

## Sample Launch Procedure

- At beginning of the launch day, call Joshua Approach and say: "This is the Friends of Amateur Rocketry near Koehn Dry Lake. We are starting launch operations from surface to X-feet AGL or Flight Level XXX."
- If someone else is to call Joshua Approach, make sure that they have notified Joshua Approach before starting launch operations.
- Make sure the motor is assembled and installed properly.
- Make sure that flame-proof wading is used for the parachute.
- Make sure the upper stage and recovery are not armed.
- Make sure the igniter is not inserted.
- Verify ignition controller is safed with key removed.
- Carry rocket to launch rail.
- Slide rocket onto launch rail.
- Raise and lock the launch rail to no more than 20° from vertical.
- Send personnel to blockhouse or viewing bunker for experimental motors, or safe distance for commercial motors.
- Insert igniter.
- Arm recovery system and upper stage.
- Verify ignition box is in safe state with key inserted.
- Connect igniter to ignition box and make sure there is a good connection.
- Arm the ignition box and remove arming key.
- Retreat to blockhouse or viewing bunker for experimental motors, or safe distance for commercial motors.
- Insert arming key into ignition hand controller and arm.
- Verify the igniter has continuity.
- Make sure spectators and camera person are under cover before starting countdown.
- Verify wind speed is less than 20-MPH.
- Verify road is clear of cars.
- Verify airspace is clear of aircraft.
- Announce starting launch countdown to spectators.
- Perform a 5-count countdown.
- At zero, command ignition controller to fire.
- Keep personnel in blockhouse/viewing bunkers until the rocket has impacted the ground or is safely on a parachute.
- Turn ignition controller to safe.
- Call all clear.
- At the end of launch day, call Joshua Approach and say: "This is the Friends of Amateur Rocketry near Koehn Dry Lake. We are finished with launch operations for the day."

# Rocket Pyrotechnic Operators Log

Name: \_\_\_\_\_

License Number: \_\_\_\_\_

Pyrotechnic Operator Class: \_\_\_\_\_

Log Start Date: \_\_\_\_\_

Log End Date: \_\_\_\_\_

Rocket Motor Information				Bunker Required			
Class	Impulse Range	Impulse Limit	Category	Spectator Distance (ft)	1 <sup>st</sup> Row 122-ft	2 <sup>nd</sup> Row 220-ft	3 <sup>rd</sup> Row 270-ft
Model Rocket	1/8A	0.3125	Micro	30			
	1/4A	0.625	Low Power	30			
	1/2A	1.25		30			
	A	2.5		30			
	B	5		30			
	C	10		30			
	D	20		30			
	E	40	Mid Power	30			
	F	80		30			
	G	160		30			
High Power	H	320	Level 1	30			
	I	640		150	X		
	J	1,280	Level 2	150	X		
	K	2,560		200	X		
	L	5,120		300	X	X	X
	M	10,240	Level 3	500	X	X	X
	N	20,480		1,000	X	X	X
	O	40,960		1,200	X	X	X

### Telephone Numbers

Emergency for Injury or Fire: 911

Joshua Approach: (661) 277-3843

Kern County Sheriff (Non-Emergencies): (661) 824-7130

## Sample Static Firing Procedure

- Mount static stand.
- Verify that static stand is solidly mounted and can't move.
- Make sure the motor is assembled properly.
- Make sure the igniter is not inserted into the motor.
- Verify ignition controller is safed and key removed.
- Carry motor or rocket to static stand and mount to static stand.
- Verify motor or rocket is rigidly attached to static stand and cannot move.
- Send personnel to blockhouse or viewing bunker for experimental motors, or safe distance for commercial motors.
- Insert igniter into motor.
- Verify ignition box is in safe state with arming key inserted.
- Connect igniter to ignition box and make sure there is a good connection.
- Arm the ignition box and remove arming key.
- Retreat to blockhouse or viewing bunker for experimental motors, or safe distance for commercial motors.
- Verify road is clear of cars.
- Insert arming key into ignition controller and arm.
- Verify the igniter has continuity.
- Make sure spectators and camera person are under cover before starting countdown.
- Verify road is clear of cars.
- Announce starting static firing countdown to spectators.
- Start data logging.
- Perform a 5-count countdown.
- At zero, command ignition controller to fire.
- Keep personnel in blockhouse/viewing bunkers until the rocket or rocket motor has finished firing.
- Stop data logging and save data.
- Turn ignition controller to safe.
- Call all clear.

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Pyro-Op: \_\_\_\_\_

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Launcher/Stand: \_\_\_\_\_

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|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |
-

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Pyro-Op: \_\_\_\_\_

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| <u>Commercial</u>                    | <u>Experimental</u>                        |
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| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
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Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
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| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_

<input type="checkbox"/> Launch	<input type="checkbox"/> Misfire	<input type="checkbox"/> CATO
<input type="checkbox"/> Static Fire	<input type="checkbox"/> Successful Firing	<input type="checkbox"/> Successful Recovery
<u>Commercial</u>	<u>Experimental</u>	<u>Experimental Propellant</u>
<input type="checkbox"/> High-Power	<input type="checkbox"/> Solid	Fuel: _____
<input type="checkbox"/> Model	<input type="checkbox"/> Hybrid	Oxidizer: _____
	<input type="checkbox"/> Liquid	

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_

<input type="checkbox"/> Launch	<input type="checkbox"/> Misfire	<input type="checkbox"/> CATO
<input type="checkbox"/> Static Fire	<input type="checkbox"/> Successful Firing	<input type="checkbox"/> Successful Recovery
<u>Commercial</u>	<u>Experimental</u>	<u>Experimental Propellant</u>
<input type="checkbox"/> High-Power	<input type="checkbox"/> Solid	Fuel: _____
<input type="checkbox"/> Model	<input type="checkbox"/> Hybrid	Oxidizer: _____
	<input type="checkbox"/> Liquid	

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_

<input type="checkbox"/> Launch	<input type="checkbox"/> Misfire	<input type="checkbox"/> CATO
<input type="checkbox"/> Static Fire	<input type="checkbox"/> Successful Firing	<input type="checkbox"/> Successful Recovery
<u>Commercial</u>	<u>Experimental</u>	<u>Experimental Propellant</u>
<input type="checkbox"/> High-Power	<input type="checkbox"/> Solid	Fuel: _____
<input type="checkbox"/> Model	<input type="checkbox"/> Hybrid	Oxidizer: _____
	<input type="checkbox"/> Liquid	

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_

<input type="checkbox"/> Launch	<input type="checkbox"/> Misfire	<input type="checkbox"/> CATO
<input type="checkbox"/> Static Fire	<input type="checkbox"/> Successful Firing	<input type="checkbox"/> Successful Recovery
<u>Commercial</u>	<u>Experimental</u>	<u>Experimental Propellant</u>
<input type="checkbox"/> High-Power	<input type="checkbox"/> Solid	Fuel: _____
<input type="checkbox"/> Model	<input type="checkbox"/> Hybrid	Oxidizer: _____
	<input type="checkbox"/> Liquid	

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_

<input type="checkbox"/> Launch	<input type="checkbox"/> Misfire	<input type="checkbox"/> CATO
<input type="checkbox"/> Static Fire	<input type="checkbox"/> Successful Firing	<input type="checkbox"/> Successful Recovery
<u>Commercial</u>	<u>Experimental</u>	<u>Experimental Propellant</u>
<input type="checkbox"/> High-Power	<input type="checkbox"/> Solid	Fuel: _____
<input type="checkbox"/> Model	<input type="checkbox"/> Hybrid	Oxidizer: _____
	<input type="checkbox"/> Liquid	

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

---

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |
-

---

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

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Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
| Oxidizer: _____                              |

---

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
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Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> CATO                |
| <input type="checkbox"/> Successful Recovery |
| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
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|--|
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| <u>Experimental Propellant</u>               |
| Fuel: _____                                  |
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Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- |  |
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| Fuel: _____                                  |
| Oxidizer: _____                              |
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Location: \_\_\_\_\_

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| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_
- 

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_
- 

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_
- 

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_
- 

Location: \_\_\_\_\_

Pyro-Op: \_\_\_\_\_

- |                                      |  |
|--------------------------------------|--|
| <input type="checkbox"/> Launch      | <input type="checkbox"/> Misfire           |
| <input type="checkbox"/> Static Fire | <input type="checkbox"/> Successful Firing |
| <u>Commercial</u>                    | <u>Experimental</u>                        |
| <input type="checkbox"/> High-Power  | <input type="checkbox"/> Solid             |
| <input type="checkbox"/> Model       | <input type="checkbox"/> Hybrid            |
|                                      | <input type="checkbox"/> Liquid            |

Date: \_\_\_\_\_

Launcher/Stand: \_\_\_\_\_

- CATO
- Successful Recovery
- Experimental Propellant
- Fuel: \_\_\_\_\_
- Oxidizer: \_\_\_\_\_
-

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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Location: \_\_\_\_\_ Date: \_\_\_\_\_  
Pyro-Op: \_\_\_\_\_ Launcher/Stand: \_\_\_\_\_  
 Launch  Misfire  CATO  
 Static Fire  Successful Firing  Successful Recovery  
Commercial Experimental Experimental Propellant  
 High-Power  Solid Fuel: \_\_\_\_\_  
 Model  Hybrid Oxidizer: \_\_\_\_\_  
 Liquid

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