

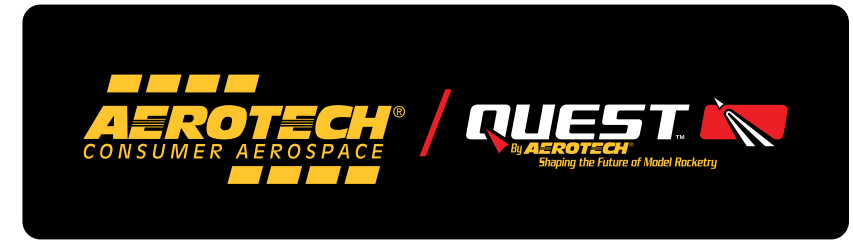
# Manufacturers' Forum

Virtual NARCON 2024

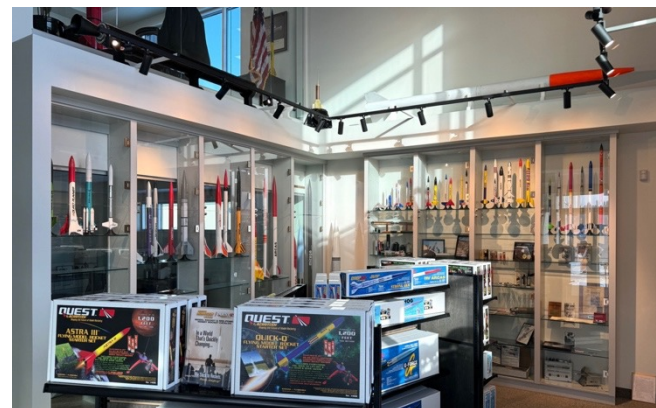
National Association of Rocketry

January 26, 2024

# 2023-Our Best Year Ever!



- We've moved into the new facility
- Southern Utah University (SUU)/RCS Internship program
- Already hired three employees from SUU with plans to hire at least one more this year
- Teaching solid propulsion course at SUU
- We've been asked to participate in the SUU STEM outreach program
- Museum store nearly ready
- Museum of Composite Propellant Hobby Rocketry is a work in progress
- Grand opening to the public planned for late Spring



# Limited Quantity Shipping

- In September 2023, AeroTech/RCS determined and confirmed with the USDOT/PHMSA that it was possible to ship limited quantities of certain rocket motors and reload kits under the DOT's "limited quantity" provisions when using the DOT-SP 7887 flammable solid special permit
- Restricted to motors and reloads with no more than 62.5 grams of propellant per motor or propellant grain
- Although there are some packaging stipulations, this allows the shipment of these products via FedEx and UPS without any hazmat fees or paperwork whatsoever, saving customers big \$\$\$!!
- Once confirmed, AeroTech/RCS shared this information with our dealers, distributors and the public immediately
- This was probably the biggest regulatory news for the hobby since the ATF lawsuit was won in 2009!



East Building, PHH - 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

DOT-SP 7887  
(NINETEENTH REVISION)



# Recap of Last Year's Releases



- **24mm x 95mm F41W White Lightning™ Q-Jets™**

- White Lightning propellant w/phenolic nozzle
- 46 N-sec total impulse
- 1.1 sec burn time
- 30.0 g propellant weight
- 62.0 g total weight
- 5, 8 & 11 sec delays
- 93% of the total impulse of an F15 BP motor
- 60% of the weight of an F15 BP motor
- TRA certified & CSFM approved
- \$28.99 MSRP for a complete 2-pack that includes FirstFire Mini Initiators, wadding and Q-Pics



# Recap of Last Year's Releases



- **29mm x 83mm E24C Classic Enerjet™**
  - Enerjet Classic™ propellant
  - 36.3 N-sec total impulse
  - 1.6 sec burn time
  - 18.4 g propellant weight
  - 70.7 g total weight
  - 4, 7 & 10 sec delays
  - TRA certified & CSFM approved
  - \$41.99 MSRP for a 2-pack that includes FirstFire Jr. Initiators



# Recap of Last Year's Releases



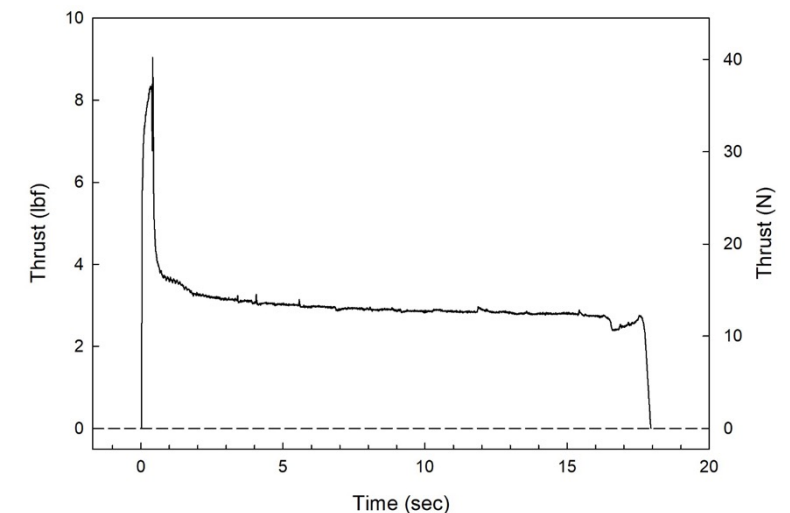
- **29mm x 83mm F67C Classic Enerjet™**
  - Enerjet Classic™ propellant
  - 77.5 N-sec total impulse
  - 1.4 sec burn time
  - 36.8 g propellant weight
  - 85.7 g total weight
  - 6, 9 & 14 sec delays
  - TRA certified & CSFM approved
  - \$49.99 MSRP for a 2-pack that includes FirstFire Jr. Initiators



# Recap of Last Year's Releases



- **H14ST-P Long-burn DMS™ motor**
  - Super Thunder™ propellant core-modified endburner, 1" longer than the H13ST-P
  - 29mm diameter x 203mm long
  - 240.1 N-sec total impulse
  - 18.3 sec burn time
  - 134.1 g propellant weight
  - 229.5 g total weight
  - Plugged only, must use electronic recovery system deployment
  - Great for lightweight rocket flights to record-setting high altitudes over 20,000 feet
  - TRA certified & CSFM approved
  - \$62.99 MSRP

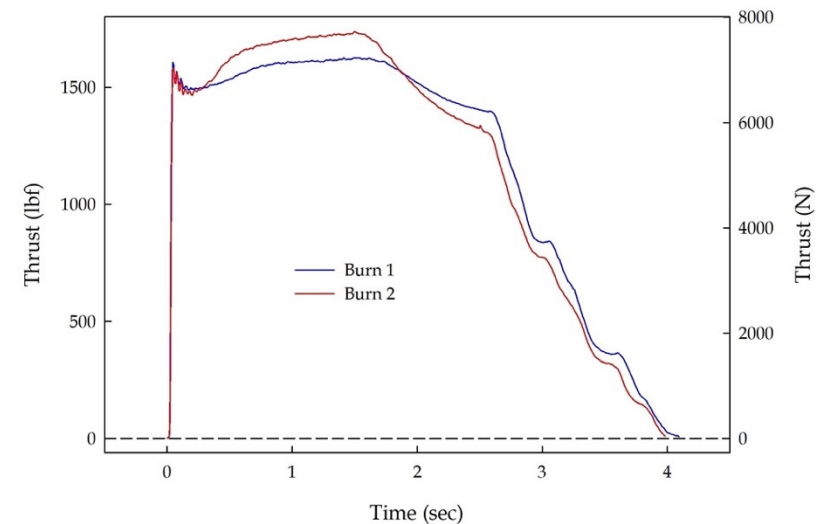


# Recap of Last Year's Releases



- **O5500X-PS 98mm DMS™ Motor**

- 21,384 N-sec total impulse
- 7,552 N peak thrust
- 4.03 sec burn time
- 9,779 g propellant weight
- 16,937 g total weight
- Plugged only, must use electronic recovery system deployment
- Highest performance 98mm motor available
- TRA certified, not for consumer sale in California
- \$2,999.99 MSRP





# Recap of Last Year's Releases



## • M2225WS-PS 75mm RMS™ Reload Kit

- Super White Lightning™ propellant
- Designed for RMS-75/5120 hardware
- 5,205 N-sec total impulse
- 2,418 N peak thrust
- 2.32 sec burn time
- 2,331 g propellant weight
- 4,685 g total weight
- Plugged only, must use electronic recovery system deployment
- Perfect for L3 attempts or high performance flights
- TRA certified & CSFM approved
- \$405.99 MSRP

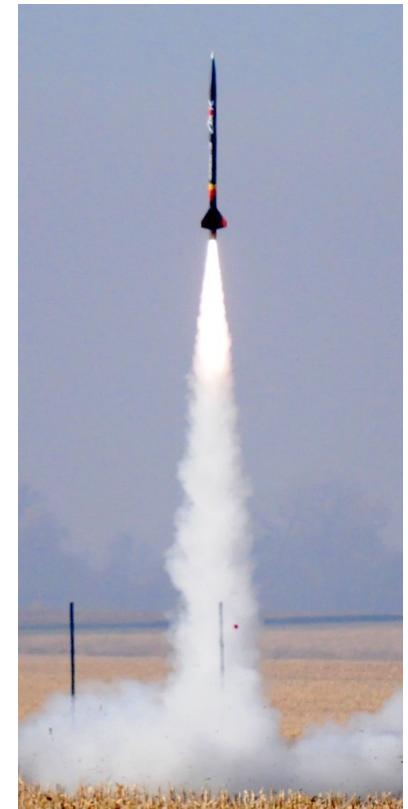
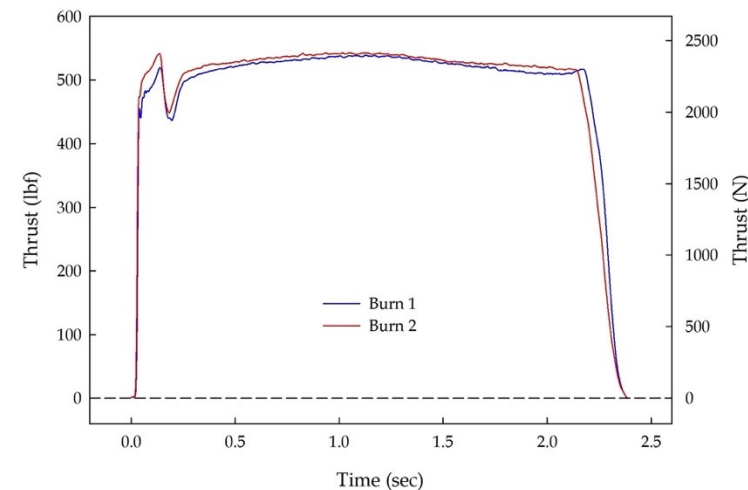


Photo by Justin Farrand

# Recap of Last Year's Releases



## • N4000W-PS 98mm RMS™ Reload Kit

- White Lightning™ propellant
- Designed for our new RMS-98/20480 hardware
- 18,184 N-sec total impulse
- 5,398 N peak thrust
- 4.75 sec burn time
- 9,800 g propellant weight
- 16,375 g total weight
- Plugged only, must use electronic recovery system deployment
- Perfect for large, heavy rockets or high altitude flights
- TRA certified, not for consumer sale in California
- \$1,799.99 MSRP

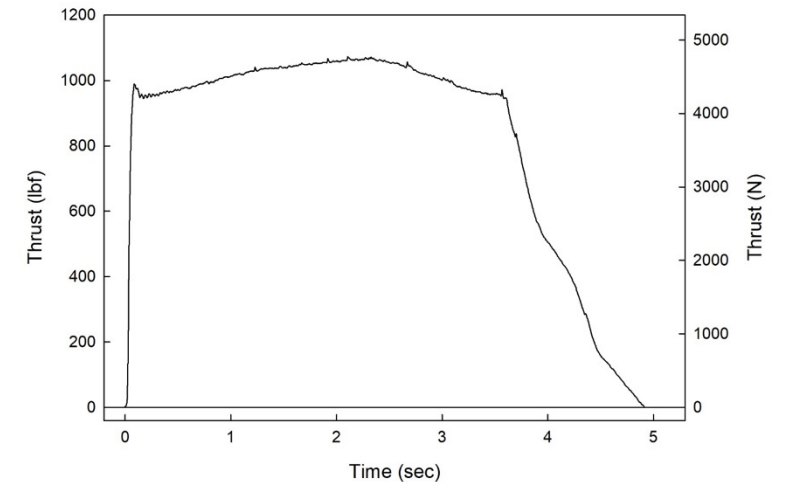


Photo by Bill Bertoldi

# Recap of Last Year's Releases



## • Phaser™ Launch Controller

- Spring-loaded attached safety key
- Large red launch button
- Two-handed operation
- Bright red LED arming light
- Designed for snap-top lithium 9V batteries
- 18 feet of launch cable with flat-jawed copper-coated micro-clips
- Works with Firstfire™ and other brands of rocket motor initiators
- \$26.99 MSRP



# Seasonal Production Update



## • Seasonal Production Plan for 2024

- This plan will include the entire listing of 48 seasonally produced rocket motors
- We will offer these motors to all AeroTech/Quest dealers and/or distributors during a time period beginning Tuesday, January 30, 2024, and ending Friday, February 16, 2024
- Customers will have 2-1/2 weeks to place orders with their dealers for the listed seasonally produced items
- No direct consumer sales of the seasonally produced motors will be accepted
- A 16 to 20 week fulfillment time will apply from receipt of order
- The response to this offering will determine which rocket motors are offered for seasonal production next year

**AEROTECH MID-POWER & HIGH POWER ROCKET PRODUCTS**  
**ORDER FORM**  
 Prices Effective October 14, 2022. Prices and availability Subject to change without notice

**Bill To Address:**  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Day Phone \_\_\_\_\_  
 Credit Card No. \_\_\_\_\_  
 Expiration Date \_\_\_\_\_  
 Name on Card \_\_\_\_\_  
 Date of Order \_\_\_\_\_  
 Your PO No. \_\_\_\_\_

**Ship To Address: (if different from above) This is a  residential  business address**  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_

**IMPORTANT:**  
 The sale of 'G' motors and all model and high power RMS reload kits to persons under 18 years of age is currently prohibited by federal law. Individuals must be 18 years of age to purchase high power hardware. Proof of age (such as a copy of a driver's license) must accompany all orders for 'G' motors and RMS reload kits. The consumer must be a current member in either the National Association of Rocketry or Tripoli Rocketry Association and be a certified Level 2 (L2/L3) or Level 3 (M/M/O) high power user, and 18 years of age or older, to purchase high power reload kits.  
 (\*) Asterisk indicates item can ship domestic U.S. Mail ground surface (Parcel Post). This means no haz fee is incurred when shipping RMS reload kits and single-use motors by surface mail. For more details, please refer to the Resources page located on our website at [www.aerotech-rocketry.com](http://www.aerotech-rocketry.com).  
 RMS™ reload kits and DMS™ rocket motors with over 5 lbs. of propellant and marked as SDL require U.S. State Department Licensing for international orders.  
 AeroTech produces a variety of composite propellant formulations including White Lightning (W), Super White Lightning (WS), Blue Thunder (T), Black Jack (J), Black Max (F), Redline (R), Warp-9 (N), Mojave Green (G), Metalstorm (M), Dark Matter (DM), Super Thunder (ST), New Blue Thunder (NT), Classic (C) & Propellant-X (X).  
 Rocket propellant abbreviations indicated in the brackets are listed after the time delay/coast phase number on single-use and LMS™ rocket motors and mid-power RMS™ reload kits. The propellant abbreviation is listed after the average thrust number on DMS™ rocket motors and high-power RMS™ reload kits.

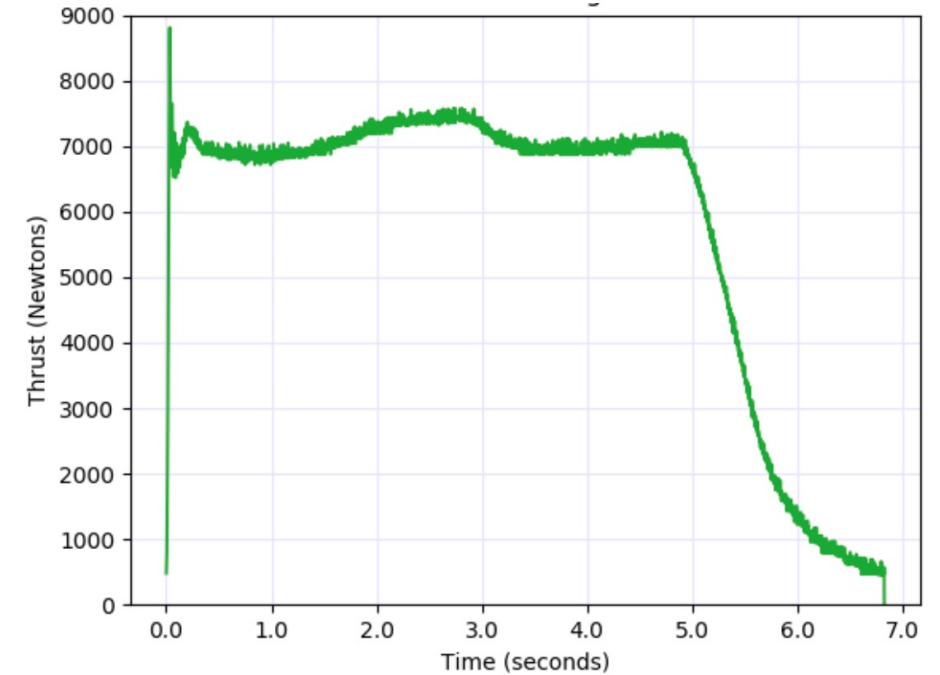
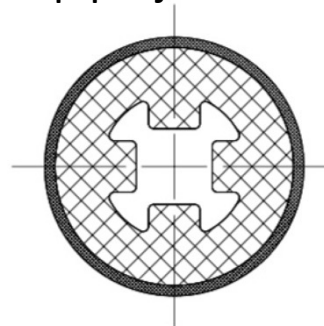
Qty	Part Number	Description	Price Each	Price Total
<b>ENERJET® by AeroTech Standard Line Single-Use Mid-Power Rocket Motors</b>				
<b>24mm x 70mm Single-Use Motors</b>				
<i>(Fits kits designed for black powder 'D' &amp; 'E' motors.)</i>				
	52004	*E20-4W (2-pak)	\$ 33.99	\$ -
	52007	*E20-7W (2-pak)	\$ 33.99	\$ -
	53004	*E30-4T (2-pak)	\$ 33.99	\$ -
	53007	*E30-7T (2-pak)	\$ 33.99	\$ -
	64404	*F44-4W (2-pak)	\$ 38.99	\$ -
	64408	*F44-8W (2-pak)	\$ 38.99	\$ -
<b>24mm x 95mm Single-Use Motors</b>				
<i>(Fits kits designed for black powder 'E' motors.)</i>				
	63004	*F30-4FJ	\$ 25.49	\$ -
	63006	*F30-6FJ	\$ 25.49	\$ -
	63008	*F30-8FJ	\$ 25.49	\$ -
	63204	*F32-4T	\$ 25.49	\$ -
	63206	*F32-6T	\$ 25.49	\$ -
	63208	*F32-8T	\$ 25.49	\$ -
<b>29mm x 83mm Single-Use Motors</b>				
<i>(Fits kits designed for 29mm black powder 'E' &amp; 'F' motors.)</i>				
	66704	*F67-4W (2-pak)	\$ 43.99	\$ -
	66706	*F67-6W (2-pak)	\$ 43.99	\$ -
	66709	*F67-9W (2-pak)	\$ 43.99	\$ -
	77405	G74-4W (2-pak)	\$ 57.99	\$ -
	77406	G74-6W (2-pak)	\$ 57.99	\$ -
	77409	G74-9W (2-pak)	\$ 57.99	\$ -
	62004	*F20-4W (2-pak)	\$ 43.99	\$ -
	62007	*F20-7W (2-pak)	\$ 43.99	\$ -
	62304	*F23-4FJ (2-pak)	\$ 43.99	\$ -
	62307	*F23-7FJ (2-pak)	\$ 43.99	\$ -
	62704	*F27-4R (2-pak)	\$ 43.99	\$ -
	62708	*F27-8R (2-pak)	\$ 43.99	\$ -
	64204	*F42-4T (2-pak)	\$ 43.99	\$ -
	64208	*F42-8T (2-pak)	\$ 43.99	\$ -
<b>29mm x 83mm Classic ENERJET® Single-Use Motors</b>				
	65212	*F52-5C S/U 29mm (2-pak)	\$ 43.99	\$ -
	65214	*F52-8C S/U 29mm (2-pak)	\$ 43.99	\$ -

# New Releases/Info for 2024!



# O6000W-P DMS™ Motor

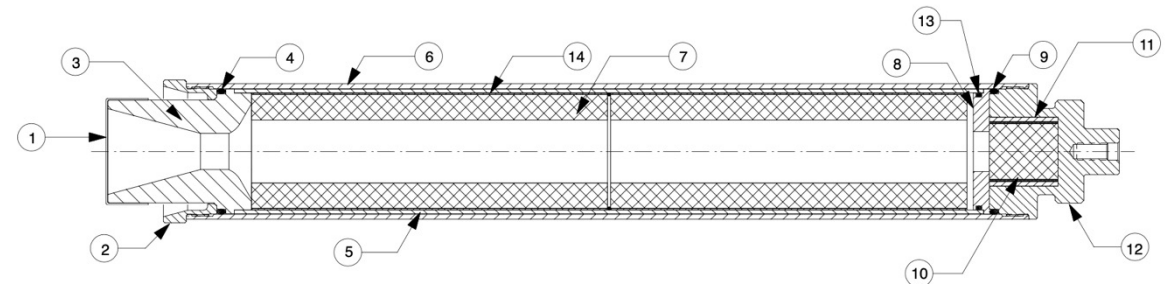
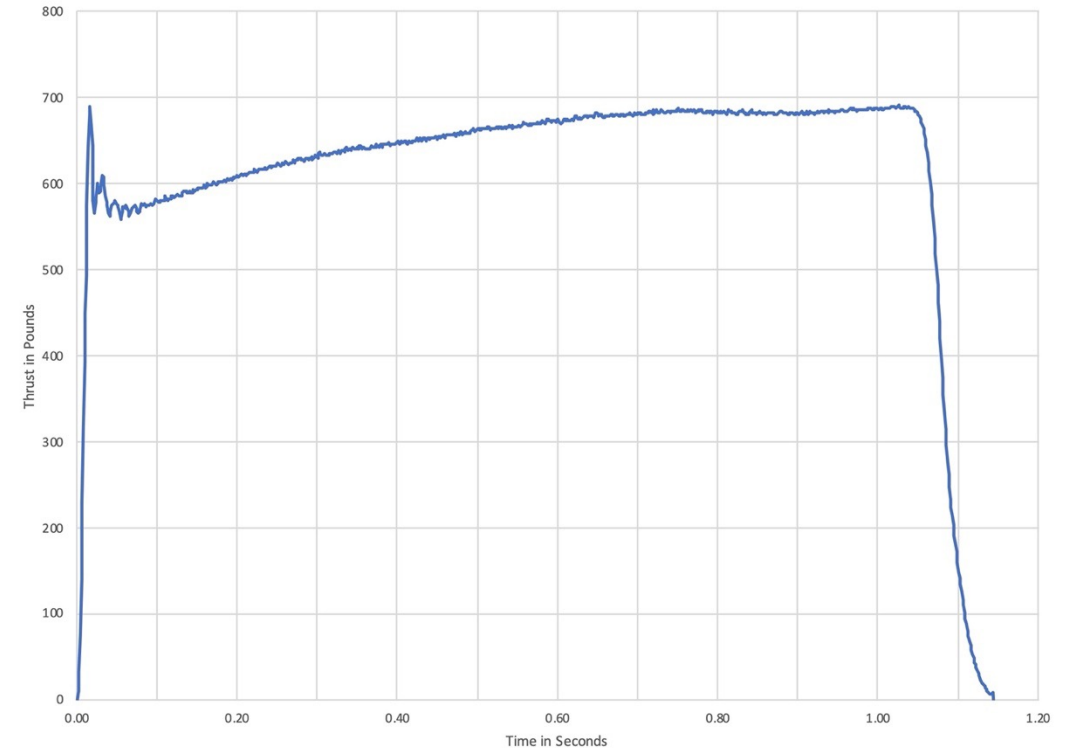
- White Lightning™ propellant single-grain wagon wheel core
- 152mm diameter x 1,120mm long
- 39,620 N-sec total impulse
- 6.77 sec burn time
- 22,000 g propellant weight
- 31,520 g total weight
- Plugged with no smoke
- Ideal for lifting heavy rockets to high altitudes, boosting 2-stage rockets for Karman line attempts, and collegiate group projects
- NAR certified, not for consumer sale in California
- \$9,999.99 MSRP
- Availability and shipping to be announced



# L2795ST-P 75mm RMS Reload



- You witnessed this motor tested during the tour!
- Super Thunder™ propellant core burner
- Designed for RMS-75/3840 hardware
- 3,130 N-sec total impulse
- 1.12 sec burn time
- 3,098 N peak thrust
- 1,418 g propellant weight
- 3,435 g total weight
- Great for boosters and heavy single-stage rockets for flights on small fields
- TRA certification & CSFM approval pending
- \$324.99 MSRP
- Availability and shipping to be announced



# iLaunch Wireless Launch Controller



- Your cell phone becomes a launch controller!
- Range up to 150 feet
- Small launch box attaches to your launch pad
- Six (6) safety interlock systems including a removeable key switch
- Two-handed, two-button operation
- Automatic 5-second countdown is reset if either hand is removed from a button
- \$79.99 MSRP introductory price
- Availability anticipated in mid-Spring





# Classic Enerjet Nike-Ram™



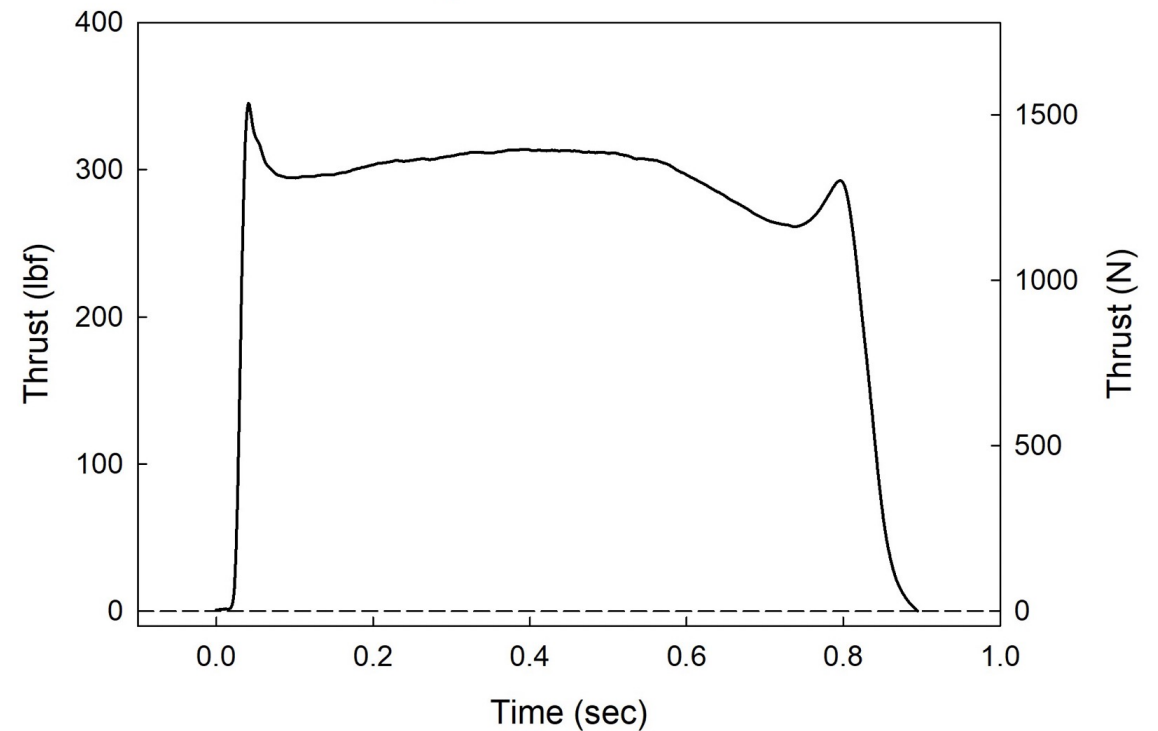
- Re-engineered by Enerjet historian Bob Sanford
- 35mm/1.38" diameter
- 61cm/24" long
- 113g/4.0oz empty weight
- Flies on E24C, F52C & F67C Classic Enerjets and other AeroTech Motors
- Flights up to a mile high!
- Available Spring 2024
- \$29.99 MSRP



# J1265ST-14A 54mm DMS™ Motor



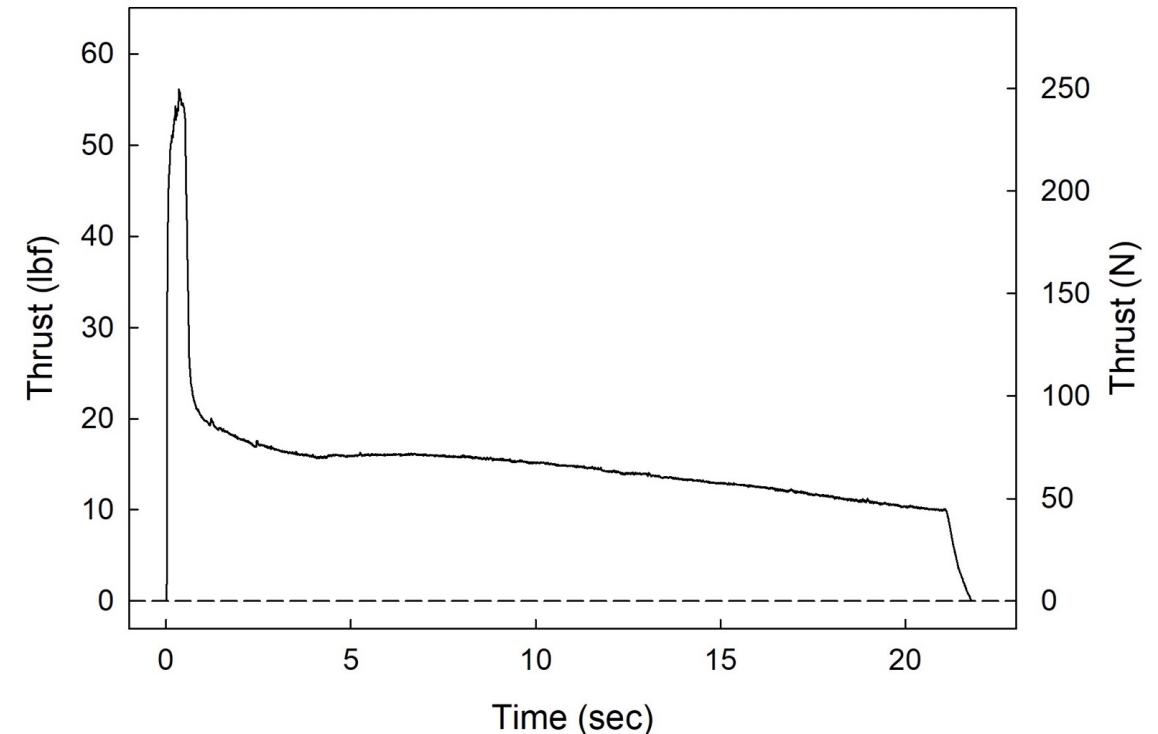
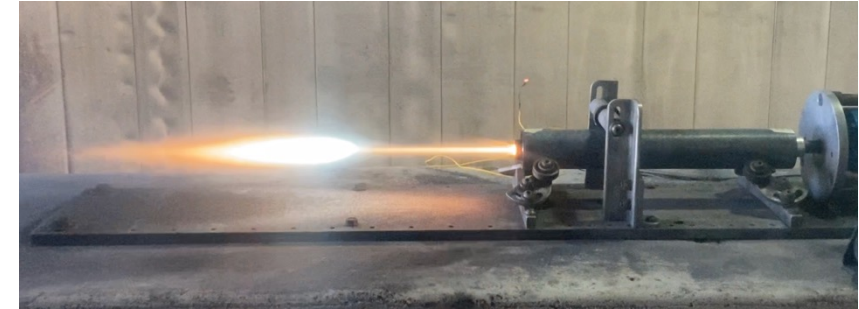
- Super Thunder™ propellant core burner
- 54mm diameter x 358mm long
- 1,072 N-sec total impulse
- 0.85 sec burn time
- 507 g propellant weight
- 1,095 g total weight
- 14 second delay (adjustable with DMS delay tool)
- Great for boosters and heavy single-stage rockets for flights on small fields
- TRA certified & CSFM approved
- Availability and shipping to be announced



# K62N-P 54mm DMS™ Motor



- Warp-9™ propellant core-modified endburner
- 54mm diameter x 358mm long
- 1,439 N-sec total impulse
- 23.1 sec burn time
- 831 g propellant weight
- 1,277 g total weight
- Plugged only, must use electronic recovery system deployment
- Great for upper stages and lightweight single-stage rockets for flights to high altitudes
- TRA certified & CSFM approved
- Availability and shipping to be announced

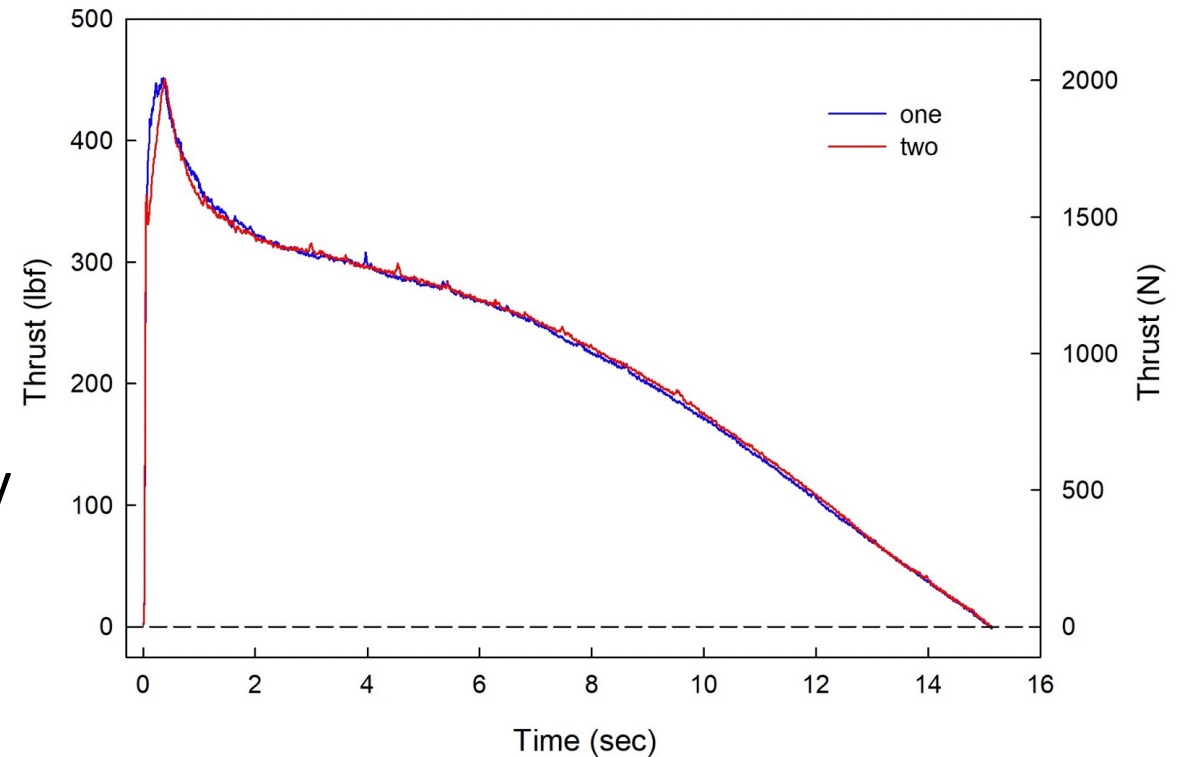


# N1100W 98mm DMS™ Motor



- DMS analog of the N1000W RMS reload
- 98mm diameter x 1,019mm long
- White Lightning™ propellant
- 14,418 N-sec total impulse
- 14.4 sec burn time
- 7,295 g propellant weight
- 12,292 g total weight
- Plugged only, must use electronic recovery system deployment
- TRA certified, not for consumer sale in CA
- Availability and shipping to be announced

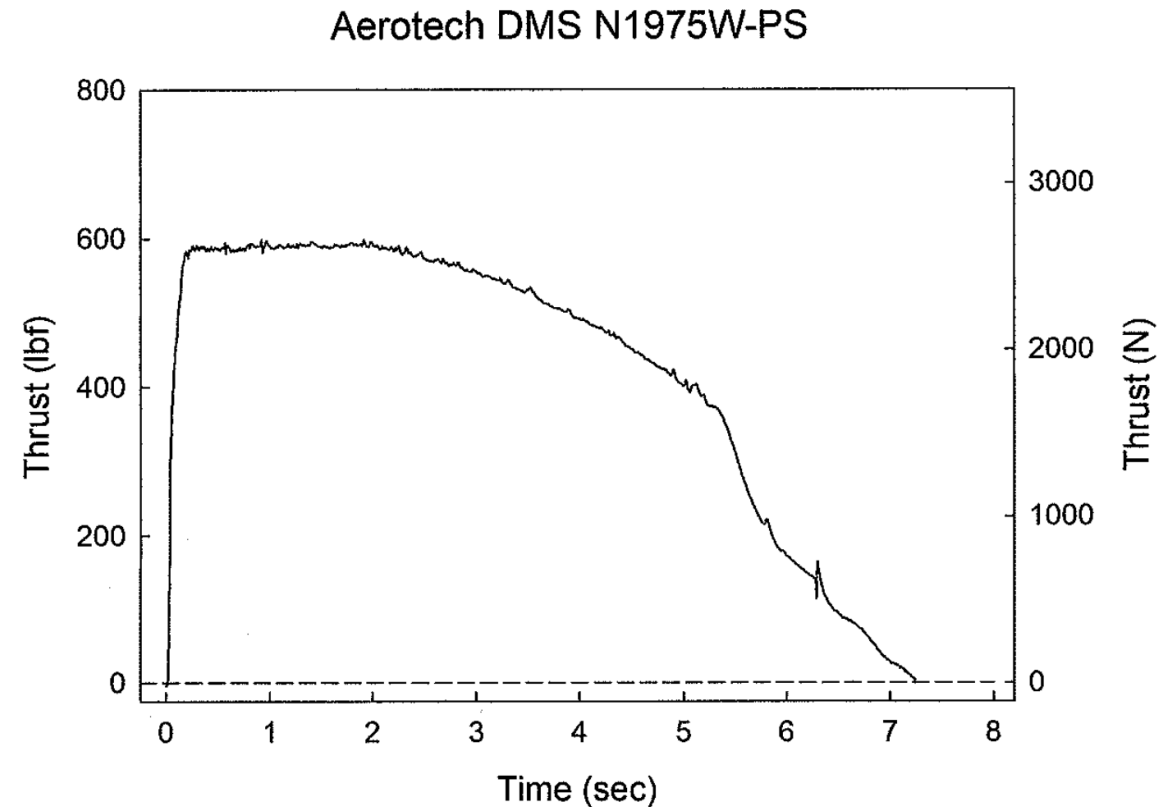
Aerotech N1100W-P DMS



# N1975W 98mm DMS™ Motor



- DMS analog of the N2000W RMS reload
- 98mm diameter x 1,019mm long
- White Lightning™ propellant
- 13,893 N-sec total impulse
- 7.0 sec burn time
- 7,676 g propellant weight
- 12,208 g total weight
- Plugged only, must use electronic recovery system deployment
- TRA certified, not for consumer sale in CA
- Availability and shipping to be announced



# And of Course...

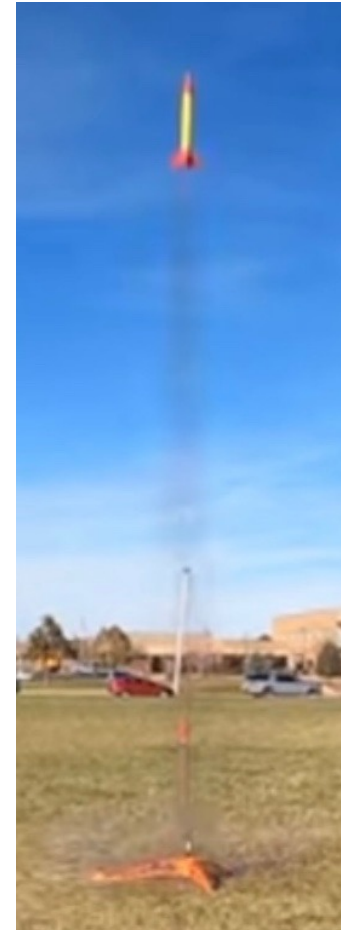


# There's One More Thing...



# 18mm B14T Q-Jet™

- Blue Thunder™ propellant
- Phenolic nozzle
- 4.8 N-sec total impulse
- 0.4 sec burn time
- 2.3 g propellant weight
- 17.8 g total weight for -7 sec delay
- 3, 5 & 7 second delays
- TRA certification pending
- \$11.99 MSRP for a complete 2-pack that includes FirstFire Micro Initiators, recovery wadding and Q-Pics
- Spring 2024 availability



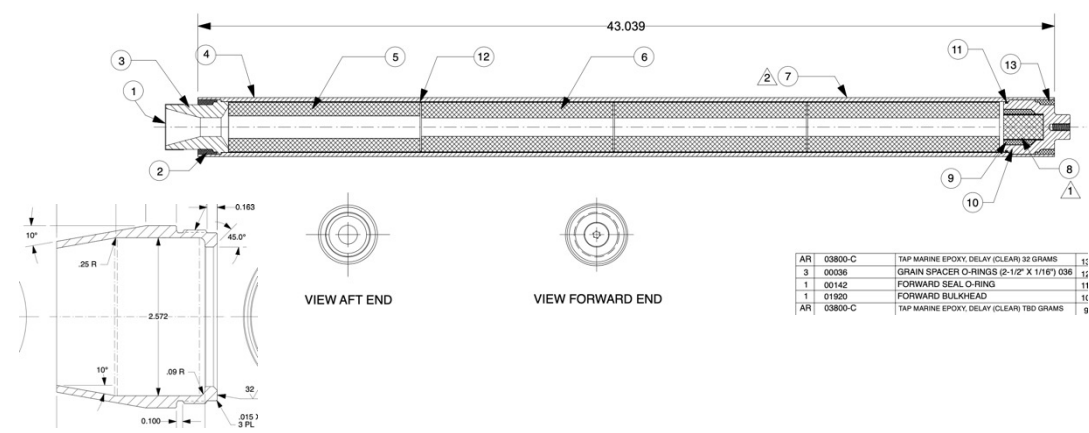
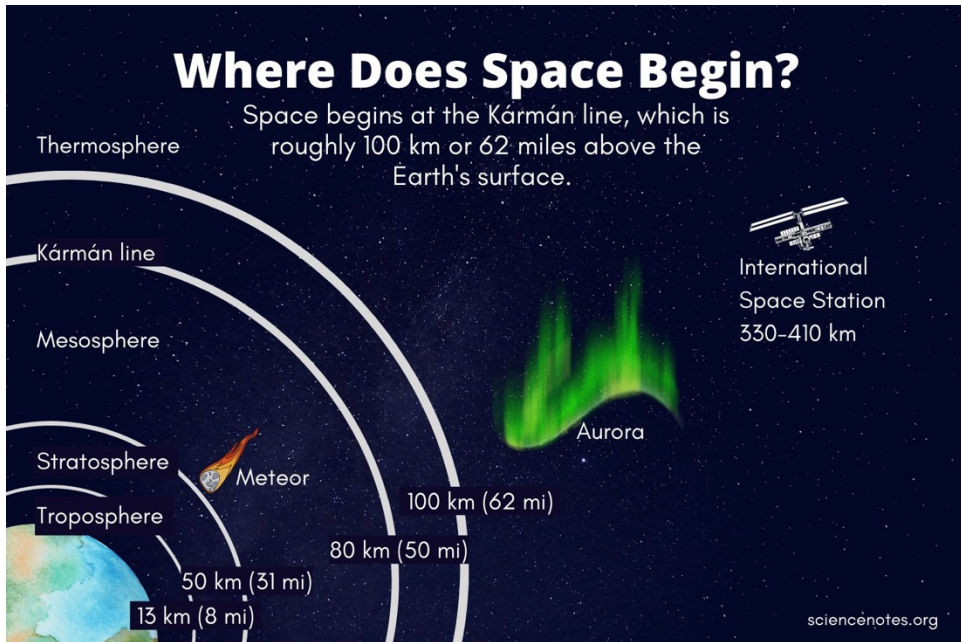


# And Yet Another Thing...



# The \$10,000+ AeroTech Space Challenge

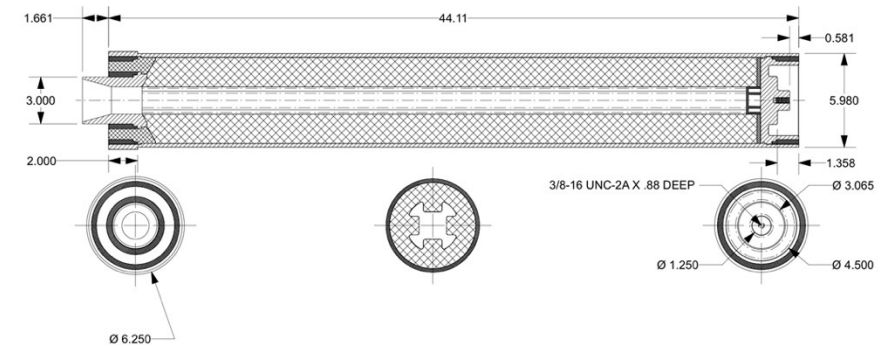
- National contest to be flown during ARLISS/XPRS or BALLS in the Black Rock Desert
- Goal is to be the first person to fly 100 km (62 miles) above ground level using certified AeroTech high-power motors totaling no more than 40,960 N-sec
- **\$10,000 cash prize from AeroTech and more \$\$ from additional sponsors!**
- Two new nearly-full 'M'-class 75mm RMS & DMS motors to be designed and certified for upper stage use with the O5500X as a booster
- New standard and tailcone "flush" aft 75mm RMS closures planned for release soon



# NARCON 2024 Manufacturers' Forum Summary



- Limited quantity shipping was big news for the hobby!
- Our new facility is operational
- Museum and museum store opening soon
- We continue to design and produce new and innovative model and high-power composite propellant rocket motors, from the 18mm B14T to the 152mm O6000W!
- Nike-Ram and other Classic Enerjet kits planned for 2024
- Even more great products planned for later in the year!
- I want to thank Dane Boles, Karl Baumann, Jeremy Nelson, Kyle Anderson and the entire AeroTech/Quest/RCS team for helping to bring these new products to reality



# Questions?



Thank you for your participation and attention, and for supporting us these 42 years!

