

Model Aviation

Reader Survey

March 2004

Conducted for

Model Aviation

TABLE OF CONTENTS

Objectives	1
Methodology	2
Summary of Results.....	4
 Readership	
Number of years Model Aviation have been received	11
Number of last four issues read	12
Time spent reading	13
Pass-along readership	14
Degree of interest in types of articles	15
Level of objectivity offered by Model Aviation's product reviews/information.....	16
Saving of copies for future reference.....	17
Number of references to previous issues in the past 12 months.....	17
Degree of interest in columns appearing in Model Aviation	18
Favorite column.....	19
Degree of interest in departments and sections appearing in Model Aviation	20
Favorite department or section.....	21
Feelings about the amount of AMA coverage.....	22
Value of Model Aviation as a part of AMA membership	22
Actions taken in the past 12 months as a result of reading Model Aviation	23
Other aeromodeling publications read regularly	24
Most useful aeromodeling publication	25

Reasons publication is most useful	26
Comparison of Model Aviation to other aeromodeling publications in specific areas	28
Topics requiring more coverage in Model Aviation	29
Single most important concern regarding Model Aviation	30
Visits to the Model Aviation portion of the AMA web site	31
Types of information desired on the AMA web site	31
Preferred medium for receiving information about aeromodeling and the AMA	32
About Their Hobbies	
Number of years as an aeromodeling enthusiast	33
Involvement with specific types of model aircraft	34
Frequency of flying model aircraft	35
Number of model aircraft built or assembled in the past 12 months by type	36
Aeromodeling items planned for purchase in the next 12 months ..	37
Number of engines owned by size	38
Percentage of electric motors owned by type	40
Percentage of batteries owned by type	41
Amount spent on aeromodeling and related products in the past 12 months.....	42
Percentage of aeromodeling purchases made in the past 12 months by type of outlet.....	43
Interest in other model hobbies	44
Demographic Characteristics	
Gender.....	45
Age	46
Marital status	47

Number of other household members who participate in
model aviation 47

Current/past employment in aerospace/aeronautics 48

Occupation of primary wage earner 49

Highest level of education completed 50

Location of residence by state 51

Annual household income 52

Objectives

Model Aviation, official publication of the **Academy of Model Aeronautics (AMA)**, commissioned **Research USA, Inc.** to conduct a survey of its readers in order to find out more about them, their participation in aeromodeling, and their readership of ***Model Aviation***.

Some specific areas studied included the following:

- Number of years as a receiver of ***Model Aviation***
- Time spent reading
- Pass-along readership
- Degree of interest in columns/departments
- Actions taken in the past 12 months as a result of reading ***Model Aviation***
- Other aeromodeling publications read regularly
- Most useful aeromodeling publication
- Visitors to the ***Model Aviation*** portion of AMA's web site/
types of information desired
- Number of years as an aeromodeling enthusiast
- Aeromodeling products owned/planned for purchase
- Demographic characteristics

Methodology

The names used for this survey were selected on an nth name basis from **Model Aviation**'s circulation list for a total of 1,000 names.

On January 20, 2004, every name selected was mailed an “alert” postcard signed by Rob Kurek, **AMA**'s Director of Publications, which informed them of the survey and asked for their cooperation.

On January 23, 2004, every name was mailed a four-page questionnaire, a cover letter from **Model Aviation**, a one-dollar bill incentive, and a stamped return envelope.

A second mailing of a questionnaire, cover letter and stamped return envelope was sent to non-respondents on February 13, 2004.

By March 9, 2004, there were 704 completed questionnaires that were returned:

Questionnaires mailed		1,000
Returned:		
Undelivered	2	
Incomplete	3	
Too late for tabulation	<u>4</u>	<u>9</u>
Net effective mailing		991
Completed questionnaires returned		704
Percentage return		71.0%

The information in this report is based on a computer tabulation of the 704 completed returns.

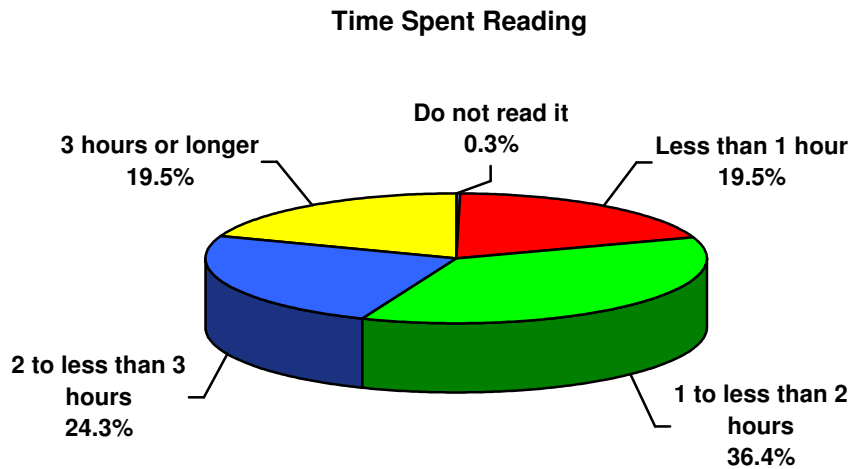
Results are projectable within a range of $\pm 3.8\%$ (with 95% confidence) for most of the tables that follow.

Summary of Results

Respondents to the survey have been receiving **Model Aviation** magazine for an average of 12.2 years.

Over nine out of ten respondents (92.6%) are regular readers of **Model Aviation** who have read three or more of the last four issues. All of the last four issues were read by 89.5%.

The average reading time for a typical issue of **Model Aviation** is 2 hours, 4 minutes.



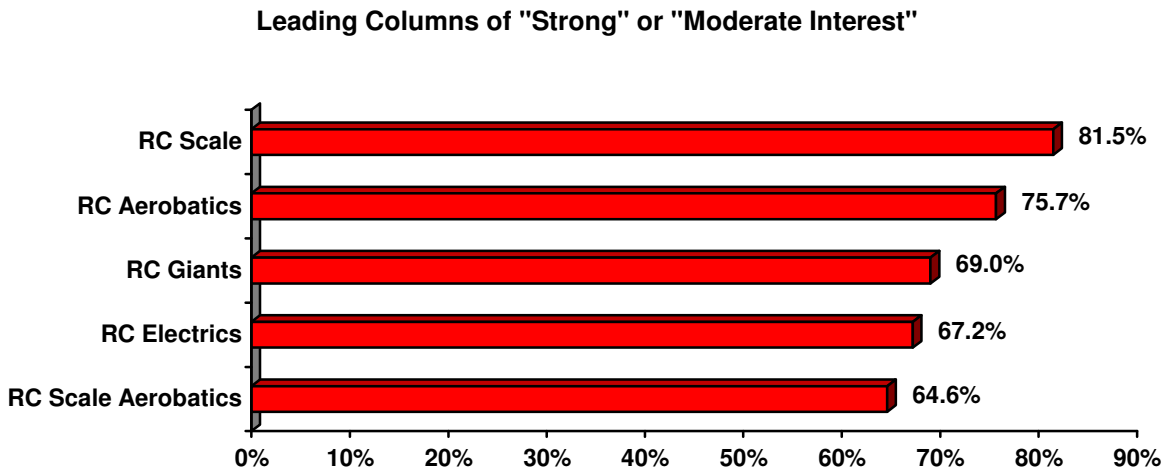
Model Aviation has an average of 1.6 readers per copy.

The types of articles appearing in **Model Aviation** that are of “strong interest” to the largest number of readers are how-to articles (62.4%), product reviews/information (59.0%), technical articles (53.0%), and construction articles (51.6%).

A large majority of those responding (87.8%) feel that the product reviews/information in **Model Aviation** are “very” or “somewhat objective.”

Nearly four-fifths (79.2%) save all or some of their issues of **Model Aviation** for future reference. These readers have referred to previous issues of **Model Aviation** an average of 5.3 times in the past 12 months.

The largest percentage of respondents have “strong” or “moderate interest” in the following columns regularly appearing in **Model Aviation**:



The **Model Aviation** columns that the largest number most enjoy reading are RC Scale (27.7%), RC Aerobatics (19.1%), RC Electrics (15.7%), and RC Giants (10.8%).

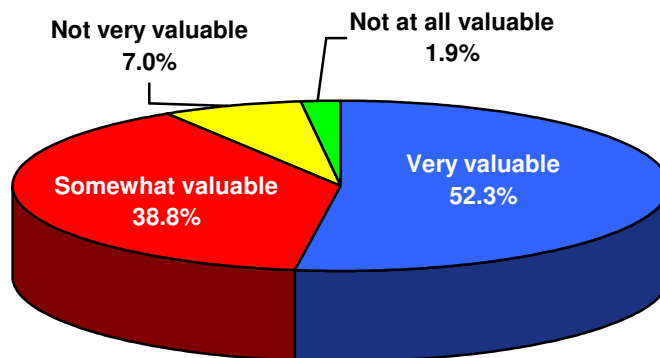
The departments and sections appearing in **Model Aviation** of “strong” or “moderate interest” to the largest number of readers are Engine Shop (82.7%), Flying for Fun (81.0%), Safety Comes First (75.4%), Electronics (71.4%), and Modeler’s Mall (70.9%).

Engine Shop (22.6%) and Flying for Fun (10.5%) were named most often as the department or section that readers most enjoy.

A large majority of readers (81.3%) feel **Model Aviation** has about the right amount of AMA coverage.

Over nine out of ten respondents (91.1%) consider **Model Aviation** to be a “very” or “somewhat valuable” part of their AMA membership package.

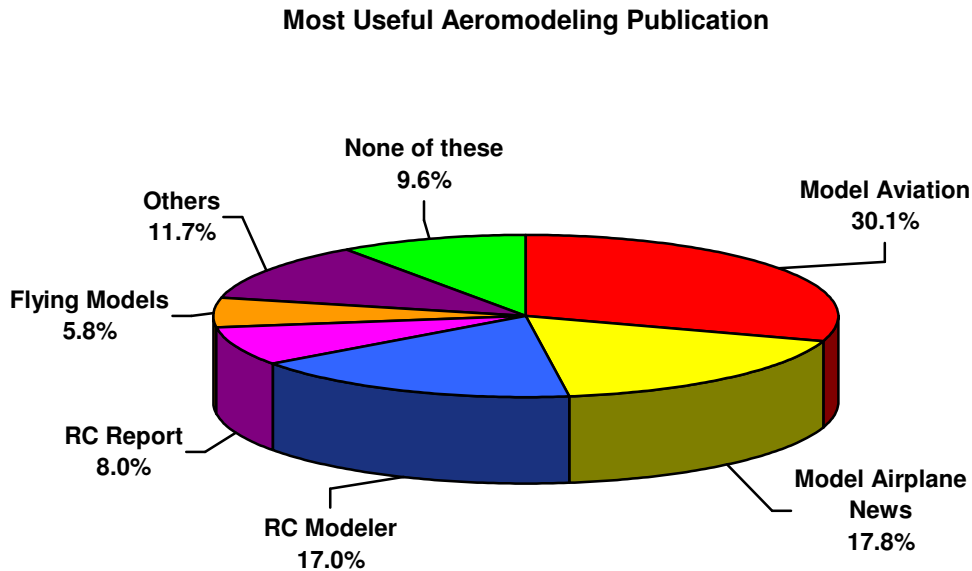
Value of *Model Aviation* as a Part of AMA Membership Package



Nearly as many readers (89.4%) have taken one or more actions in the past 12 months as a result of reading **Model Aviation**, with the largest number purchasing a product or service (54.8%), visiting an advertiser’s web site (53.6%), or mentioning an article to another aeromodeling enthusiast (51.6%).

No other aeromodeling publication is read regularly by a majority of respondents although many regularly read *Model Airplane News* (43.2%) and *RC Modeler* (38.4%).

The largest number named **Model Aviation** as the one publication they find most useful as an aeromodeling enthusiast.



Those who selected **Model Aviation** as being the most useful offered several reasons. Many chose the publication because it covers a wide variety of topics, offers AMA coverage, or has a good calendar of events.

Those who preferred other publications also gave a variety of reasons for their choice (see question #18).

When comparing **Model Aviation** to other aeromodeling publications, over one-third of respondents rated the publication “above average” for accuracy, quality of writing, thoroughness, and ease of reading.

Several respondents indicated that they would like to see more coverage on electrics, construction, engines, products, and RC topics in the publication.

Readers listed a wide variety of concerns regarding **Model Aviation**. Several would like **Model Aviation** to address the loss of flying sites and safety issues.

Nearly one-half of respondents (48.5%) have visited the **Model Aviation** portion of AMA's web site.

The types of information the majority would like to read about on the AMA web site are how-to articles (63.7%), product reviews/information (54.2%), technical articles (53.4%), and construction articles (52.4%).

Nine out of ten readers (90.5%) prefer to receive information about aeromodeling and AMA from **Model Aviation** and other print publications rather than online or via email.

About Their Hobbies

Respondents have been aeromodeling enthusiasts for an average of 26.8 years.

The types of aircraft a majority of readers are involved with are RC (radio control), Gas/Glow, and Almost Ready to Fly (ARF).

They fly model aircraft an average of 5.7 times per month with 85.1% flying one or more times a month.

Over nine out of ten respondents (91.4%) built or assembled one or more types of model aircraft in the past 12 months, with a majority building ARF (Almost Ready to Fly) (58.8%), and model aircraft from a kit (57.5%).

A similar number (90.4%) plan to purchase one or more aeromodeling products in the next 12 months, with the largest percentage planning to purchase

engines/motors (53.6%), ARF models (42.6%), balsa wood (42.1%), batteries for electric models (35.3%), and materials to scratch build (30.9%).

The following table shows the percentage who have one or more engines by type:

	<u>Have one or more</u>
.000-.048 ci	15.7%
.049-.09 ci	39.4
.10-.20 ci	34.7
.21- .39 ci	46.6
.40-.59 ci	81.3
.60-.75 ci	65.1
.76-.99 ci	37.3
1.0-2.0 ci	33.2
Over 2.0 ci	21.5
One or more	95.2%

An average of 56.7% of the electric motors owned are ferrite motors. Brushless (25.7%) and cobalt motors (15.2%) are also frequently owned.

The most popular type of battery used with the electric motors are Ni-CD batteries which make up 62.0% of the batteries owned. An average of 29.2% of batteries are NiMH and 8.4% are Li-Poly.

Respondents spent an average of \$1,039 on aeromodeling and related products in the past 12 months (the median was \$617). An average of 53.9% of these purchases were made at local hobby shops, 22.1% were through catalogs, 18.5% were made online, and 5.5% were made by some other method.

Over one-half of readers (55.1%) have an interest in model hobbies other than aeromodeling, with the largest number being interested in model boats.

Demographic Characteristics

Nearly all respondents (99.6%) to the survey were male with the average age of all those responding being 57.5 years.

Four out of five readers (79.8%) are currently married.

About one-fourth of respondents (24.3%) have at least one other household member who participates in the model aviation hobby.

One out of four readers (25.2%) currently work in aerospace/aeronautics or have done so in the past.

The largest percentage of respondents describe the occupation of the primary wage earner in their household as professional/technical (32.8%). Several (14.2%) also hold top or middle management positions.

Nearly four-fifths (79.0%) have attended at least some college and 35.9% have a 4-year college degree or better.

Readers were from all parts of the United States with the largest number residing in California, Florida, Ohio, and Pennsylvania.

The average annual household income of ***Model Aviation*** readers is \$80,870 (the median is \$67,630).

READERSHIP

1. **Model Aviation** is published monthly by the Academy of Model Aeronautics (AMA), and a subscription is included in membership dues. How long have you been receiving **Model Aviation** magazine?

Less than 1 year	8.3%
1 – 5 years	29.5
6 – 10 years	16.6
11 – 15 years	15.8
16 – 20 years	10.6
21 years or longer	19.1
Do not receive it	<u>.1</u>
	100.0%
Average	12.2 years

Base: 697

2. How many of the last four issues of **Model Aviation** have you read or looked into?

4 of 4	89.5%
3 of 4	3.1
2 of 4	3.1
1 of 4	2.3
0 of 4	.4
Have not yet received four issues	<u>1.6</u>
	100.0%
Regular readers (read 3 or more of the last 4 issues)	92.6%

Base: 699

3. How much time, on average, do you spend reading or looking into a typical issue of **Model Aviation**?

3 hours or longer	19.5%
2 to less than 3 hours	24.3
1½ to less than 2 hours	19.0
1 to less than 1½ hours	17.4
30 to 59 minutes	14.9
Less than 30 minutes	4.6
Do not read it	<u>.3</u>
	100.0%

Average 2 hours, 4 minutes

Base: 696

4. How many people, other than you, also read or look into your personal copy of *Model Aviation*?

None	71.5%
1	16.3
2	7.8
3	2.2
4	1.2
5 or more	<u>1.0</u>
	100.0%
Other readers per copy	.6
Total readers per copy	1.6

Base: 688

5. Please indicate your degree of interest in reading about each of the following in *Model Aviation*.

	Strong interest	Moderate interest	Little interest	No interest	Total	Base
Product reviews/ information	59.0%	34.6%	4.8%	1.6%	100.0%	(690)
Construction articles	51.6	36.1	11.0	1.3	100.0	(689)
Event reports	13.2	41.0	35.7	10.1	100.0	(673)
How-to articles	62.4	32.9	3.3	1.4	100.0	(694)
Technical articles	53.0	36.7	8.4	1.9	100.0	(690)
Articles for beginners	17.6	35.8	31.5	15.1	100.0	(682)

6. How do you feel about the objectivity of **Model Aviation's** product reviews/information?

Very objective	33.8%
Somewhat objective	54.0
Somewhat biased	11.5
Very biased	<u>.7</u>
	100.0%
Very/somewhat objective	87.8%

Base: 680

7. Do you save your copies of **Model Aviation** for future reference?

Yes, save all issues	38.9%
Yes, save some issues	40.3
No	<u>20.8</u>
	100.0%

Save some or all issues 79.2%

Base: 697

8. How many times in the past 12 months have you referred to previous issues of **Model Aviation** that you saved?

13 or more	7.7%
10 – 12	6.6
7 – 9	8.9
4 – 6	31.1
1 – 3	39.7
None	<u>6.0</u>
	100.0%

Average 5.3 times

Base: 549

9. Please indicate your degree of interest in reading about each of the following columns regularly appearing in *Model Aviation*.

	Strong interest	Moderate interest	Little interest	No interest	Total	Base
CL Aerobatics	6.8%	19.2%	28.1%	45.9%	100.0%	(666)
CL Carrier	1.5	8.1	32.7	57.7	100.0	(658)
CL Combat	2.7	10.7	32.2	54.4	100.0	(665)
CL Racing	2.4	9.2	32.1	56.3	100.0	(660)
CL Scale	12.3	18.3	24.2	45.2	100.0	(666)
CL Speed	3.5	10.8	30.1	55.6	100.0	(658)
FF Duration	6.4	15.8	29.4	48.4	100.0	(657)
FF Indoor	5.6	15.5	26.2	52.7	100.0	(657)
FF Scale	8.9	20.4	24.7	46.0	100.0	(661)
FF Sport	8.6	20.4	25.4	45.6	100.0	(661)
RC Aerobatics	39.3	36.4	17.2	7.1	100.0	(679)
RC Combat	13.5	30.8	33.3	22.4	100.0	(666)
RC Electrics	37.6	29.6	20.7	12.1	100.0	(680)
RC Giants	37.0	32.0	20.1	10.9	100.0	(671)
RC Helicopters	14.7	18.4	32.3	34.6	100.0	(668)
RC Jets	16.0	32.8	28.2	23.0	100.0	(673)
RC Pylon Racing	8.3	21.6	37.3	32.8	100.0	(662)
RC Scale	46.5	35.0	12.9	5.6	100.0	(683)
RC Scale Aerobatics	28.3	36.3	23.8	11.6	100.0	(661)
RC Slope Soaring	11.2	22.2	35.6	31.0	100.0	(668)
RC Soaring	15.2	22.8	34.6	27.4	100.0	(672)

10. Now, please **circle** the name of the **Model Aviation** column (listed above) that you most enjoy reading.

RC Scale	27.7%
RC Aerobatics	19.1
RC Electrics	15.7
RC Giants	10.8
RC Helicopters	4.4
RC Soaring	3.9
RC Scale Aerobatics	3.5
RC Jets	2.9
CL Aerobatics	2.5
FF Scale	1.7
RC Slope Soaring	1.4
RC Combat	1.2
FF Duration	1.0
FF Indoor	1.0
RC Pylon Racing	1.0
FF Sport	.8
CL Combat	.6
CL Speed	.4
CL Carrier	.2
CL Scale	.2
CL Racing	—
	100.0%

Base: 517

11. Please indicate your degree of interest in reading each of the following departments and sections regularly appearing in *Model Aviation*.

	<u>Strong interest</u>	<u>Moderate interest</u>	<u>Little interest</u>	<u>No interest</u>	<u>Total</u>	<u>Base</u>
Departments						
On the Fly	9.9%	48.1%	32.2%	9.8%	100.0%	(645)
Modeling Spoken Here	17.9	50.2	24.2	7.7	100.0	(660)
Letters to the Editor	21.6	41.7	25.1	11.6	100.0	(670)
Focal Point	16.1	37.1	34.4	12.4	100.0	(646)
Worth a Closer Look	23.5	46.4	22.8	7.3	100.0	(648)
Flying for Fun	33.8	47.2	14.6	4.4	100.0	(666)
Modeler's Mall	25.6	45.3	22.4	6.7	100.0	(653)
Full-Size Plans List	18.6	30.6	34.5	16.3	100.0	(663)
Engine Shop	46.9	35.8	11.5	5.8	100.0	(676)
Small-Field Flying	25.4	36.0	26.8	11.8	100.0	(662)
Safety Comes First	33.8	41.6	19.8	4.8	100.0	(662)
Micro Flying	14.8	22.2	35.1	27.9	100.0	(662)
Electronics	30.4	41.0	18.6	10.0	100.0	(678)
Old-Timers	22.0	31.4	29.7	16.9	100.0	(676)
AMA This Month						
President's Perspective	20.1	41.4	25.3	13.2	100.0	(668)
AMA Safety Code	24.8	41.6	25.2	8.4	100.0	(664)
AMA News	18.8	46.1	26.0	9.1	100.0	(669)
Focus on Competition	6.6	33.7	41.0	18.7	100.0	(664)
Contest Calendar	17.0	28.9	37.5	16.6	100.0	(664)
View from HQ	11.6	34.5	39.9	14.0	100.0	(664)
Focus on Education	10.9	40.0	36.4	12.7	100.0	(660)
Flying Site Assistance	16.6	37.6	34.2	11.6	100.0	(670)

12. Now, please **circle** the name of the department or section (listed above) that you most enjoy reading.

Engine Shop	22.6%
Flying for Fun	10.5
Electronics	7.4
President's Perspective	7.4
Modeler's Mall	7.0
Small-Field Flying	5.9
Focal Point	4.6
Contest Calendar	4.4
Old-Timers	4.2
Modeling Spoken Here	3.9
Letters to the Editor	3.1
AMA News	3.1
Worth a Closer Look	2.8
Safety Comes First	2.8
Micro Flying	2.8
AMA Safety Code	2.0
Full-Size Plans List	1.8
Flying Site Assistance	1.5
Focus on Competition	1.1
View from HQ	.7
On the Fly	.2
Focus on Education	<u>.2</u>
	100.0%

Base: 457

13. How do you feel about the amount of AMA coverage in **Model Aviation**?

Not enough AMA coverage	3.3%
About the right amount of AMA coverage	81.3
Too much AMA coverage	<u>15.4</u>
	100.0%

Base: 688

14. How valuable to you is **Model Aviation** as part of your AMA membership package?

Very valuable	52.3%
Somewhat valuable	38.8
Not very valuable	7.0
Not at all valuable	<u>1.9</u>
	100.0%
Very/somewhat valuable	91.1%

Base: 698

15. Which of the following actions have you taken in the past 12 months as a result of reading *Model Aviation*?

Purchased a product or service	54.8%
Visited an advertiser's web site	53.6
Mentioned an article to another aeromodeling enthusiast	51.6
Contacted an advertiser for more information	39.1
Adopted a new technique or changed a method of operation	33.3
Clipped or photocopied an article	26.0
Visited AMA's web site for more information	24.9
Contacted an author or person featured in an article	6.1
Requested a back issue or copy of an article through AMA	1.3
Took one or more actions	89.4%

Base: 688

16. Which of these other publications do you read regularly (at least 3 out of 4 issues)?

<i>Model Airplane News</i>	43.2%
<i>RC Modeler</i>	38.4
<i>Flying Models</i>	16.7
<i>Backyard Flyer</i>	16.1
<i>RC Report</i>	12.6
<i>Quiet Flyer</i>	11.4
<i>Fly RC Magazine</i>	9.4
<i>High Flight</i>	6.6
<i>RC Excellence</i>	.7
None of these	25.5

Base: 683

17. Which ONE publication, including *Model Aviation*, do you find **most useful** to you as an aeromodeling enthusiast?

<i>Model Aviation</i>	30.1%
<i>Model Airplane News</i>	17.8
<i>RC Modeler</i>	17.0
<i>RC Report</i>	8.0
<i>Flying Models</i>	5.8
<i>Quiet Flyer</i>	4.6
<i>Backyard Flyer</i>	3.5
<i>Fly RC Magazine</i>	2.2
<i>High Flight</i>	1.4
<i>RC Excellence</i>	—
None of these	<u>9.6</u>
	100.0%

Base: 637

18. Please explain why you chose the publication you did in question 17. What value do you receive from this magazine that you do not receive from the others?

Leading answers

Model Aviation

Variety of topics	28.8%
AMA coverage	16.2
Calendar	13.5
Product reviews	8.1
Good information	7.2
RC coverage	7.2

Backyard Flyer

Coverage of electrics	47.4%
Small scale coverage	21.1
Park flying	10.5
Product reviews	10.5
RC coverage	10.5

Fly RC Magazine

Plans	50.0%
Product reviews	37.5

Flying Models

Construction articles	34.6%
FF (free flight) topics	34.6
Old timers	15.4
How-to articles	11.5
Plans	11.5

High Flight

Large (giant) scale coverage	85.7%
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18. (Continued)

Leading answers

Quiet Flyer

Coverage of electrics	70.8%
Sailplane coverage	29.2
Soaring topics	20.8
RC coverage	12.5

RC Modeler

Product reviews	26.8%
Better advertising	18.3
Good information	17.1
RC coverage	14.6
Construction articles	12.2

Model Airplane News

Product reviews	32.5%
Construction articles	18.1
How-to articles	16.9
RC coverage	10.8
Variety of topics	9.6

RC Report

Honest writing	29.5%
Excellent articles/writing	20.5
Unbiased reviews	20.5
In-depth articles	13.6
Product reviews	11.4

19. Compared to other print publications you read covering aeromodeling, how do you rate *Model Aviation* in each of these areas?

	Above average	Average	Below average	Total	Base
Accuracy	42.6%	56.6%	.8%	100.0%	(639)
Ease of reading	33.5	62.5	4.0	100.0	(645)
Objectivity	31.4	65.0	3.6	100.0	(634)
Relevance	25.9	65.4	8.7	100.0	(622)
Thoroughness	34.5	60.4	5.1	100.0	(631)
Timeliness	29.3	65.5	5.2	100.0	(629)
Design/aesthetic appeal	32.0	59.3	8.7	100.0	(631)
Quality of writing	38.9	59.1	2.0	100.0	(640)

20. What particular topics, if any, would you like to see covered in **Model Aviation** that are not already adequately covered in the magazine?

Electrics	14.3%
Construction	9.0
Engines	8.3
Product reviews	8.3
RC	8.3
How-to articles	7.3
Helicopters	6.6
Technical information	5.3
Scale	4.7
Club news	4.3
FF	4.0
Old timers	4.0
Large scale	3.7
Kits	3.3
Beginner topics	3.0
Jets	3.0
ARF	2.7
Soaring	2.7
Batteries	2.3
Aerobatics	2.0
CL	2.0
Repair	2.0
Scratch building	2.0
Photos	1.7
Safety	1.7
Sailplanes	1.7
Small scale	1.7
Electronics	1.3
Float flying	1.3
Pylon racing	1.3
Aerodynamics	1.0
Plans	1.0
Sport flying	1.0
Gliders	1.0
Unbiased reviews	1.0
Indoor rubber	1.0
More in-depth	1.0
Other	13.0

Base: 301

21. What is your single most important concern regarding **Model Aviation**?

Loss of flying sites	12.8%
Safety issues	9.7
More product reviews	7.0
Continue to publish	6.0
Cost	6.0
Too broad	6.0
More RC	5.6
Less AMA coverage	4.7
Keeping current/up-to-date	3.3
Improve format	3.3
Less RC	3.3
More construction	2.3
More variety	2.3
Keep ads to a minimum	1.9
Less beginner information	1.9
Less competition coverage	1.9
Attract young members	1.9
More sport flying	1.9
More technical information	1.9
More clubs	1.9
More electric coverage	1.4
More on helicopters	1.4
More how-to articles	1.4
More scale flight	1.4
Other	<u>8.8</u>
	100.0%

Base: 215

22. Have you visited the **Model Aviation** portion of AMA's web site (www.modelaircraft.org)?

Yes	48.5%
No	<u>51.5</u>
	100.0%

Base: 678

23. Which types of information would you like to read about on the AMA web site?

How-to articles	63.7%
Product reviews/information	54.2
Technical articles	53.4
Construction articles	52.4
General aviation subjects	27.0
Beginner information	24.9
Event reports	16.1
One or more	89.9%

Base: 603

24. How do you prefer to receive information about aeromodeling and AMA?

<i>Model Aviation</i> and other print publications	90.5%
<i>Model Aviation</i> online and AMA Web site	10.4
Newsletters and information delivered via e-mail	7.8

Base: 666

About Their Hobbies

25. How long have you been an aeromodeling enthusiast?

Less than 1 year	2.6%
1 – 5 years	16.2
6 – 10 years	8.5
11 – 15 years	10.5
16 – 20 years	8.5
21 – 30 years	10.9
31 years or longer	42.7
Not an aeromodeling enthusiast	<u>.1</u>
	100.0%
 Average	 26.8 years

Base: 698

26. Which types of model aircraft are you involved with?

RC (radio control)	93.5%
Gas/Glow	71.4
Almost Ready to Fly (ARF)	56.1
Electric	43.3
Park Flyers	32.7
Trainers	32.4
Ready to Fly (RTF)	15.8
FF (free flight)	10.9
CL (control line)	9.5
One or more	99.4%

Base: 697

27. How often do you fly model aircraft?

3 or more times a week	12.8%
1 or 2 times a week	38.6
2 or 3 times a month	25.4
Once a month	8.3
Less than once a month	13.6
Never	<u>1.3</u>
	100.0%
Once a month or more	85.1%
Average	5.7 times/month

Base: 690

28. How many of each of the following did you build or assemble in the past 12 months?

	RTF (Ready to Fly)	ARF (Almost Ready to Fly)	Build from plan	Build from kit	Scratch build	Total
None	84.6%	41.2%	72.6%	42.5%	74.5%	8.6%
1	9.2	27.9	15.4	30.3	13.9	14.2
2	4.1	15.2	5.9	16.7	5.3	20.8
3	.6	6.4	3.8	6.8	2.4	17.3
4	.6	4.4	1.2	1.6	1.8	13.3
5 – 9	.6	3.4	1.0	1.2	1.2	19.6
10 or more	<u>.3</u>	<u>1.5</u>	<u>.1</u>	<u>.9</u>	<u>.9</u>	<u>6.2</u>
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
One or more	15.4%	58.8%	27.4%	57.5%	25.5%	91.4%
Average	.3	1.4	.5	1.2	1.1	4.5

Base: 677

29. Which of the following do you plan to purchase in the next 12 months?

Engine/motor	53.6%
ARF model	42.6
Balsa wood	42.1
Batteries for electric models	35.3
Materials to scratch build	30.9
Radio	27.4
Plans	18.7
RTF model	6.4
One or more	90.4%

Base: 686

30. How many engines do you have by each of the following types?

	.000– .048 ci	.049– .09 ci	.10– .20 ci	.21– .39 ci	.40– .59 ci
None	84.3%	60.6%	65.3%	53.4%	18.7%
1	5.4	11.9	14.8	18.3	18.0
2	5.1	10.3	9.8	12.7	18.0
3	1.3	5.8	3.8	6.0	12.4
4	1.0	3.6	2.5	4.1	11.1
5 – 9	1.2	5.5	2.6	3.3	18.2
10 or more	<u>1.7</u>	<u>2.3</u>	<u>1.2</u>	<u>2.2</u>	<u>3.6</u>
	100.0%	100.0%	100.0%	100.0%	100.0%
One or more	15.7%	39.4%	34.7%	46.6%	81.3%
Average	.7	1.7	1.3	1.9	3.1

Base: 687

30. (Continued)

	.60- .75 ci	.76- .99 ci	1.0- 2.0 ci	Over 2.0 ci	Total
None	34.9%	62.7%	66.8%	78.5%	4.8%
1	22.8	17.8	15.7	11.4	4.5
2	18.6	10.3	7.9	5.4	5.7
3	8.6	5.4	3.9	1.6	7.7
4	5.8	1.7	2.9	1.2	7.9
5 - 9	7.3	1.7	2.2	1.0	31.1
10 or more	<u>2.0</u>	<u>.4</u>	<u>.6</u>	<u>.9</u>	<u>38.3</u>
	100.0%	100.0%	100.0%	100.0%	100.0%
One or more	65.1%	37.3%	33.2%	21.5%	95.2%
Average	1.9	.8	.7	.5	12.6

Base: 687

31. If you have models with electric motors:

a. What percentage of your electric motors are of each of the following types?

	Ferrite	Cobalt	Brushless	Other
None	29.4%	68.3%	59.7%	96.7%
1% – 9%	1.4	3.1	.3	–
10% – 19%	1.7	4.4	2.0	–
20% – 29%	2.7	5.1	6.5	.7
30% – 39%	1.0	1.0	1.0	.3
40% – 49%	1.4	1.4	.7	–
50% – 59%	10.9	7.5	9.9	–
60% – 69%	1.4	.3	1.0	–
70% – 79%	2.0	.7	1.4	.7
80% – 89%	3.1	–	1.4	.3
90% – 99%	4.8	.7	2.4	.3
100%	<u>40.2</u>	<u>7.5</u>	<u>13.7</u>	<u>1.0</u>
	100.0%	100.0%	100.0%	100.0%
Average	56.7%	15.2%	25.7%	2.4%

Base: 293

31. (Continued)

b. What percentage of the batteries in your electric motors are of each of the following types?

	Ni-CD	NiMH	Li-Poly	Other
None	17.6%	40.2%	80.9%	99.4%
1% – 9%	.3	1.2	.9	–
10% – 19%	1.5	4.7	3.2	–
20% – 29%	3.5	13.5	4.4	.3
30% – 39%	1.5	4.1	.9	–
40% – 49%	1.2	3.8	.9	–
50% – 59%	18.2	16.2	3.2	–
60% – 69%	4.1	2.1	1.2	–
70% – 79%	7.4	2.1	.3	–
80% – 89%	6.2	.3	1.5	–
90% – 99%	5.3	.9	–	–
100%	<u>33.2</u>	<u>10.9</u>	<u>2.6</u>	<u>.3</u>
	100.0%	100.0%	100.0%	100.0%
Average	62.0%	29.2%	8.4%	.4%

Base: 340

32. How much did you spend in the past 12 months, in total, on aeromodeling and related products?

\$3,000 or more	7.0%
\$2,000 – \$2,999	7.3
\$1,000 – \$1,999	15.7
\$750 – \$999	11.4
\$500 – \$749	16.0
\$250 – \$499	21.7
\$100 – \$249	12.7
\$1 – \$99	4.8
Nothing	<u>3.4</u>
	100.0%
Average	\$1,039
Median	\$617

Base: 686

33. What percentage of your purchases in the past 12 months of aeromodelling and related products were by each of the following methods?

	Local hobby shops	Web	Catalog	Other
None	6.7%	56.0%	48.2%	84.7%
1% – 9%	3.5	4.1	3.5	1.8
10% – 19%	10.2	6.4	9.3	2.6
20% – 29%	11.6	9.0	10.4	3.2
30% – 39%	5.8	2.4	2.4	1.5
40% – 49%	4.3	3.7	3.5	.8
50% – 59%	11.9	5.8	7.2	2.1
60% – 69%	3.5	1.5	1.4	.6
70% – 79%	8.4	3.4	4.6	.5
80% – 89%	5.6	1.4	2.3	.8
90% – 99%	8.5	4.3	4.1	.6
100%	<u>20.0</u>	<u>2.0</u>	<u>3.1</u>	<u>.8</u>
	100.0%	100.0%	100.0%	100.0%
Average	53.9%	18.5%	22.1%	5.5%

Base: 655

34. In which of these other model hobbies do you have an interest?

Boats	27.2%
Cars	19.6
Other radio control	18.3
Rockets	12.7
Static/plastic/diecast	9.3
One or more	55.1%

Base: 679

Demographic Characteristics

35. What is your gender?

Male	99.6%
Female	<u>.4</u>
	100.0%

Base: 696

36. What is your age?

Under 18	.7%
18 – 20	.3
21 – 24	.4
25 – 34	4.3
35 – 44	13.9
45 – 54	19.3
55 – 64	24.9
65 – 74	24.5
75 or older	<u>11.7</u>
	100.0%
Average	57.5 years
Median	58.9 years

Base: 690

37. What is your marital status?

Single, never married	6.0%
Married	79.8
Separated/divorced	10.0
Widowed	<u>4.2</u>
	100.0%

Base: 688

38. How many members of your household, other than you, participate in the model aviation hobby?

3 or more	2.7%
2	4.6
1	17.0
None	<u>75.7</u>
	100.0%
One or more	24.3%

Base: 693

39. Have you worked in aerospace/aeronautics?

Yes, currently	8.0%
Yes, in the past	17.2
No	<u>74.8</u>
	100.0%
Currently work/have worked in aerospace/aeronautics	25.2%

Base: 690

40. Which ONE of the following best describes the occupation of the primary wage earner in your household?

Professional/technical	32.8%
Craft/trade	9.4
Middle management	7.7
Top management	6.5
Laborer/operative	3.0
Sales	2.6
Service	1.9
Administrative	1.3
Military	1.0
Clerical	.4
Farming	.4
Student	.3
Clergy	—
Other	.3
Retired	<u>32.4</u>
	100.0%

Base: 691

41. What is the highest level of education you have completed?

High school or less	21.0%
Some college	27.9
Associate's/technical degree	15.2
Graduated 4-year college	15.9
Some postgraduate study	7.5
Master's degree(s)/JD	8.7
Doctorate(s)	<u>3.8</u>
	100.0%
Some college or better	79.0%
4-year college graduate or better	35.9%

Base: 692

42. In which US state is your primary residence?

California	14.3%	Connecticut	1.1%
Florida	7.3	Maryland	1.1
Ohio	6.4	Louisiana	1.0
Pennsylvania	5.3	New Hampshire	1.0
Texas	4.9	Virginia	1.0
Illinois	4.7	Alaska	.9
Michigan	4.0	Kentucky	.9
New York	4.0	Utah	.9
Washington	3.1	Arkansas	.7
Massachusetts	2.9	Kansas	.7
North Carolina	2.9	Nebraska	.6
Indiana	2.7	New Mexico	.6
New Jersey	2.7	Idaho	.4
Colorado	2.6	Delaware	.3
Georgia	2.1	Montana	.3
Minnesota	2.0	South Dakota	.3
Missouri	2.0	West Virginia	.3
Tennessee	1.9	Hawaii	.1
Nevada	1.7	North Dakota	.1
Oklahoma	1.6	Rhode Island	.1
Wisconsin	1.6	Wyoming	.1
Arizona	1.4	Outside U.S.	<u>.1</u>
South Carolina	1.4		100.0%
Alabama	1.3		
Iowa	1.3		
Oregon	1.3		

Base: 700

43. Counting all sources, what is your household's total combined annual income before taxes?

Less than \$25,000	5.0%
\$25,000 – \$34,999	10.4
\$35,000 – \$49,999	16.6
\$50,000 – \$74,999	26.6
\$75,000 – \$99,999	19.1
\$100,000 – \$149,999	14.1
\$150,000 – \$199,999	4.7
\$200,000 or more	<u>3.5</u>
	100.0%

Average	\$80,870
Median	\$67,630

Base: 597