "the best of both worlds," one possible direction (given here for illustrative purposes only) might be, say, "bolt action brush gun."

Because of the mixed reactions greeting various different combinations of functional and aesthetic features of the prototypes, we feel that a "composite" gun, combining different features of several of the guns, would be best.

This composite gun would have a rounded fore-end contour design similar to Model V, rather than a schnabel fore-end, and would accommodate studs, for which there is an overwhelming preference (vs. barrel bands). It would have the grip design of Model T; and because of an only slight consumer preference for a grip cap, probably should be offered without

that feature (and thus without whatever price increment the grip cap would entail).

The recoil pad of Model M is favored, and could be adopted with reasonable confidence, though Models V, S, and R would likely also be acceptable.

Checkering is overwhelmingly preferred, with some slight favor for Model Q which has the checkering all around the fore-end. It appears that checkering (unlike such features as grip cap, bolt jewelings, or front bead color) is important enough to consumers to support a price increment. Pressed checkering is preferable to no checkering, but would not support as high a price increment as cut checkering.

Walnut is the preferred wood with Model V being the highly favored color and (non-)gloss level. A straight, not dog-legged, bolt handle contour with a knurled knob (Model V) is significantly more popular, as is a non-blued, jeweled bolt body.

After much discussion, the safety type of Model S (2-position safety with a separate push button bolt release mechanism located on the side) seems to win on the basis that it has the advantages of all or any of the other safety types, without the disadvantages.

#

INTRODUCTION

This research was undertaken to provide an initial (qualitative) assessment of the market appeal for a new bolt action carbine style center fire rifle, as well as guidelines for its optimal positioning; that is, its "reason for being," in relation to consumers' hunting lifestyles and gun orientations, on the one hand, and to pertinent existing products, on the other.

The positioning issue both affects and is itself affected by the aesthetic and functional featurization elements that have been variously incorporated into six prototypes. And it is a major objective of this research to address and interrelate both sides of the "equation" -- that is:

- evaluate the market appeal and establish the best possible positioning for the new gun;
- determine what combination of test features best supports and reinforces that optimal positioning.

Research Method

The findings and interpretations in this report are derived from five consumer group discussions, in the course of which participants discussed the new gun idea from many different

perspectives. Discussion within the groups first explored participants' general orientations to hunting, and in particular with lever and bolt action center fire rifles. Respondents were then presented with, and discussed, the new gun concept. Subsequent discussion focused in on the six prototypes, with their different combinations of functional and aesthetic elements, in order to assess consumers' perceived benefits, specific likes, dislikes, and expectations regarding use, users, price, and purchase intent. Following discussion and "hands on" examination of the prototypes (and four as-marketed guns included for purposes of comparison -- Remington Models 700 and 788, and Winchester Models 94 and 70), respondents rated and ranked the test designs on all key issues according to their preferences.

Sample and Fieldwork

The total sample consisted of 50 participants in five groups, and was about equally divided between men whose center fire rifle hunting is only or mainly with bolt action (48%) versus only or mainly with lever action (52%)* and collectively representing a wide range of socio-economic characteristics. The sample representation for the three cities in the study is:

*Two "pure" groups of lever action users, and three mixed groups were conducted.

- 24 consumers in two groups in Houston, Texas
- 11 consumers in one group in Atlanta, Georgia
- 15 consumers in two groups in Detroit, Michigan

* * *

The usual cautions for small-scale, group session research should be noted here, especially when comparing sub-segments. In this connection, note also that, both here and in the tabulations, raw numbers have been converted to percentages and rating scores only for purposes of analytic and editorial convenience; that is, in order to indicate more easily the direction, not the projectability, of the results. Nevertheless, as it turns out in this case, the results on most issues are fairly clear-cut.

* * *

A more detailed demographic breakdown of the sample, as well as all the statistical tabular data drawn from respondents' ratings of the test models, will be found in the Appendix section of this report.

GENERAL ATTITUDES AND PRACTICES

Beyond the few who have built-in, unchangeable, perceived preferences for one type gun or the other, respondents in all three regions, regardless of being bolt action or lever action users, are pretty much in agreement as far as their general attitudes and orientations to lever and bolt action center fire rifles are concerned.

Lever action center fire rifles are perceived by consumers to be lighter weight, therefore easier to handle, with greater portability and maneuverability:

"I have a Winchester 94 (lever)
and it is lighter than my Murray
Hill bolt action by at least 2 lbs.
I find it easier to handle and use."

"In briars I'd use a lever for
portability."

They are considered walking and stalking guns, best suited for brush hunting and woods because they won't get tangled in the brush as easily. In addition, they are seen as having shorter range capabilities, the result of operating under lower pressure, producing a slower bullet; and as having less latitude for cartridge capacities:

"The biggest advantages of a lever are its lightness and maneuverability and it won't get tangled in the brush and briars."

The majority of the respondents feel that they can operate a lever action rifle faster, thereby being able to get the second shot off faster:

"I prefer a lever because it fires quicker and holds the aim better."

"I use a lever because it fires more rapidly without losing its target."

"A bolt action takes more time to get the second shot off."

"Bolts are notoriously slow."

There is a definite John Wayne/"Rifleman" type mystique about a lever action rifle which many attribute its popularity to:

"When you were a kid you'd always see John Wayne using a lever action rifle."

"Cowboy movies when you were young definitely stick with you."

Consumers find bolt action center fire rifles to be more accurate and to have longer range capabilities, due to the higher-velocity, higher energy cartridges they can handle, the greater range and accuracy of its cartridges. Because it is a heavier and more cumbersome gun than the lever action, it is predominantly considered best suited for wide, open country and greater (shooting, not walking) distances in contrast to the brush:

"I enjoyed my 30-30 lever action rifle but the range capacities made me change."

"You'll never find a really high caliber like a 7mm or a 388 Winchester in a lever action gun - only a bolt."

"If they could make a lever action as accurate as a bolt it would sell."

"Bolt action is stronger, more rigid because the breech and barrel is manufactured in one piece."

In a minority of the cases, opinion differs, usually on specific issues concerning one type action as compared to the other, most likely based on a respondent's particular built-in bias in favor of the type he uses. The following quotes illustrate some of these:

"My 243 lever will shoot just as far and just as accurate as a bolt."

"My lever is accurate. Accuracy really depends on who's operating it - whether it be a lever or bolt."

"I think a lever is just as reliable as a bolt and more so than an automatic."

"I don't think a bolt can shoot longer ranges with better accuracy."

"With a given caliber and barrel length, the range of a bolt and lever would be the same."

Respondents also mention that their gun choice sometimes depends on a particular personal preference which may be based on a physical impairment such as sight...

"I'm blind on the right side
and to me a bolt is very
clumsy on the left side -
a lever is better for me."

...or a special concern such as safety and misfiring...

"I have a Savage 99 I bought
in 1950-51 and I've shot 5
boxes of shells a year and
it's never misfired. You
can't do better than that."

...or a particular feel or style of hunting...

"I shoot a lever action for
a totally different reason.
I like the hammer and I can
tell right away it is off.
It's a personal preference
with me."

"A model 88 has a 2½ inch
spread which takes the gun
off the game every time you
crank it whereas a good hunter
who shoots with a bolt won't
take it off the game."

"A lever action lends itself
to hunting on a horse whereas
with a bolt it's harder to do."

"It depends which type you are
more familiar with."

"To me its all subjective -
personal preference. I just
like using a bolt action better."

Carbine/"Carbine-ness"

The term carbine is found to denote principally one idea - shortness in barrel length. Carbines are generally, but not always, thought of as being about 2 inches shorter than a regulation sized rifle, thereby making them lighter in weight. The consensus of opinion perceives carbines as mainly or strictly lever action rifles and, with their shortness of length, contributing to the lever action's advantages of lightweight, portable, and easier to handle and maneuver, making it an excellent gun for brush and woods hunting. However, as with most lever action rifles, it also has the disadvantages of shorter range capabilities and less accuracy. A majority of the sample feel that even more range and accuracy are sacrificed when compared to a regular lever action because of these lost 2 inches. Range expectations of a carbine produce a mixed reaction from 50 yards to over 100 yards. The following summarize the general attitudes toward carbines:

"Carbines are easier to use in brush, which is a very real issue here (Atlanta)."

"It's a great walking gun especially through briar brush."

"A carbine is a short gun designed to be carried on horseback."

"A carbine is a great short barrel brush gun. It won't get tangled as easily."

"The shorter barrel length affects its range and accuracy. A carbine is accurate up to a certain range."

"Accuracy is a function of range."

"Because of its shorter barrel length there is a loss of velocity because it's not holding in pressure. This lower velocity means less range and less accuracy."

Several men mention that, because of its smaller size and lightweight, a carbine makes a perfect "starter" gun for their sons and/or wife:

"I have 3 sons and I have to buy each of their first shotgun and rifle. I bought all carbines to start with. Psychologically it is easier for them."

"I bought my wife a carbine because it is lighter and easier for her to handle."

CONCEPT REACTIONS

The following concept was presented to the sample:

As you know, for many years hunters have had a choice among several different types of operating actions where rifles are concerned -- two of the most popular being lever action and bolt action. However, there are few, if any, guns on the market that can offer a combination of the advantages of both these types of guns -- that is, a smaller, lighter weight gun that offers the better performance characteristics of a bolt action gun.

Now, a leading gun manufacturer has developed a new concept in the center fire rifle category -- a bolt action gun scaled down to a smaller size, but one that can still accommodate the newer, high velocity cartridges. This new gun offers the "knockabout" convenience and portability that comes with smaller size and lighter weight -- qualities that have long been available in lever action -- but it offers them in a bolt action gun.

You get the "best of both worlds" in this new, high quality center fire rifle -- the convenience of smaller size and lighter weight (not just a "sawed-off" barrel, but carefully designed and proportioned overall), plus the opportunity to use the newer, high velocity cartridges as well as the other performance advantages of bolt action.

*

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Initial reactions to the concept, prior to seeing any prototypes, are very favorable: 80% of the sample state they like it a lot or somewhat -- based directly on the intended conceptual merits of bolt action performance in a smaller, lighter gun. The degree and quality of concept acceptance seems to be somewhat higher in Detroit and Atlanta, and among bolt action users. The remaining 20% of the sample are indifferent to the concept as opposed to overtly negative.

Respondents readily accept the idea because this new product offers them "the best of both worlds." The majority of men (including lever action users) would like a light weight gun but do not want to sacrifice the range and accuracy of a bolt. This finally offers them an alternative:

"I'd like to see this - light-weight and a bolt with high velocity. I don't care how light a gun is, it gets heavy carrying it all day."

"I love the idea. You never know in the beginning of the day what you'll need by the end. A lever is a disadvantage in this aspect."

"If my accuracy wouldn't decrease with the light weight it would be great. I only switched due to the range before."

"If you are in the market for a more maneuverable gun, this is it."

"Weight really matters to me."

"This gun would be ideal for the brush here in Michigan."

"To me a bolt action is safer than a lever for my son. This would be perfect."

Only a few respondents in the sample make a contrast between this new gun concept and Remington's previous Model 600, which they speak favorably of:

"This is a remarketing of a Remington 600. I've shot one and I'd like to have one."

"This is similar to the Remington 600 which was great. I'm looking for something like that."

"There's one on the market already - a Remington 600. Well actually it's discontinued now. It was recalled because of an accident with a 15 year old boy who violated nine basic gun handling rules."

Another advantage that hunters perceive in this gun is its ability to accommodate a scope, which a Model 94 cannot do without a side mount. This seems to be a very important issue with a good percentage of the sample:

"In this area (Atlanta) you need a scope to see through the brush and thicket, trying to get a piece of the deer. This is a definite advantage of this new gun."

"Just about anyone going in the woods today will use a scope."

"When you get old enough where you can't see the front sight or the range you are shooting, you will learn to love a scope. It becomes a necessity."

The small percentage who do not accept the concept initially raise doubts about the ability to make such a gun that would have the advantages of both lever and bolt action. Several men seem worried or doubt the ability of a shorter barrel length to be able to handle high velocity cartridges efficiently and accurately:

"How can you get as high a velocity out of a shorter barrel as with a long barrel?"

"I don't believe a high velocity will come out of this gun and be accurate."

"High velocity cartridges depend on barrel length for efficiency."

Other negative reactions are a result of strong personal preferences - either for a particular type gun that they use and don't want to change or for a particular type of hunting:

"I'm sold on my lever. I'm not a very good hunter but my gun has killed anything (deer) it has hit. I'd never change to a bolt."

"I don't like too lightweight a gun. I like something there to swing."

"Not for me. I'm strictly a long bolt action user and I hunt accordingly. I'm used to the inconvenience of weight."

"Good idea for someone who hunts long ranges. Not me - I hunt under 50 yards."

Some men seem concerned about the added recoil and muzzle blast:

"I think with lighter guns you feel the recoil more. I prefer heavier guns."

"You wouldn't be able to hear for 3 days."

"I don't like the muzzle blast of short barrel guns."

When respondents are asked which type action users would find this gun more appealing, about two-thirds of the sample agree that bolt action users would. The remainder either feel it would be more appealing to lever action users or to both equally.

In the discussions, price expectations vary, ranging from a low of \$160 to a high of \$300. This concept is perceived to be more expensive in Detroit, falling in the \$200 - \$225 range, whereas Atlanta and Houston are somewhat lower, around \$185.

PROTOTYPE REACTIONS

Respondents' first exposure to the six prototypes produces a mixture of spontaneous reactions. Three of the five groups find the models shorter than they expected. A large percentage recognize them right away to be Remington because of the bolt design and the checkering on two of the models. Many find them to be pretty much what they had expected. Others are surprised about the small stock and feel it would be more advantageous for smaller people (small men, women, children), while many state it would be perfect for themselves. Several respondents consider it not in line with the quality of the Remington 700, but rather closer to that of a lever or a lever carbine.

Yet, with all those initial pros and cons, consumers' rated reactions to the product -- that is, to the six prototypes collectively, before discussion of particular feature differences -- is even more favorable than at the concept level. Acceptance, in fact, is virtually unanimous with 96% liking it a lot or somewhat, and with top box approval ("like it a lot") appreciably higher now than at the concept level for the total sample, and nearly double for bolt action users (up from 33% to 63%).

Group discussions then centered on the six prototypes, with their different combinations of functional and aesthetic elements. Statistics for these issues -- compiled on the basis of respondents' ratings and rankings at the end of the group session -- can be found in the Appendix.

Studs Versus Barrel Bands and Fore-end Contour Design

These two issues are interrelated because of the fact that a schnabel design, due to its shape, can only accept barrel bands versus a regular fore-end contour design which can accomodate studs. This fact clearly affects the preference of the fore-end design. More than half of the sample in discussion find the schnabel design (Models Q and S) appealing both aesthetically and functionally. However, because of the overwhelming strong preference for studs (Models T and R) versus barrel bands (Models Q and S) and hunters' refusal to give up studs for the schnabel, they change their preference to the regular fore-end contour design (72%) with studs:

"I'm a little man and I have little hands. I like the feel of the schnabel but I sure wouldn't want barrel bands."

"If I couldn't have studs, I'd rather not have anything."

Model V fares extremely well, and because there is little or no difference in contour between T and V, we have to assume that the people who favor V don't want barrel bands or studs.

Grip Design and Grip Cap

There is a clear preference for Model T grip design. The most extreme swept back design (Model V) does almost as well on "best" and "second best" mentions; however, a high "liked least" score nets it out as a not very close second. Many respondents perceive Model V as being harder to grip:

"Model V is more swept back and this makes it harder to squeeze with the open handed method of shooting."

"V is too short for my big hands, especially for gripping and carrying."

There is a marginal preference overall for a grip cap (60% vs. 40%). Atlanta has a strong preference for it (91%) whereas Detroit prefers no grip cap (80%). Most respondents feel this feature is strictly aesthetic, with no real bearing on performance:

"I like a grip cap - it adds a touch of class."

"It's nice but not really worth paying for."

"I don't really like it. It's not important to me. It has no bearing on the gun or its performance."

Butt Pad

The recoil pad of Model M scores best, but with considerable bi-polarity (quite a few "liked least," mainly in Atlanta, but more "liked best," mainly in Houston):

"I like a recoil pad - you get more cushion and less recoil, kick."

"I like a recoil pad. I don't take fast shots at running deer."

"I wouldn't want a recoil pad or rubber pad it if would catch on my jacket."

The rubber butt pad on Model R, fairly popular in Houston, and the classic pad of Model V are tied for second, with the standard plastic plate of S, most popular in Atlanta, not far behind.

Checkering

Checkering is overwhelmingly preferred (84%) over no checkering. Not only do respondents consider it aesthetically more pleasing but they also consider it functionally more accommodating: it allows a better grip with no sticking, especially in wet weather:

"With checkering I can move my hand without sticking - it gives a better grip."

"Checkering is good in wet or hot weather - you can get a better grip. It looks nicer too."

"I've never seen a high quality center fire rifle without checkering."

Although cut checkering (or "hand checkering," as some consumers call it) is preferred over pressed checkering, most would rather have the latter than no checkering at all:

"Pressed checkering doesn't
have as sharp edges as cut,
but it's better than nothing."

The majority of respondents acknowledge that they are willing to pay extra for checkering, with responses falling between the \$15.00 - \$20.00 range, or 10% of the price of the gun. They do feel, however, that machine or pressed checkering should be cheaper than cut checkering.

Of the two prototypes with checkering, Models T and Q, there is a preference, though not an overwhelming one, for Model Q -- the one whose checkering runs underneath the fore-end:

"This is the first one I've seen
with checkering all the way
around - I like it."

Wood Color

Model V, which is walnut, is clearly the conclusive favorite. The majority of the sample perceive walnut as the only good wood for a gun, especially any high quality gun:

"If it's not black walnut, to a
real enthusiast, it's a low
quality gun."

Others feel it's not so much the goodness of walnut but the badness of birch (Models Q, T, M and R). However, the tone and "flavor" of some of the responses on this issue suggest that consumers would pay less attention to it in the "real world."

Wood Gloss

Model V, again, is overwhelmingly preferred, perhaps due in part to a "spillover" effect of its admired color. However, there is a strong case among consumers to support the preference for a non-gloss finish, as the following verbatims illustrate:

"A polyurethane finish gets scratched in the brush and it always needs to be polished."

"A high gloss looks nice but it's just not practical. It scratches too easily."

"A high gloss finish is made for target shooting. Non-gloss is made for hunting."

The one high gloss model in the test (R) is widely liked, especially in Houston and among lever action users, but just as widely disliked, specifically in Atlanta and among bolt action users. There are few in the middle.

Front Bead

This issue does not seem to be too important to the respondents; many are indifferent to the question of color preference for the bead. However, there are a few isolated verbatims showing some minority preference for a gold or brass bead and some for a ball instead of a bead:

"I like a gold or brass bead that can be shined up. It's easier to clean and see."

"My preference is for a ball versus a bead. To me its easier to see."

"Most people with a bolt action gun put a scope on it anyway, so it really doesn't matter."

Bolt Handle Contour and Styling

Model V, which is straight, not dog-legged, with a knurled knob is the clear favorite among all areas and both lever and bolt action users. Respondents prefer the large, completely rounded, knurled ball because of its feel:

"I like V. It is swept back just a little bit and it has a nice big round knob on it and it is also checkered - which gives you a little bit of a grip."

Model T, which is straight like V but has a flat bolt handle is highly disliked across the board:

"Terrible - you can't get a hold of it."

Bolt Body Blueing

This feature is almost unanimously rejected (96%), for the reason that it will not last:

"It doesn't matter. It won't stay blue."

"I prefer a polished bolt body because the blueing will rub off."

Bolt Body Jeweling

Jeweling is preferred by a three to one margin, but probably would not support much of a price increment, if any. Cost reactions are mixed, with some men stating it should be standard on the gun, but a few others perhaps willing to

pay between \$5.00 and \$10.00 for it:

"If it's a good manufacturer it should be standard with the gun."

"I think it looks nice but wouldn't pay more than \$10.00 for it. \$5.00 is more reasonable."

"I prefer jewelery but I wouldn't pay extra for it."

Type of Safety

The 2-position safety with a separate bolt release mechanism is clearly approved (in the S version, though, not the M). In effect, it offers the advantages of any or all of the others, without the disadvantages:

"I don't like the 3-position safety -- there's more to go wrong."

"I prefer a separate release on the other side of the bolt away from the safety location. This would never foul up."

"I like the bolt release completely separate from the safety -- less complications."

Between these two 2-position safetys with separate bolt release mechanisms, Model S with the button type bolt release is preferred much more strongly than M. The "rocking lever" treatment of M is actually the least preferred safety (of any and all types) in the entire test:

"It's a brush catcher. And it takes (too) little pressure to release it."

Between the two types of conventional 2-position safetys, opinion is divided, with just a slight edge for the type in which the bolt is locked down on safe. Each type has its supporters, though.

Model V (bolt locked down on safe):

"I have three teenage boys and I don't want them to have any choices."

Model Q (bolt can be opened on safe):

"I don't think most people find it that important for the bolt to lock down -- as long as the safety is still on and it won't fire. That's the main thing. With Q you are able to load and unload with the safety on."

In addition to the personal safety aspects of the above viewpoints, there is some preference for the lock-down treatment on grounds that it prevents accidental snagging and lifting of the bolt on a twig, unbeknownst to the hunter, thus possibly resulting in a missed opportunity.

There is some favor, as well, for the 3-position safety, but others feel it is too complicated -- just another thing to go wrong:

"I don't like the 3-position safety. There's more to go wrong. The simpler the better."

After a demonstration, however, several decided they like it:

"Maybe with a 3-position safety there is less of a possibility that the gun would go off when loading it."

"When I'm hunting with lots of people getting in and out of a car, I don't want it to go off. The 3-position safety would avoid this."

However, with all the different choices, there is a clear consumer preference in this research for a safety that has a separate bolt release mechanism that lets you "have it your way," whatever that way may be.

Location of Safety

The shroud location, as on the Winchester Model 70 fares poorly. The side locations on the test products are much preferred, especially Model V. A few respondents mention preference for the Remington Model 700 location.

Overall Preference

Respondents clearly prefer Model V by far when asked about overall preference; and this is supported by their strong preferences for Model V's fore-end contour design, bolt handle contour and styling, wood color, wood gloss, and location of safety. However, not too much importance should be attached to this particular finding, since the more detailed results on features, as discussed herein, suggest that some sort of "composite" model is called for, drawn from favored aspects of the various prototypes.

Calibers

There is a wide range of opinion on what calibers respondents feel would be most appropriate for this new gun. About 50% of the sample feel either a .243 or .308 caliber is best suitable, while almost a quarter of the sample agree that a 30-30, 6mm or a 270 would be best.

Price Expectations

Anticipated prices* for the versions of the gun that respondents themselves have "designed," via their reactions and preferences regarding the various features at test, range from a low of \$125 to a high of \$265. There are two modal levels -- one at \$175 and another, smaller one at \$200. The median expectation is about \$180, with bolt action users a bit higher than lever action users, and the Detroit area higher than the other areas.

Purchase Intent

Overall, about two-thirds of the total sample express positive purchase intention ("definitely" or "probably" would buy) at their anticipated prices, with little difference (except in the top box) between those with higher versus lower anticipated prices. Overall, the "probablys" outnumber the "definitelys" by about two to one; but there is considerably more top box interest among bolt action users. Purchase intent is

*Respondents were instructed to answer in terms of "suggested retail (list) price"; and, for purposes of comparison, were given the suggested retail (list) prices of the Remington Model 788 (\$175), Model 700 ADL (\$245) and Winchester Model 94 (\$140).

also higher in Atlanta (91%) and lowest in Houston (46%).
There is no total outright rejection ("definitely" would not
buy) and moderate rejection ("probably" would not buy) is
rare; most of the rest of the sample is in the "might or
might not" category.

#

A P P E N D I X



Table 1
Demographics of Sample

<u>Area</u>	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
Houston	48%	100%	-%	-%	58%	42%
Atlanta	22	-	100	-	27	73
Detroit	30	-	-	100	60	40
 <u>Action</u>						
Lever	52%	58%	27%	60%	100%	-%
Bolt	48	42	73	40	-	100
 <u>Guns Owned</u>						
	(49)	(23)	(11)	(15)	(25)	(24)
One	18%	13%	-%	40%	24%	13%
Two	2	4	-	-	4	-
Three	12	13	9	13	16	8
Four	6	9	-	7	4	8
Five	4	4	9	-	8	-
Six	6	4	-	13	4	8
Seven	6	13	-	-	8	-
More than seven	46	40	82	27	32	63
 <u>Marital Status</u>						
	(50)	(24)	(11)	(15)	(26)	(24)
Single	12%	8%	9%	20%	19%	4%
Married	82	88	91	67	73	92
Divorced/separated/widowed	6	4	-	13	8	4
 <u>Age of Respondent</u>						
	(47)	(24)	(10)	(13)	(25)	(22)
Under 30	30%	25%	40%	31%	32%	27%
31 - 40	33	41	20	31	32	37
41 - 50	19	21	10	23	20	18
Over 50	18	13	30	15	16	18

(Cont'd.)

Table 1

Demographics of Sample (Cont'd.)

<u>Education</u>	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
High school or less	14%	8%	18%	20%	12%	17%
Some college	40	38	55	33	46	33
College graduate or more	38	50	-	47	38	37
Technical/trade school	8	4	27	-	4	13
<u>Occupation</u>	(50)	(24)	(11)	(15)	(26)	(24)
Professional/managerial	46%	55%	36%	40%	23%	71%
Sales/clerical	10	4	9	20	15	4
Skilled worker	32	29	36	33	42	21
Unskilled worker	4	8	-	-	8	-
Retired/student	8	4	19	7	12	4
<u>Income</u>	(50)	(24)	(11)	(15)	(26)	(24)
Under \$15,000	14%	16%	9%	13%	16%	13%
\$15,000 - \$19,999	12	13	18	7	15	8
\$20,000 - \$24,999	14	8	9	27	19	8
\$25,000 - \$29,999	18	21	27	7	19	17
Over \$30,000	42	42	37	46	31	54
<u>Family Members Who Hunt or Shoot*</u>	(50)	(24)	(11)	(15)	(26)	(24)
Wife	14%	17%	18%	7%	15%	13%
Son(s)	30	33	36	20	38	21
Daughter(s)	6	4	18	-	4	8
Brother(s)	10	13	9	7	19	-
Father	8	8	9	7	15	-
None	48	46	27	67	35	63

*Multiple response

Table 2

Concept Acceptance

	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
Like it a lot	30% } 80%	25% } 71%	27% } 91%	40% } 87%	27% } 73%	33% } 87%
Like it somewhat	50	46	64	47	46	54
Indifferent	20	29	9	13	27	13
Dislike it somewhat	-	-	-	-	-	-
Dislike it a lot	-	-	-	-	-	-

Table 3

Model Acceptance

	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
Like it a lot	42% } 96%	38% } 92%	45% } 100%	47% } 100%	23% } 96%	63% } 96%
Like it somewhat	54	54	55	53	73	33
Indifferent	-	-	-	-	-	-
Dislike it somewhat	4	8	-	-	4	4
Dislike it a lot	-	-	-	-	-	-

Table 4

Specific Model Reactions*

	Total Sample (50)	Houston (24)	Atlanta (11)	Detroit (15)	Lever Action (26)	Bolt Action (24)
Lightweight with bolt action/best of both worlds	44%	38%	45%	53%	31%	58%
Smaller in size/ shorter (posi- tive)	26	25	27	27	23	29
Easy to handle/ to carry/to use/ faster/better handling and maneuverability	16	13	9	27	15	17
Offers high calibers in a carbine style gun	12	8	9	20	8	17
Good for brush country/small gun	12	21	9	-	15	8
Good for women/ children/small people	12	25	-	-	12	13
Nice appearance/ design/eye appeal	10	4	18	13	12	8
New/different	8	8	18	-	12	4
Compact/all around rifle	6	4	9	7	4	8
A good marketable product	4	-	9	7	4	4
Kicking/recoil power stronger	4	8	-	-	8	-
Looks too short/ too small	4	8	-	-	-	8
Other**	12	25	18	7	12	13
No reason/answer	6	-	18	7	-	-

*Multiple response

**Other includes: feels comfortable/good safety features/action seems simple and easy/good compromise buy/full accuracy for distance hunters/likes all Remington guns

Table 5

Appropriate Calibers for Model

<u>Calibers</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
.243	56%	71%	64%	27%	46%	67%
.308	46	42	73	33	42	50
30-30	24	25	18	27	31	17
6 mm	24	21	55	7	15	33
.270	22	25	27	13	23	21
30-06	20	8	45	20	27	13
22-250	10	13	9	7	8	13
30 cal.	8	4	9	13	4	13
.222	6	8	-	7	4	8
7 mm	4	8	-	-	4	4
35	4	-	9	7	8	-
.306	4	-	-	13	4	4
.300	4	-	-	13	8	-
Other*	20	25	9	20	19	21

*Other includes: 22 Hornet/.223/250/.22 mag/.375 Win./.25/.223 to
.30/Rem 700/44 mag/350 mag

Table 6

Overall Preference = Net Scores*

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	57	22	15	20	29	28
Q	7	7	-	-	-	7
S	4	6	3	-5	2	2
R	2	-4	-	6	2	-
M	-1	4	-2	-3	-2	1
T	-12	-8	-3	-1	-3	-9

*On this and on the next nine tables, net scores are derived from assigning two points for each "best" response; one point for each "second best" response and deducting two points for each "least" response.

Table 7

Fore-End Contour Design = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	37	5	17	15	16	21
T	32	9	9	14	14	18
R	9	4	3	2	5	4
M	4	2	1	1	4	-
Q	-	12	-9	-3	5	-5
S	-29	-5	-12	-12	-12	-17

Table 8

Sling Straps and Swivel Mounts
(Studs/Barrel Bands) = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
R	45	25	8	12	25	20
T	44	16	12	22	22	23
M	4	8	3	-7	-3	7
V	3	-4	2	5	2	1
S	-22	-4	-8	-10	-11	-11
Q	-22	-9	-6	-7	-9	-13

Table 9

Bolt Handle - Contour and Styling = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	71	32	22	17	33	38
Q	20	11	1	8	12	8
S	16	5	2	9	10	6
R	-	-1	-1	2	-3	3
M	-2	-2	-	-	2	-4
T	-52	-20	-12	-20	-27	-25

Table 10

Grip Design - Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
T	30	13	12	5	13	17
V	12	10	3	-1	12	-
Q	8	2	6	-	-2	10
S	3	3	-6	6	4	1
M	3	1	1	1	5	-2
R	1	-3	-1	5	1	-

Table 11

Butt Pad = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
M	18	31	-14	1	16	2
V	13	-4	8	9	10	3
S	10	-22	20	12	-	10
R	9	21	-4	-8	5	4
T	4	4	2	-2	-1	5
Q	-1	-5	-	4	-4	3

Table 12

Wood Color = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	47	20	8	19	31	16
S	6	5	6	-5	-1	7
R	5	7	-4	2	-1	6
T	3	-4	2	5	-2	5
M	-	-	-	-	4	-4
Q	-9	-5	-	-4	-4	-5

Table 13

Wood Gloss Level = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	36	7	13	16	20	16
S	14	5	7	2	5	9
M	3	5	2	-4	2	1
R	3	18	-16	1	10	-7
T	2	-6	3	5	-4	6
Q	-6	-5	1	-2	-5	-1

Table 14

Type of Safety = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
S	33	14	15	4	16	17
V	17	9	2	6	5	12
Q	11	1	-	10	-	11
R	6	12	-5	-1	6	-
Winchester 70	6	-	6	-	1	5
T	-1	1	-	-2	4	-5
M	-17	-12	-4	-1	-3	-14

Table 15

Location of Safety = Net Scores

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
V	34	16	7	11	14	20
R	15	10	1	4	1	14
S	10	10	8	-8	3	7
Q	16	9	-2	9	11	5
M	-7	-5	-	-4	1	-8
T	-2	-5	-	3	2	-4
Winchester 70	-7	-10	2	1	-6	-1

Table 16

Checkering*

<u>Model</u>	<u>Total Sample (50)</u>	<u>Houston (24)</u>	<u>Atlanta (11)</u>	<u>Detroit (15)</u>	<u>Lever Action (26)</u>	<u>Bolt Action (24)</u>
Q	56%	58%	73%	40%	62%	50%
T	42	38	27	60	38	46
No choice	2	4	-	-	-	4

*In the case of this characteristic, only two models had a checkering feature, therefore, the net scores were not meaningful. Percentages in this table refer to the number of people who felt that model was the better of the two.

Table 17
Feature Preferences

	Total Sample (50)	Houston (24)	Atlanta (11)	Detroit (15)	Lever Action (26)	Bolt Action (24)
Prefer grip cap	58%	67%	91%	20%	58%	58%
Prefer no grip cap	40	33	-	80	38	42
No answer	2	-	9	-	4	-
Prefer checkering	84%	87%	100%	67%	85%	83%
Prefer no checkering	16	13	-	33	15	17
Prefer regular fore-end contour	72%	58%	100%	73%	62%	83%
Prefer schnabel fore-end contour	28	42	-	27	38	17
Prefer blued bolt body	4%	4%	-%	7%	4%	4%
Prefer non-blued bolt body	96	96	100	93	96	96
Prefer jeweled bolt body	76%	75%	100%	60%	73%	79%
Prefer non-jeweled bolt body	24	25	-	40	27	21

Table 18

Price Expectations

	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
Median	\$180.00	\$175.00	\$180.00	\$200.00	\$180.00	\$187.50
Mode	\$175.00	\$175.00	\$175.00	\$200.00	\$175.00	\$175.00
Range	\$125.00 to \$265.00	\$125.00 to \$245.50	\$160.00 to \$265.00	\$140.00 to \$250.00	\$125.00 to \$245.00	\$150.00 to \$265.00

Table 19

Purchase Intent

	<u>Total Sample</u> (50)	<u>Houston</u> (24)	<u>Atlanta</u> (11)	<u>Detroit</u> (15)	<u>Lever Action</u> (26)	<u>Bolt Action</u> (24)
Definitely would buy	20%)	21%)	27%)	13%)	12%)	29%)
Probably would buy	44) } 64%	25) } 46%	64) } 91%	60) } 73%	50) } 62%	37) } 66%
Might or might not buy	22	33	-	20	26	17
Probably would not buy	14	21	9	7	14	17
Definitely would not buy	-	-	-	-	-	-

Table 20

Purchase Intent at Different Price Expectation Levels

	Total Sample (50)			Lever Action (26)			Bolt Action (24)		
	\$175 and Under	\$180 to \$200	Over \$200	\$175 and Under	\$180 to \$200	Over \$200	\$175 and Under	\$180 to \$200	Over \$200
	(22)	(19)	(9)	(13)	(10)	(3)	(9)	(9)	(6)
Definitely would buy	23% } 63%	26% } 63%	-% } 67%	8% } 54%	20% } 70%	-% } 67%	45% } 78%	33% } 56%	-% } 67%
Probably would buy	40	37	67	46	50	67	33	23	67
Might or might not buy	23	21	22	31	30	-	11	11	33
Probably would not buy	14	16	11	15	-	33	11	33	-
Definitely would not buy	-	-	-	-	-	-	-	-	-