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3355 Fillmore Ridge Heights Colorado Springs, Colorado 80907-9024 USA

www.ApogeeRockets.com e-mail: orders@apogeerockets.com Phone: 719-535-9335 Fax: 719-534-9050

A Competitive Analysis: Who Should You Buy Rockets From?

By Tim Van Milligan

"If Apogee Components didn't exist, where and from who would I buy my own rocket supplies from?" That's a question I often ask myself. The reason is that I want to make Apogee Components better than every other choice that you have. It really is that simple. So, by answering that question, I can see who is doing a good job, and figure out what I can borrow from their business strategy to help Apogee Components.

In this article, I'm going to name names. I'm going to tell you specifically who I'd buy from if Apogee wasn't around. This goes against what you might have heard from business gurus. They say to never mention your competitors; don't talk bad about the other guys that have bad service and definitely don't talk about the ones that are really competitive.

But I'm going to break those rules here. And the reason is that I want to give them some of the credit for how they've shaped the way we've done things here at Apogee. They have helped us by forcing us to get better at serving you and our other customers.

After that, I'm going to spill the beans and tell you some of my most guarded secrets on our business strategy here at Apogee. If I was a competitor up against Apogee, this is the kind of information I'd want to know, so that I'd have a fighting chance of putting Apogee out of business and taking more market share.

I'm sure you're interested, so let's get started. Let's begin with online merchants. Who should you buy from?

Online Rocketry Sellers

If I was buying for myself, the first place I'd go to is Randy Boadway at eRockets.biz (**Figure 1)**

Why would I choose to buy from Randy? For one thing, the huge selection of rocket kits is simply outstanding. I've been watching Randy from the time he opened up his shop, and I was amazed at how quickly he gathered up all the kits from various rocketry manufacturers. A lot of online shops start with the Estes kits, add some Aerotech motors and call it a day. But Randy scoured the bushes and found all kinds of garage-shop rocket kit operations to sell. If he isn't close to 1000 different rocket kits by now, it won't be long until he does.

This is something Apogee Components has done in the past, so I know how much work it takes on Randy's part. It is a logistical undertaking of the highest order. Keeping up with dozens of different manufacturers each with their own unique way of doing business is tough. You have to stay on top of the situation, or you run out of inventory and you can't keep your customers happy.

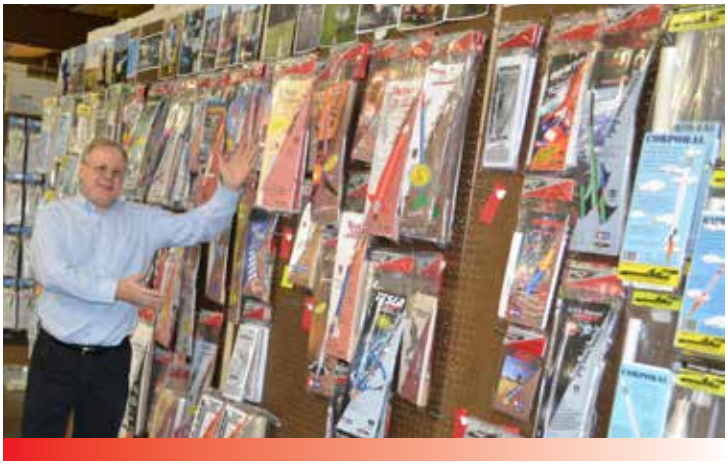


Figure 1: Randy showing off his large selection of kits.

I also like the Semroc brand, which is now a private brand of eRockets. Originally, Semroc was owned by Carl McLawhorn, who passed away a few years back. Randy was able to buy the company from Carl's family. I also tried to get the company, but Randy beat me to it. Semroc is a valuable brand of kits because Carl was a great owner and put a lot of work and love into the models. What I particularly like about the Semroc kits that Carl produced are the instructions. Carl was an artist, and you can see that in the number of illustrations there are in the pages of the instructions. They inspire my own work here at Apogee to do better illustrations in our own instructions.

The other reason to buy from Randy is the support he gives to the hobby. In 2016 he was the director of NARCON and hosted the event in Dayton, Ohio. I can only imagine how much work that was, and doing it at the same time he was running his business is amazing. He allowed all the participants of NARCON to come through his shop and see how he runs his operation. At the time, I thought he was crazy for revealing his secrets to other manufacturers who might be in attendance, but now I've come to realize what brilliance it was. I personally came away with even more respect for what he's doing, which means I wanted to carry more of his products on my own website.

Randy is not a fly-by-night discount rocket dealer. Those people, in my opinion, are pariahs in the hobby. They draw newbie rocketeers from other dealers by offering a rock-bottom price on supplies. But then the newbie is left hanging without the technical support they need to be suc-

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About this Newsletter

You can subscribe to receive this e-zine FREE at the Apogee Components website **www.ApogeeComponents.com**, or by clicking the link here Newsletter Sign-Up

Newsletter Staff

Writer: Tim Van Milligan
Layout/Cover Artist: Chris Duran
Proofreader: Will Franks

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cessful and hopefully move up into more challenging aspects of rocketry. So those modelers are 'one-and-done.' They fly one rocket and leave the hobby. I hate discount dealers because they don't support the people that need them the most.

The deep discount dealer doesn't know what damage they are doing to the hobby, it's that simple. Fortunately, discount dealers don't last long in the industry because they don't make enough money to survive long-term. Why? Because there is always someone else that thinks they can sell for even lower prices. Before long, these discounters run one another into the ground.

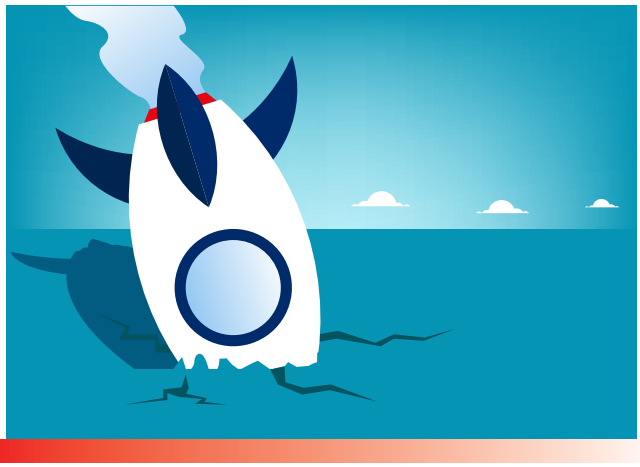


Figure 2: Deep discounting harms the industry by ignoring the needs of the customer.

What I like about Randy is he's found a way to offer attractive prices and still be profitable enough to support the rocketeers. For example, he has build sessions at his shop for the local rocketry club. To be honest, Randy has kept me on my toes, which is a good thing for customers like you.

My other choice for buying rocket supplies is from Andy Jackson at Aerospace Specialty Products (www.asp-rocketry.com).

Andy is a lot like myself in that he likes rocketry competition. So, he founded the company in that vein. But it has grown over the years to include a variety of other types of rockets. While he does carry the Estes kits, he also has his own rocket line with lots of scale models which are very nice. That is the reason that Apogee carries a nice selection of ASP kits.

I see Andy a lot at the rocketry conventions, which is why I don't mind sending people in his direction for supplies if they don't buy from Apogee. I know that he will treat them well and give them the technical guidance they need to move up in the hobby.

When it comes to High-Power rockets, my first choice would be to buy from Michael Stoop of Mad Cow Rocketry (www.madcowrocketry.com).

Mike has a huge variety of big rocket kits, many of them fiberglass. So, you'll find a good selection to choose from.

Mad Cow was probably my favorite supplier for a number of years in a row. The reason was we could always count on him to fill our order quickly and accurately. As I mentioned previously, it can be a challenge to deal with so many different suppliers that have unusual quirks. So when we find one that makes our life easier by shipping what we need when we need it, we really take notice.

What I like is that he runs it like a business, not a hobby, and knows that customers won't stick around if they aren't being served. So he always has been responsive to our emails and phone calls.

On-site Sales

I would also buy rockets from those vendors that provide on-site sales at local rocket launches. These companies are the epitome of customer service. They aren't waiting for customers to come to them, they are going to the launches to meet them there. What's more, they are keeping rocketry safe. How so? I've seen a lot of people at launches that show up with the wrong motors and are just going to fly them because they don't have any other options. I've told a lot of those people to go over to the vendors and get the right motor for the rocket and the conditions. Because they've shown up, we've prevented a lot of crashes, which is always a good outcome.

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Locally here in Colorado, we have Joe Hinton (www.moto-joe.com). He drags his supplies all over the state, and we really appreciate him for that. And he is willing to share his insight and wit with anyone that asks for it.

I don't know all the vendors that make it to the local launches, but I would heartily endorse them and suggest you buy from them too.

Apogee Components attends a few launches, but I have made a choice not to sell products there. The reason is that these other vendors need support.

Special Mention

There is one company that deserves a special mention for the work they do. That is Estes Industries (www.estesrockets.com).

Estes is obviously the granddaddy of the industry. What they've done for Apogee Components is to set a historically high bar for their level of service. And for that, I admire them. I used to work there in the early 1990's, so I remember how the customers were treated. If the customer had a problem, the general response was to send them a replacement. I don't know if that is still the philosophy there at Estes, but it left a mark on me when I started running Apogee.

Apogee's Business Strategy

Here is the part where I'm going to expose some of the greatest secrets Apogee Components has in how we do business. I've been hiding these, hoping that no one discovers them and uses them to recreate our own success. In fact, when I hire employees and I tell them these secrets, I make it known that I don't want them to tell other people about them and to guard them as proprietary corporate information.

But I'm going to do it myself. There are five distinct strategies that I think makes Apogee different and I hope that it also brings us success.

My first business strategy started on day one of my running of Apogee. I was looking around at the other companies in the industry, trying to figure out how I could be unique. The one thing that I came up with was my technical expertise.



Figure 3: Vern Estes, the founder of Estes Industries.

My advantage back in 1994 was that I was one of the few real aeronautical engineers in the industry. So I decided to leverage that by becoming an authority in the hobby by writing books and technical reports about rocketry.

To be honest, it wasn't a new strategy. Becoming an authority was the same one that Vern Estes took (**Figure 3**). Back in 1960, there was no information about rocketry, so he was able to create it and sell it more easily. Because of that, there was already a stash of information that I had to compete against. But I felt that with enough time, I could become someone with enough authority to guide customers to products I thought could help them.

That is why you're reading this article right now in the Apogee Peak-of-Flight Newsletter. I'm still working to become an authority in the hobby. I'm still pursuing it, even after two books, 454 newsletters, and 237 YouTube videos.

From your perspective, this expertise looks like "information." And that is what we think is different about Apogee. Our strategy has been to have more information than anyone else.

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AND INFORMATIVE HOW-TO VIDEOS
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The second business strategy that we follow here at Apogee that I think makes us different is our level of customer service.

I know you're thinking the same thing that goes through my head when I hear other companies talk about how good their customer service is. When I hear them say how great they are, I feel unimpressed. It seems that everyone says this.

So I agonize over what customer service really means. Is it like what I was taught at Estes, where we just send out replacement merchandise? Or is it more than that?



Figure 4: Our front desk employees answer your calls promptly and courteously.

I know a lot of companies have what I call "smile training" in regards to customer service. They tell their employees to put a smile on their face when they interact with customers because that will put them in a better mood. But I feel that you can never predict what mood you'll be in 20 minutes, so it must be a bigger than that.

What we've done here at Apogee is to define a minimum level of service that every customer will receive, and how we'll deliver that to them. It is broken down into two components. The first component of customer service, which is the second strategy for Apogee, is the "experience" that we're trying to provide.

For example, give us a call on the phone some day (**Figure 4**). The way we answer the phone is not random. I train everyone to answer the phone the same way so that every customer has the same experience from us.

Answering the phone, by the way, is something that is growing more and more unique. I'm sure you've noticed this too. How many companies don't answer their phones? Or they send it right to the voicemail machine where you can press 1 for English, 2 for Spanish, then 1 for sales, 2 for support, 3 for technical service. You get the idea… They don't want to talk to you on the phone.

I know it causes a lot of extra work for our team here at Apogee, but I personally like it when customers place orders by telephone rather than via our website. Answering the phone takes a lot more time and effort than an order that arrives via the internet. But I'm thinking from the customer's perspective. Which customer has a greater "experience"? Isn't it the "experience" that makes the purchase memorable? In my opinion, it is; which is why I encourage customers to call us.

Our phone number is not hidden on our website like it is on many sites you've visited. It is posted on every webpage, along with our hours and address and a contact form. I don't want customers to have to waste their time trying to find contact information for us.

And I do know what other companies are hiding from. They are trying to avoid answering "technical service" questions from customers. They don't want to spend an hour on the phone answering a question that is written somewhere on the website. Or one that they are embarrassed to answer because their product isn't quite as good as they thought. They aren't fun. And because of it, I probably say "I'm sorry" and apologize a million times a day. It is really embarrassing when the "rocket authority" doesn't know the answer, right? But I don't know all the answers. I'm still learning too.

From a customer service perspective, the other experience we guarantee to all customers is that their order will ship out "today!" If you order by 2 p.m. (our time here in Colorado), we're going to do our best to get it into the mail by end-of-day. Why do we do this? Because this is the age of Amazon Prime shipping, so we have to compete against that. It just seems to be the right thing to do, and something I expect when I make purchases too.

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The third business strategy we follow here at Apogee is related to experience and customer service. It is that the experience (whatever it may be) must be "rewarding." This is harder to define, but something I also agonize over. I'm constantly asking "what is the reward to the customer for doing business with us?" For many companies, I've seen them define the reward by the amount of your discount. But from my perspective, a discount means that your experience in other areas has to be reduced because service is expensive. I don't discount because I don't want you to feel cheated by not being provided superior technical support, or not having someone on our staff taking the time to walk you through the process of getting a Level 1 certification.

In many ways the reward is simply "listening" (**Figure 5**). I believe that customers have an unstated need for attention. In the internet age where everything is automated, there is a human connection that is getting lost and it feels like no one cares about your goals. This is why I answer emails at all hours of the day because I know you're hoping to find someone that is listening.

When it comes to your rewarding rocketry experience, I hope you can tell that we at Apogee care. I would rather you be successful in your endeavors than for us to make a quick sale. That is what I mean by the phrase on our website that says: "Your success is our mission." We will never be successful until you achieve your own rocketry success.

Our fourth strategy for success is our mission to provide "resources." The resources are the products and services that we sell. From your perspective, they are the supplies you need to complete your projects. If we don't have the supplies you need, then you'll go somewhere else to get them.

That is why we stock so many different items at a high quantity rate. You've probably heard me say this before, but my accountant keeps telling me that we have too much inventory on hand. We'd be more profitable if we did something like just-in-time inventory so that our warehouse was smaller. But I don't do that because I know hiccups will occur in the delivery of components to us, and we'll be out of stock when you need it most. It has happened before and would happen again in the future.



Figure 5: We make ourselves available to our customers so that we can listen, hear and understand their individual needs.

The final strategy rung in the ladder of success that we've used at Apogee is: "Innovation." I wanted Apogee to innovate new products that weren't copies of what Estes was doing. Copying what Estes does is not a recipe for success in my eyes. How many companies have come and gone over the last 20 years because they thought they could do what Estes was doing, but maybe a little cheaper? They're all gone now.

To have success, you have to be different, which is what I intended by the word innovation.

For example, when I first started out, I made 10.5mm diameter motors, because they were a different size from Estes. I wrote books because Estes was only writing pamphlets. I made competition rockets because Estes was making beginner level rockets.

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www.apogeerockets.com/Rocket_Kits/Skill_Level_4_Kits/Gyro_Chaser



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Innovation isn't always sexy, sometimes it is just a different approach.

And sure, Apogee has been innovated with quite a few sexy new products, like RockSim, our glider and helicopter recovery rockets. But not every new change is done here. One of the ways we improve is to work with our suppliers and leverage their expertise. This is how we began a relationship with Jolly Logic and were first to sell the AltimeterOne altimeter (https://www.apogeerockets.com/Electronics-Payloads/Altimeters/Jolly-Logic-AltimeterOne). We're working with other suppliers right now to release some other exciting products in the future too.

We're also using innovation behind the scenes too. I invest heavily in new technology in order to provide faster and more accurate fulfillment of orders to customers. Right now, as I write this, we're in the process of switching over



Figure 6: The Shrockets kits were created with attention to developing more accurate and well designed instructions for our customers

to a new accounting software so that we have a better way to track inventory. The big selling point for me is that we hope it will better merge our website to the inventory system. That way you and other customers will have a better handle on what is in stock on our website. I know you are frustrated when an item is backordered. And I know you want to know when we expect more inventory. With our new system, I want to show you the date that we placed the order with our suppliers, so you can know when we'll have more. Right now, our customers assume that if an item is on back-order, that we haven't ordered it from our suppliers. That's not really true, and I can assure you that we order everything before we run out of stock. But when customers want to buy it, the assumption is that we've been asleep at the switch and haven't even ordered it yet.

We've also been innovating with the way we design rockets. I've written about this in previous newsletters. I invested in a laser cutter a few years ago which changed the way we make kits. After that, I learned a new CAD system so that I could design rockets better. It also changed the way we make the illustrations for our instructions. You can see how technically accurate they are if you download some of the newer ones, like those found in the Shrockets (https://www.apogeerockets.com/Shrockets-by-Apogee) line of kits (**Figure 6**).

I also got a 3D printer last year that is changing how we manufacturer various components. It has definitely sped up our output of kits. We've already released 12 new kits this year made here at Apogee!

To review, our five strategies for success here at Apogee Components are:

1. Provide a unique customer experience
2. To make that experience a rewarding one
3. To provide in depth information to help you achieve your goals.
4. To provide the resources you need to be successful
5. To provide innovative products that aren't available anywhere else

What's Next?

Having completely exposed our business strategy, you may be wondering if we're going to be changing it at all? The answer is no. We'll be keeping the same strategy in the future that we used to get us here. I'm sure you and our other customers will still want the same rewarding experience you've gotten from us in the past. And you'll still want us to have the products in stock when you need them, and for us to continue to create new and innovative products that aren't currently on the market.

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What will change is the way we go about delivering on the five components. We'll have to up our game because now all our competitors know what we're trying to do.

Sure, there is nothing to stop a future competitor from trying to emulate what we're doing. It has worked for us, and surely it will work in the future too.

So will they? Will someone try to duplicate what we're doing here at Apogee? I think someone will try, which is why we'll continue to deliver better in the future on those five success strategies.

We here at Apogee hope that this article gives you an insight not only into other companies in the rocket field, but also pushes us to continue to innovate and improve to provide the best service to you, the customer.

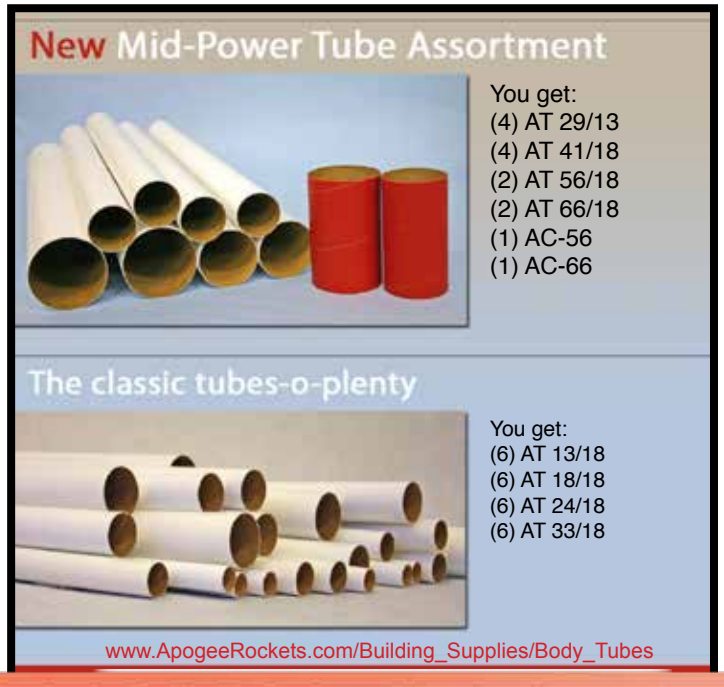
About The Author:

Tim Van Milligan (a.k.a. "Mr. Rocket") is a real rocket scientist who likes helping out other rocketeers. He is an avid rocketry competitor and is Level 3 high power certified. He is often asked what is the biggest rocket he's ever launched. His answer is that before he started writing articles and books about rocketry, he worked on the Delta II rocket that launched satellites into orbit. He has a B.S. in Aeronautical Engineering from Embry-Riddle Aeronautical University in Daytona Beach, Florida, and has worked toward an M.S. in Space Technology from the Florida Institute of Technology in Melbourne, Florida. Currently, he is the owner of Apogee Components (http://www.apogeerockets.com) and also the author of the books Model Rocket Design and Construction, 69 Simple Science Fair Projects with Model Rockets: Aeronautics and publisher of the "Peak-of-Flight" newsletter, a FREE e-zine newsletter about model rockets. You can email him by using the contact form at https://www.apogeerockets.com/Contact.

Are you a business? Do you want even more information on how Apogee operates?

The way we operate at Apogee Components is pretty unique and I think a lot of businesses might learn something from how we operate and how we make the buying experience special for customers. If you're interested in knowing more and want to see us in our daily operations, know that I am willing to expose even more secrets. For a small price (something north of $5,000), I'll let you come to Apogee for a week and follow us around and ask us anything about how we operate. I'll call it the "ask us anything" deal. Just email me, and we can show you how to help you and your business be more successful.

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