

September 2008 Vol 19.2

Western Pyrotechnics Association Newsletter



Rita

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BRAND

WPA Newsletter, Volume 19, Issue 2

September, 2008
Volume 19, Issue 2

Western Pyrotechnics Association

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From Your Editor By Tom Calderwood, V.P. Publications

Thank you for taking time to read this! As board members, we are required to write some snippets for the newsletter. This is harder than it sounds! You really do need to figure out who is reading the posts, but there's no good way to figure it out. I did find one way—misspell someone's name or a common word. (Like "Editor" in the title here!). Before you know it, someone posts it to the digest, then others go to read it, and before you know it your mistake has gone 'viral'. And those darned spell checkers sometimes lies to us. I have no idea how authors do it!

I want to plant something in your head. What would you say to an electronic copy of the newsletter instead of a printed one? It would be posted (under password protection) on the WPA web site, and you would download it. It would be available in PDF format. This is an enticing prospect since it would SIGNIFICANTLY reduce costs to the club. It would be an all-or-nothing prospect. The entire club bears the burden of the newsletter. It only seems fair that the entire club would realize the benefit. It's hard enough to maintain the lists we have now. Creating yet another list of who is/isn't getting a printed copy and who does/doesn't pay for the printing costs is not something we want to handle right now. This was discussed and voted down at a previous WWB General Meeting. You need to be at the next one to discuss it and be prepared for another proposal!

We are also bringing in another part to the newsletter—color. Because of costs, I need to maximize the use of B/W vs color. Let me know what you think! Expand it? Toss it? Email me at: tom@westernpyro.org.

Lastly, I would just like to say here that I'm still in shock over Rita's passing. I dedicated the cover to her as an acknowledgement to her *many* hours of work for the WPA. It's hard to grasp something like this. To Don and all the Oesterle family: No words, hugs. We love y'all.

Important Notice:

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What's Happening!

By Pete Wood, WPA President 2008

I want to use this column as a tool to let the membership know of recent and future happenings, events, policy changes and implementations. We'll see if it helps in anyway.

My hope is to keep all of you informed and to answer questions, posed by you the members, to the BOD's.

The Passing of the Torch

As most of you now know, we lost our Secretary / Registration Chair, Rita Oesterle recently, to a sudden and unexpected malady. Rita was instrumental in the Club, not only from a work standpoint, but her love of fireworks, the WPA and all of it's members.

Rita will be missed by all, including the remaining BOD's. She would want us to move forward, and so that's what we intend to do. Rita, you will be missed, but never forgotten! May you rest in peace.

As of this writing, Ann Huffman, our treasurer, has taken over the secretarial duties as well and Kelly Goebel has been appointed to an "at large" position on the Board. This provides the Board with a fifth member to vote on items and avoid a tie. More discussion will come about as to keeping the Secretary position or combining Secretary with the Treasurer position at the upcoming election at WWB. . If the latter were to happen, then a new fifth position will be up for discussion. The position of VP comes up for re-election as well, so if you ever wondered about getting involved and being a part of the change making, now's your chance. Stay tuned!

The Use of WPA Liability Insurance for Area Events

Recently, the BOD's held a teleconference to discuss this past WWB and to discuss in general, the future of the WPA. A question that was directed to me by a member was this – "Is a WPA area meeting covered (or can it be covered) under the existing WPA liability policy.

The answer (after discussion) is simply "No".

The logistics, requirements for infrastructure, policy and safety guidelines, registration etc., etc make it unfeasible. We have to look at the overall impact of any decision we make and in the end, the well being of the club and membership, take precedence. Insurance rates would increase, given that we would show a marked increase in the request for certificates of insurance, for such activities or events. Sorry guys and gals – can't do it.

New Requirement for the Purchase of Class B (1.3G) Product at Events

I ask those of you who will be purchasing class B (1.3G) product again or for the first time at this coming DO IT 2008, to read this. It applies to ALL who will be purchasing this product under the WPA BATFE license.

Starting in the beginning days of the upcoming DO IT, when you place an order for 1.3G product, you will be contacted and asked to dedicate one hour (or a shift of a determined time) of your time to bunker duty. This way, those who are directly affected by needing the use of the magazine, will help with some of the duties associated with it. This will insure that no one person will have to dedicate his or her entire event to this task, as has been done before. Let me tell you, it's a heck of a way to spend 4 days in Havasu!

So, keep your eye on the WPA mailing list (if you're not on it, why not? – contact Kelly Goebel at – kpgoebel@gmail.com for details to subscribe), the WPA website and upcoming newsletters for further details. No, not right now! Give Kief some time to fully implement this, but the word will be put out once it has. Stay tuned.

Upcoming Events

I know I already listed the upcoming events in my other article, but in lieu of those of you reading this, going and getting the dates tattooed on your arm, or etched in your rear window, I thought I'd list them one more time.

DO IT 2008 is on October 9-11th, in beautiful Lake Havasu City AZ. Keep an eye on the WPA website for further details. Yours truly, will once again be the Chair of this event, with

Bill "Flaming Bike O' Death" McGregor as my Co-Chair. Remember what you missed (or heard you did) last year? Plan now to NOT miss out on this one. Anyone wanting to reaffirm their desire to be on the DO IT Staff for this coming October, feel free to let me know, so I can put together the list. It's never too early! My contact info is – skyfirepro@aol.com or pete@westernpyro.org, or e-mail my co-chair, Bill McGregor at - pyro.nutt@verizon.net

Last, but not least is WWB 20 !!! Our twentieth year to celebrate, and it shows promise of being one to remember! Kief Adler is Chairman of the event (the "Slack is Back! "). For further info or questions, contact Kief @ - kief@sbcglobal.net, or the event co-chair, Kelly Goebel, at - kpgoebel@gmail.com

Well, that's about it for now. Keep your eyes on the website, the newsletter or the list for recaps of this and further updates. The future is in ALL of our hands.

Support fireworks! Our survival is in all of our hands.

Pete Wood
WPA President 2008

The Treasurer Speaks

By Ann Huffman

With a hint of smoke in the air, cooling of the nights and those wonderful Sunsets, it must be time for DO It once again. Yes Folks..Set your calendars and your clocks for Oct 9th thru the 11th. Come join us in the fun ahead of the crowds on Wed, Oct 8th for set up and stay to see that wonderful and ever changing Burn Pile on Sunday the 12th. Also known as the clean up day which always holds unhidden treasures of fun and some extra cash in your pocket. Get your forms in early and watch out for those cut off dates. Remember the early bird always gets the best shell. Want to be part of or make the best Armageddon in 2008? Want a humdinger of a Afterglow? Note the boxes on the bottom of your registration forms just before you add your grand total for the event. Throw in some extra \$\$\$ dollars there and join in some great fun.

I would like to take this time to update all our members in regards to the clubs records and some forgotten procedures. This last summer I have spent many long hours working on the clubs books. We are currently now like most of us have had to come to use Vista instead of XP. The clubs books are current with the Vista programs. Also for the added protection of our clubs records, we are currently using the QuickBooks 2008 revision, with a back up to their main server. So in layman's terms, should anything happen to a computer, etc. All records will be safe on a main server used with QuickBooks and any of the Board will have access to these.

In regards to NSF checks: I know this is a ugly word but it sometimes happens. As in the past and still in the present, should the club receive a NSF check there is and will still be a 25.00 charge added to the amount you will owe the club. The rule is a NSF check must be made good only with a money order, bank certified check or cash for the full amount

plus the \$25.00 fee. This needs to be paid to WPA within ten days of notice to you. Failure to do so, you could be turned over to a collection agency which the WPA has been using for the past two years. All outstanding fees must be paid in full before your membership can be renewed or any events attended.

On-line forms: These will soon be up for all to use again this year. We have had a wonderful response from these forms and the use of them works very well. Please give them a try. No worries about lost checks in the mail, NSF checks, etc. At anytime should you have any questions about the forms or how to use them, please contact us and I know someone will help you out. They are very easy to use and very safe. Membership forms are always available on line. Renew now before the holidays for 2009 and while there try out the forms not only for Do It 2008 but you can also sign up for Winterblast 2009 at the end of Oct. What a wonderful Halloween treat for yourself and family.


I would like to take this time and Thank Rob Folek for chairing another wonderful Pyro Playa event. I am looking forward to having the pleasure to work with Rob next year as his registration chair for this event. More to follow in the months ahead.

Thank you to the all the WPA members and to the WPA Board. You all are what makes this our Club.

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From the Vice President

By Kief Adler

Shooting class B at WPA Events

The Board has approved new rules for those purchasing, and shooting, class B shells at club events. Beginning with Do It, anyone placing an order for B product will be required to work a shift at the magazine. The length of the shift will depend upon the number of people making purchases but should be no more than one hour. Shifts will be randomly assigned and the list will be posted at the event. If we have your email address, you will be given your assigned day and time prior to the event. Should you fail to show up for your assigned shift, you will forfeit your right to purchase and shoot class B at future events. The Board feels that this will help to eliminate delays in getting product in and out of the magazine and will also put the burden of manning the mags on the people who use them.

Cleanup at WPA Events

A new cleanup fee of \$15 per person will be in effect for Do It and all future WPA events. As the membership expressed its desire to offset an individual's absence by paying an increased fee, cleanup fees will be dispersed as follows:

- 1) 1/3 of the total collected will be used to hire temporary workers to help with cleanup.
- 2) The remaining 2/3's will be divided among those WPA members who have paid their cleanup fee AND stay until cleanup is complete. Cleanup is deemed complete when the burn pile is lit! Those leaving early forfeit their right to a portion of the pot and those wishing to donate their share back to the club can still do so. Shares donated back to the club will reduce the amount paid to the rest. For example, if \$3000 is collected for cleanup, \$1000 will be used for hiring temporary workers. If there are 40 members who stay for the entire cleanup, each will be entitled to a \$50 share of the pot. If 10 of these members choose to donate their shares back to the club, \$500 will go to the club and the remaining \$1500 will be paid out to the remaining members.
- 3) In the event that only part of the 1/3 used to hire temporary workers is used for this purpose, the remaining funds will be added to the total divided by the members staying for cleanup.

Classified Ads

Wanted: PyroPak Firing Systems.
Bill Daly, 661-949-1290 www.321fire.net

Finishing Some Un-finished Business!

By Kief Adler

(The following was inadvertently left out of the previous newsletter. Our corporate members and sponsors are a VERY important part of our club, and I wanted to be sure they were recognized.—ed.)

The WPA wishes to thank the following for their dedication to the club and it's members:

Our Corporate Members:

Ace Pyro LLC
Combined Specialties
D & T Imports
Fireworks America
Flying Phoenix
Halatron Systems LLC
Hollywood Pyrotechnic
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Fireworks & Stage FX America, Inc., Joe Bartolotta
Premier Pyrotechnics Inc., Matt Sutcliffe
Pyro Novelties, Katherine Guccione
Wolverine West, Rod Hash and Andy Mihalyi

Winterblast 19 Afterglow Donors:

Fireworks America
Pyro Spectaculars
John Riccio

Also many thanks to those who gave generously at this years auction!

THANK YOU!

PGI– Western Style!!!

By Greg Dandurand

Arriving at Cam-plex in Gillette, Wyoming, I was already into day nine of an eighteen-day road trip. The nice thing was, it was only an hour and a half from Sturgis, SD, so I was nice and relaxed when I arrived. That didn't last long.

One of the main problems at this year's convention was that none of the display operators wanted to drive to Gillette for what the PGI was willing to cover for costs. Understandable, due to the high cost of diesel. However, one display company, ACE Pyro, of Michigan, brought out two semis and shot six shows over the length of the convention, including the Grand Public Display. The owner is a friend of mine, so I was conscripted to help for the shows. We all joked about the comparisons to slavery, but realized that slaves got room, board, and transportation. We were only getting feed. The shock collars allowed more freedom, but were a more potent reminder if we strayed too far. I'm just kidding, it was a lot of hard work, but the shows were awesome and went off virtually without a hitch.

Cam-plex is an outstanding facility. Good camping setups, with nice shower facilities. We had ten spots rented together, with about half being used for parking and the field kitchen. Karl had brought his eight-burner propane grill with the two bottles. We had everything we needed for our cooking comfort, including the kitchen sink. We took a sink and mounted it to a two by four frame, running the drain hose down one of the RV sewer connectors. It worked out surprisingly well, and it was almost a shame to trash the frame at the end of the week. We did keep the sink. I set my tent up next to one of the RVs, so it was easy to get to after finishing up for the day and not too far from the showers. We did get the wind and rain, not bad enough to cancel any of our shows, but enough of a pain to make it interesting. The guys in the ten next to me got flooded out in one of the downpours, but I managed to stay dry all week. I know it doesn't sound like much, but coming home to a dry tent and sleeping bag after a hard day in the field can make or break your day. The folks running Cam-plex went out of their way to help us with anything we needed, and I hope we are able to return in the future.

I know it is a drive for a most folks, and the slow economy and price of gas didn't help matters much. But PGI this year almost had a Western Winter Blast feel to it, with things seeming to be a little mellower. That could also be due to the large amount of WPA folks that I saw there. I was able to chat with a few, and I do apologize if I always seemed to be in a hurry, but I was. I didn't go to any seminars and any time I spent in manufacturing was just to borrow some supplies for a project in the field.

The field facilities were outstanding and being the only operator did have its advantages in that we set all the guns on Friday/Saturday, and they stayed where they were for the whole week. Also, since we did all the shows, we weren't tripping over each other and were able to coordinate a lot of tasks so that we weren't doing double the work. They

have the Junior Rodeo Finals there every few years and that was evident by the amount of horse stalls and barns. I could only imagine them being full of horses and was glad that none were on site for this event. Horses and fireworks go together like a baby nursery at the crocodile farm. The backhoe and skid steer loader (I'd say Bobcat, but that is a registered trademark of the Ingersoll-Rand company and this was a Caterpillar) made any dirt moving or gun planting a breeze and it is always nice to have heavy equipment on site.

It was also nice when we went to plant the twenty-four inch gun. Yes, a twenty-four. Not one, but two. ACE Pyro had one for the Grand Public Display, and another was built on site in manufacturing. It was shot after the Grand Public Display and looked great. The one that was in the display was the best mine I ever saw and we will leave it at that. It also had a problem in that the pass-fire tube disappeared after it was taped on the handy-dandy taping machine. That required a bit of unorthodox surgery in the middle of a field away from everyone else. Suffice to say, it went all right, as I am still around to write this, but we were moving reeeaaalllll slow as we made a new pass-fire tube. I don't know if this problem had anything to do with the undesired effect of the shell (mine), but I don't have enough experience shell building to critique other's work.

The volunteers made this event happen! I know the same people do the same work every year, but it is nice to be thanked. So thanks everyone, y'all did a great job! And if you didn't volunteer to help with Security, Safety, Fire/Med, or on one of the shows, you can't say that you've experienced the PGI. I know I might have inadvertently forgotten some people, but you know who you are.

All in all, a great event this year. I look forward to seeing you at Do-It and Winter Blast, and I hope WPA folks can make it out to Mason City, Iowa, next year for PGI 2009.

- Greg Dandurand

Lumina, Inc. - Fireworks Display Company
P.O. Box 47146
Chicago, Illinois 60647
(312) 829-8970
(312) 829-9740 fax
Luminaroc@aol.com
Contact: Rocco Saliano

WPA BOD Minutes March 27, 2008

Call to Order 7:05 pm

Conference Call attendees: Pete Wood, Tom Calderwood, Rita Oesterle, Kief Adler, and Ann Huffman.

1. Minutes from the General Meeting will be submitted for approval at the next General Meeting at Winterblast 2009
2. Secretary's report by Rita Oesterle
WPA membership breakdown as of March 27, 2008
Life Members 16
Total membership is 640.
WPA has 241 members who have not renewed from 2007
3. Treasurer's report by Ann Huffman
Winterblast 2008 (as of March 2008)
Expenses \$83,092.48
Income \$111,116.03
Auction brought in \$4,251.50
Bank Balance as of March 2008 \$106,459.62
4. Publications report by Tom Calderwood
Next new letter issue due out the end of April is Tom's best guess. Ads, which are included in the fee for Corporate Memberships, will be increased from ¼ to ½ of a page.
Some vendors and corporate members are interested in having color ads. Tom will research this.
5. WWB 2009
Chairman: Kief Adler
Co-chair: Kelly Goebel
Vendor chair: Lynden King
Motion: Pete Wood: Second: Tom Calderwood
Some members would be interested in adding 1 more day (only for our 20th Winterblast).
Questions that must be addressed before this can be decided.
Will Lake Havasu City let us use SARA PARK for the extra day?
Will equipment and other rentals be on a weekly basis or will we have increased expenses?
Room Comps will be higher cost.
The extra day is mainly for manufacturers.
Vendors will be asked if they want to attend the extra day.
Attendance cost fee may be tiered for the 5th day cost for Winterblast 2008.
Motion Pete Wood: Second Ann Huffman
Motion passes
6. DO IT 2008
Chairman: Pete Wood
CO-chair: Bill McGregor
7. DO IT 2009
Adding an extra day for this event was discussed. For now it is tabled.
8. Upcoming events and lesson learned from WWB 2008. The following are suggestions.
 1. Rent-A-Fence use it to condor off a portion of the lower parking lot. There could be a gate on the road side next to the back gate and this area becomes the parking space for members including their motor homes. This will eliminate the members from having to deal with the Lion's club when they park on site. WPA will do our own policing for our members parked there.
 2. Grandpa Miller has informed WPA that he will not be vending for us at WWB 2008.
 3. Kief wants to get sponsorships from the city to help on additional costs.
9. A new badge making process is being looked into by Don Oesterle. The badges and membership cards will be plastic which can be used with a lanyard. It requires a printing machine (allows for making 1 at a time which will help speed up the process beforehand and on site). There will be no temporary badges requiring members to return to registration to pick up. The software should be able to work the data from the current Access database.
Action item: Don and Rita Oesterle
10. Clean up fees from WWB 2008
\$2850 was paid out to the workers this year. Some of the workers donated their checks back to WPA.
11. How many events are covered by our current WPA insurance?

Can WPA area events be covered on it?

Liability depends on the # of events so it would increase our insurance and is not financially or logistically possible for the club to cover area events.

A motion was made to not cover the individual area events. Winterblast, DO IT and Pyro Playa will be the only events covered on our policy,
Motion: Pete Wood Second: Kief Adler
Motion passed.

12. Non-aerial pyro shows or demos (ie. PyroBoy, and others)
There were safety people and procedures in place for these experienced exhibits
All of these will in the future be approved beforehand by the WWB chair, demo chair, a BOD member and a safety representative.
Kief will provide a parameter list for the participants to follow.
Action: Kief Adler
13. The BOD will try to provide quicker responses to time sensitive issues.
14. Streamlining Manufacturing test request times
Manufacturing area will have a Public Address separate system.
We will do a trail run of this system at DO IT 2008.
Steve Humphrey has a PA system that he will set up for this.
Action: Pete Wood
15. Pete Wood gave the BOD his views on future of WPA and its interaction with pyro industry.
WPA cannot remain stagnant if we want to prosper. We need to co-exist as a "brotherhood" with the other National Pyro groups and regulatory personnel.
16. Assignment of Bunker log duty at events
There is a need for more vehicles to transport product.
A motion was made that to purchase Class B product, the member must agree to put in 1 hour volunteer time at B bunker.
Motion: Kief Adler Second: Pete Wood
Motion passed
17. WPA needs a back up site in case SARA PARK becomes unavailable to our events.
Do we need a person or committee to research sites? An article will be put on the list for interested members to contact the BOD.
Action: Pete Wood
18. Texas WPA area.
Motion made for the Texas WPA area be folded into the Southwest area.
Motion: Kief Adler Second: Tom Calderwood
Motion passed.

Adjournment 8:56 pm

Motion: Kief Adler Second: Tom Calderwood

Rita Oesterle, Secretary WPA



Hitchin' a Ride on a 60-Pounder

by Steve Wilson

Back in 1992 I had the honor of producing the Public Display for the PGI Convention in Idaho Falls. Anyone who saw that show can attest to the huge undertaking it was to produce. Aside from what actually made it into the show, there were many other effects that I had plans for, but never actually finished in time to place in the display. This is a story about one effect that I had partially produced, but was not to be seen in action till many years later and only because of a chance opportunity to hitch a ride on one of Bruce Steyding's mammoth 60 pound finned rockets.



What I had tried to accomplish was an unusual 5" multi-break component shell. The shell was to consist of three almost identical three-break mini-salamis followed by a 5" bottom shot. The first break of each component salami was just some 3/8" green stars, the second break of each was 3/8" red stars, and the last break of each was timed photoflash - such that the photoflash break of each

component would go off in sequence 1-2-3, followed by a one beat pause then the big bottom shot.

Because of possible cumulative error in my spoolettes, I tried an unorthodox method of construction. The spoolettes for the two color breaks in each component shell were done as one would any other Italian style multi-break - the first spoolette lit the first break of each and that break in turn lit the second break. But since the timed photoflashes needed to be in perfect sequence with each other and the bottom shot, I mounted them on the other end of the shell, thus making a three break shell with spoolettes on each end. In this way all of the time photoflashes and the bottom shot took fire at the same moment that the main shell opened.

Well I mentioned that this 5" shell was to be shot in 1992 in Idaho. That didn't work out as I never completed the final assembly of the shell. So instead the parts for this shell moved from magazine to magazine for many years. After about two years, a friend convinced me that the bottom shot was a hazard to have around anywhere, so it was safely discharged at an appropriate venue. But because of the

amount of work that went into the three mini-salamis, I hung on to them for many more years, hoping for the opportunity to show them off some day in somewhat of the manner that they had been designed for.

Finally, I decided to take them out to one of our Do It events. This was the last Do It held at the Avi - yes it was the year of the color changing Chevy Suburban!

Many of you are familiar with Bruce Steyding's monster rockets. These finned beasts often come beautifully crafted and painted in red, white and blue. Bruce even has a special box he brings these in with separation barriers and fin caddies. Well Bruce showed up at the Avi with several of these, though perhaps built in a bit more haste, thus they didn't sport the usual paint scheme.



After shooting a couple of his rockets on Friday night, Bruce was unhappy with components he had put in his rocket heading this time out. He knew that since the rockets he shot on Friday night had the same heading as those he had planned to shoot on Saturday, he would get the same unsatisfactory results.

The next day, after the Chevy Suburban incident, I found myself wandering around the site looking for a creative way to launch my three, 3-break mini-salamis. At first I considered shooting all three of

Hitchin' a Ride on a 60-Pounder—continued

them at the same time out of three separate 2 1/2" mortars.

But that idea had a problem. Since each of the component shells had a spoolette on both ends, there was a high likelihood of one or all of them rupturing in the mortars. Those who practice Italian shell construction will know that shells with spoolettes are always shot with the spoolette on the top and utilize a passfire to light the lift.

That's when I found Bruce tinkering with his rockets under one of the many remaining canopies that dotted the roadside along the river. I was wandering around looking for a way to shoot my three shells and Bruce had one of his 60 pounders left in need of a better heading. We did some quick dimension checking and sure enough the three 2 1/4" X 10" multi-breaks fit perfectly inside the vacated heading on the rocket! Cool - I was going to send my little multi's up at least a 1000 feet! What an honor.

I proceeded in crossmatching both ends of all three shells all handing them over to Bruce. He then added some other comets in the remaining interices, burst was added and the nose cone glued in place.

Later that night, the rocket was finally shot. As usual it went

straight as an arrow - big fat charcoal tail - and up and up it went. Lord only knows how high those babies go, but they do it same every time - at least 1000 feet and maybe a lot more. At apogee the

heading opened, revealing the comets. Then the first green color break of each separate shell broke. Drat! A red break went at the same time too - one of the middle spoolettes must have blown through. Then the next 2 remaining red color breaks opened together. Finally the three timed photoflash breaks reported in 1-2-3.

I was a happy camper. My little salamis finally did their thing, albeit over a decade after they were constructed.

Later that night at the afterglow I thanked Bruce for the quality ride and suggested he sell payload space to other WPA members who might need a lift sometime.



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Secretary's Musings

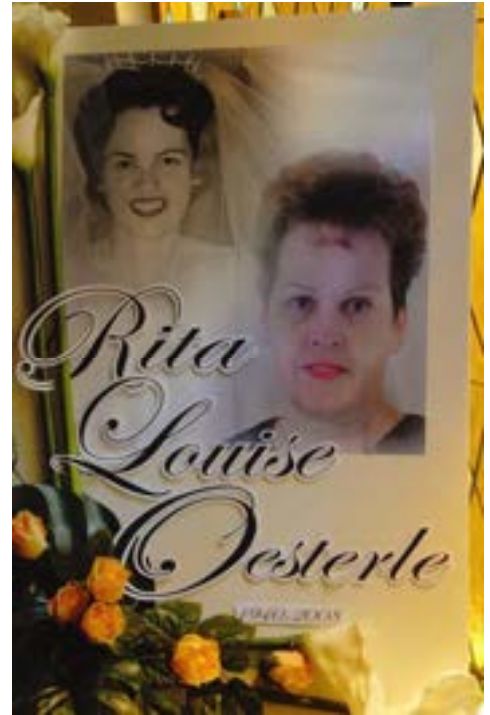
It is so strange to see this entry for the Secretary without Rita's matter-of-fact numbers and prod-ings. Rita's passing is a sober reminder of our own mortality. Life, in all it's checks and balances, in all it's use and abuse, is in itself terminal. We know this for a fact. But this fact does nothing to ease our sense of loss when someone we know passes on. It is especially poignant when that person is someone we love.

I'll bet that Rita knew most of you by name and face. That was her gift. Rita joined the WPA in 1998 as member #994. She quickly put her skills to work in the registration booth at Winter Blast. She was registration chair person for the past 7 years. This job is a somewhat thankless job, but you do get to meet people and Rita loved to do just that. It requires long, hard work off-site making sure that all the forms are printed, each member has the appropriate materials in their packets, membership cards printed up, badges distributed, waivers signed — the works. She excelled in this job. We will miss the "stuffing parties" held at the Oesterle house before Winter Blast.

For the last 6 years, she served the WPA as the club secretary. Ironically, she chose to step down from these posts for a very well-deserved rest at the end of this year. She also attended ALL of the Do it events. Her dedication to the club is immeasurable.

We all found it a privilege to have worked with Rita. We all found it a great honor to have had her as a friend. Our hearts, prayers and thoughts go out to the entire Oesterle family. We all will miss her dearly.

Respectfully submitted by Tom Calderwood on behalf of the WPA Board of Directors



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Looking Down The Barrel of a Loaded Gun

by Les Williams

For a little over a year now I have had the privilege of working with one of the (in my humble opinion) truly Great pyro operators of our time, Debbie Ludwig with Fireworks America! In that short time I've crewed on her shows in parks and athletic fields, on barges, piers, aircraft carrier decks, Roofs, and of course, on her weekly Seaworld show!

Deb, her husband Jim and her long time crew guys have shown me more cool tips and methods of "Doing Pyro" than I thought possible. Being a Hot Shot, Know-it-all Pyro when they agreed to take me on as crew, I thought I might be teaching *them*. Ya, Right. Boy,



did I get schooled!! I found there professionalism and dedication to the craft inspiring and there extensive experience and instruction both educational and humbling. So when Debbie suggested I write a little something about my gun checker contraption for our newsletter, I was honored. And after reading Tom's woeful plea for articles, I decided it was time to put pen to paper.

Over the years I have seen a number of different methods of "checking the guns" – making sure that the shell you put in there and fired. Or more accurately – LEFT in the mortar, smoldering and waiting to cut loose and ruin your day. Taking a quick peek down the barrel of a smoldering, six inch cannon is, at best, a dicey proposition.

I know the PGI calls for a MINIMUM of 15 min. to let things "cool down" And while one might LIKE to wait 30 minutes or more to check the guns, that's not always possible. In an effort

to make this hazardous but necessary chore as safe as possible, I set out to make a device to look in the guns without actually putting my melon directly over it.

It seemed like an easy thing to do, it wasn't. In my garage I set up a rack of guns and started experimenting. After going through 4 or 5 different flashlights, a couple of periscopes, a half dozen Mirrors, and ump-teen Holders, brackets, braces, chains and the like, I finally came up with a device (and just importantly, a *METHOD*) of looking into the guns that addressed both the safety issues AND the problems of vision, reflection, refraction and glare.

After much experimentation I came to the conclusion that it was best to look down the line of sight WITH the light. That is, reflect the light off the mirror and into the gun while kind of "looking over its shoulder". The device that seems to work best (so far) is a very bright, rechargeable, pistol grip type flashlight, with an adjustable mirror held at a 45 degree angle in front of and slightly above it. (whew)

I hold it at arms length at eye level, glance down at the gun closest to me and put the spot of light that is reflected straight down from the mirror, directly in the gun.

Then, sighting it just like a pistol, I look across the top of the flashlight at the mirror and Viola, There it is! An (almost) perfect view right to the bottom of the gun. After clearing this gun, I can keep my sight on the mirror and move forward slightly to the next gun in line and so on. All accomplished with NO part of my body over an uncleared mortar. With my head a good FOUR FEET from the end of the mortar, A shell firing at this time would break the mirror and perhaps hurt my wrist by tearing the flashlight out of my hand, but if it didn't scare me to death, I'd probably live to tell about it!

Thanks for listening. Stay Green / Safe Shoot

- Les Williams



Additional Firing Precision for Choreographed Displays

By Ron Dixon, MBA

(Originally published in 1997 in American Fireworks News)

I read with much delight the article in the last WPA Newsletter by Dr. Ken and Bonnie Kosanke on how to improve the precision of choreographed displays. In my early years of display operations (1971), I often asked why electric matches were placed in long match leader ends, or at the area just above the body of the shell, if truly your objective was to achieve precise timing of the shells to music. Dr. Ken and Bonnie, in their scientific approach to problem solving again precisely proved what I had 'sensed' for many years.

What do I know? Well, I started my choreography career in 1971 working for the late Tommy Walker (remember the Olympic ceremony with 88 Grand Pianos?) at Anaheim Stadium on a KTLA Fourth of July simulcast. Years later we bought San Diego Fireworks and performed thousands of displays across the USA and abroad for major theme parks, professional sports, symphonies, Radio stations including 29 KGB Sky Shows and was the creator of the Fireworks Radio Network in both San Diego and Los Angeles. All said and done, I stopped counting at just under 10,000 choreographed displays performed in my 37 year career.

I would like to continue on where Dr. Ken left off "the timing precision is greatly improved, with each method producing a firing time precision better than would be perceived by spectators." To take this 'art' one or two steps further in precision, I would like to offer the following: My definition of Pyro-Choreography is the process of visually describing the coloration, mood, effect and intensity of the music by the application of pyrotechnic devices and special effect materials. An integral part of Pyro-choreography is synchronization. I define synchronization as the coincidental matching of the timing of musical points with the appearance or occurrence of a pyrotechnic effect. When you attempt to do this, you take a certain amount of risk. But when it is successful, the results are striking! On the down side, if you have ever watched a movie or video where the sound is out-of-synch with the picture? It is obvious to even the novice observer. In years past I wrote a five part series on Choreography so this article will concentrate only on the synchronization component.

Remember I stated that synch is the coincidental matching of the music with the appearance of the pyrotechnic. Assuming two factors, electrical firing will be used and that the speed of electricity from the point of switch closure to the point of ignition of the electric match is for all intents and purposes instantaneous, we will look at first those things leading up to that switch closure and second at the appearance of the effect after switch closure.

Operator delays are those seconds or fractions thereof that lead up to the switch closure, from the point at which the decision has been made to fire that item, until the electric match ignites. We will consider insignificant any delays when using digital time codes to make this decision and look at electric firing panels, pin boards and probe (stylus) pad type systems where a person responds to an audible or visual cue (SPFX). From my experience and tests using precision timers, the typical human delay is about 250 milliseconds or ¼ of a second. This may seem too small to worry about, but when added to errors to be discussed next, the cumulative error can be obvious to the casual observer. Another point to consider if you are using noise generating devices (salutes, concussion mortars, ground bombs, etc.) is the location of those devices relative to the listening audience and the location of any speakers delivering the sound track, if you desire to augment the musical effects with noise generating pyrotechnics. Sound travels at approximately 1100 Feet Per Second. If your audience and any sound delivery system is 550 feet away from the pyrotechnic devices, you should add ½ second anticipation to the timing of the device. Many of you have been treated to Ken Nixon performing the drum cadence from the Washington Post March with ground bombs at early Winter Blasts, and you will recall the delay from the flash to the 'thump'. This is what we are referring to.

Lastly, we will discuss variables from the point at which the electric match ignites until the appearance of the shell or effect. This interval is commonly called the PFT (Pre Fire Time) or Lift Time, or Lift Delay. Many means of capturing this delay include the use of stop watches, video recorders and more sophisticated pyrotechnic timers incorporating triggers based on the electric firing signal to start the timer and optical and/or audio triggers to stop the timer. However you decide to capture this elapse of time, do so for several of the same exact item in the same production lot or batch, and record the time with at least the same level of precision as the firing system or better. (FSK based systems = 1/10 second, SMPTE based systems = 1/30th second, Pin Board = ¼ second, etc.) The more accuracy the better! Keep frequent and accurate records of your testing.

Now this only leaves us with one more variable, and that is the time from the burst of the shell, or the lift of the mine or comet and the appearance of the effect. If you are measuring the lift time, do not stop the timing device at the burst or when the mine or comet lifts, but rather when it fully appears to the observer. Primes on stars, time delays on shell inserts, thrust delays on serpents, tourbillions and hummers can be major contributors to postponements in the appearance of the effect. The delays can also be typically from ¼ second to 1 full second. Again a significant amount of delay.

If you follow Dr. Ken's suggested electric match placement and follow these tips, you will have your effects snapping in synch with the music and the audience amazed!

The 25 Most Influential Books in Fireworks History

By Ryan Parks

It is a common experience for me to get a tilted head and empty eyes when someone asks me what I do for a living. I suppose by looks alone, most would guess me for a construction worker, plumber, garbage man, or someone more in the vein of a hard working, foul mouthed, beer drinking, heavy metal music blaring guy (all of which I am).

“What do you do for a living?” they ask staring at the tattoo of a winged demon decapitating a man’s head on my left arm.

“I sell rare books”, I say with a crooked smile, knowing what’s to come next.

“Rare books? You? Like a librarian?” (I hear that often), they tilt their head and give it a scratch.

“Something like that, yes.”

My specialty is early printed books (published from 1450 to 1750). A large part of our stock and something my firm is specifically known for, is our collection of the occult. Within that collection there is quite a few books that deal with alchemy, secrets and magic. In printing standards, these subjects of books gave birth to the bibliographic realm of fireworks.

Up until the last fifty years or so, firework books were not common in the printing world. And in the book trade in general, they still are a shallow print in the publishing world. So those that are available

work industry and its artistry. I am proud as a pyro to say several of these books, despite their age, have been in my hands (most all people cannot say that). There are several books throughout history that were important to fireworks that dealt solely in chemistry or military, I chose to leave them out and went with the books dealing with fireworks as entertainment and recreation.

My main sources of reference:

Boorsch, Suzanne - Fireworks! Four Centuries of Pyrotechnics in Print & Drawings.

Brock, Alan St H. - History of Fireworks.

Philip, Chris - A Bibliography of Firework Books.

The 25 most influential firework books in history, in order by date:

1. Biringuccio, Vannocio. De la Pirotechnia. (Venetia, 1540).

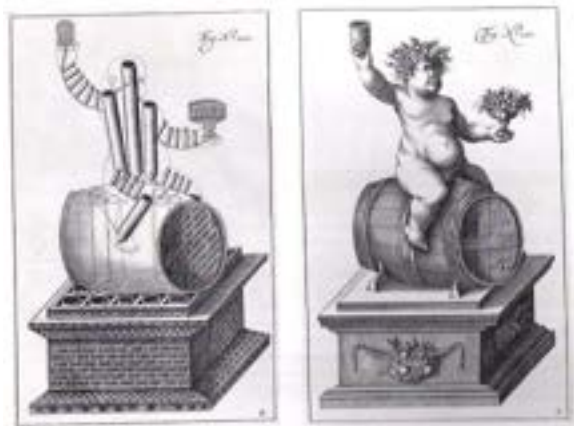
Translated: Pyrotechnics.

Chapter ten of this book deals with “artificial combustible materials” such as: how fire tubes should be made, method of making tongues of fire, preparing fire pots, manner of compounding various compositions which are commonly called fireworks, and the method of making girandoles, which were used in some Tuscan cities for magnificent displays for public festivities.

2. Schmidlap, Johannes. Kunstliche und recht- schaffene Feuwverck zum Schimpff,.....(Nurnberg, 1560).

Translated: Artificial and honest fireworks for joy, never printed before,..... Described as the earliest published work devoted exclusively to fireworks as a form of entertainment. A complete guide to pyrotechnic displays, manufacturing, effects, and necessary precautions (first book on firework safety also).

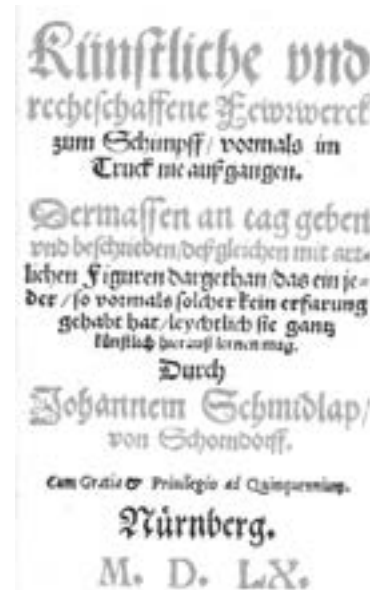
3. Malthe, Francois de. Traite des Fevx Artificiels povr la Guerre, et povr la Recreation,....(Paris, 1629).



Siemienowicz: Art of Artillery, 1650.
Depicts inside and out of detailed set piece.

now or that have been printed in the past, are quite important to pyro enthusiasts such as ourselves.

I thought it an interesting task to search out the most important books ever printed on the subject. With the resources and books available to me, I had a chance to successfully put a list together of what I thought to be the most important and influential books on the fire-



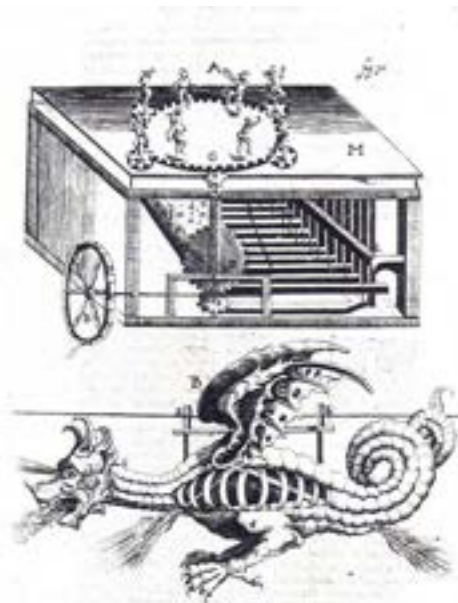
Schmidlap: Artificial and Honest Fireworks for Joy, 1560.

The titlepage to the first book ever printed on fireworks as a recreation.

Translated: Treatise of fireworks for war and recreation. Malthe's instructions for firework making are far more advanced and detailed than any other work previous. Includes: rockets, serpents, golden rayne, stars with reports, fierie boxes, lances, girandollas, wheels, and more.

4. Babington, John.
Pyrotechnia, or a discourse of Artificial Fire-Works,.....(London, 1635).

The first English work treating on fireworks. Believed to be the first English work to deal exclusively with the subject of display fireworks. All others dealt primarily with fireworks use in the military.



Babington: Pyrotechnia, 1635. Depicts rocket power in a automata and a dragon display piece attached to a line.

5. Siemienowicz, Casimir.
Artis Magnae Artilleria pars prima. (Amsterdam, 1650).

Translated: Complete Art of Artillery. An ultimate authority in its time and throughout for its recipes on manufacturing. Dealt with: calibres, pyrotechnics, rockets, fire-balls, and warlike firearms. Long and detailed section on rockets and detailed descriptions of building firework set pieces.

6. Sylvius, Frederick. Unterschiedene neue Arten von Junstlichem Feuerwerck,.....(Qelss, 1657).

Translated: Different new types of artificial fireworks,.... A large selection and a half dozen illustrations on wheels, rockets, and shells.

7. Anderson, Robert.
The Making of Rockets. (London, 1696).

Book goes into great detail concerning the manufacture of rockets.

8. Frezier, Amedee Francois.
Traite des feux d'artifice. pour le spectacle,.....(Paris, 1706).

Translated: A treatise of fireworks for celebration. Contains much information about conduct and planning for displays rather than instruction for manufacturing. Frezier was a military engineer by trade, but well known as an amateur pyro. A book still commonly used today in firework research.

9. Stoevesandt, J. C.
Deutliche Anweisung zur Feuerwerkerey,.....(Halle, 1748).

Translated: Simple instructions on making fireworks,..... Gives detailed account on how to make fireworks and what tools to use. Includes compositions of powders and effects and details for various set pieces.

10. Alberti, Giuseppe Francesco Antoinio.
La Pirotechnia o sia Trattato,.....(Venezia, 1749).

Translated: Pyrotechnics: treatise on artificial fireworks,.... The first work in Italian to deal with fireworks as entertainment and pleasure.

11. Jones, Robert.
A New Treatise on Artificial Fireworks. (London, 1766).

First book dealing exclusively with recreational fireworks in English since the Babington of 1635.

12. Angelo, T.
The Art of Making Fireworks by Plain and Easy Rules. (London, 1825).

Excellent book listing directions for making sky rockets (from 2oz to 6 lbs), tourbillions, mortars, roman candles, stars and more.

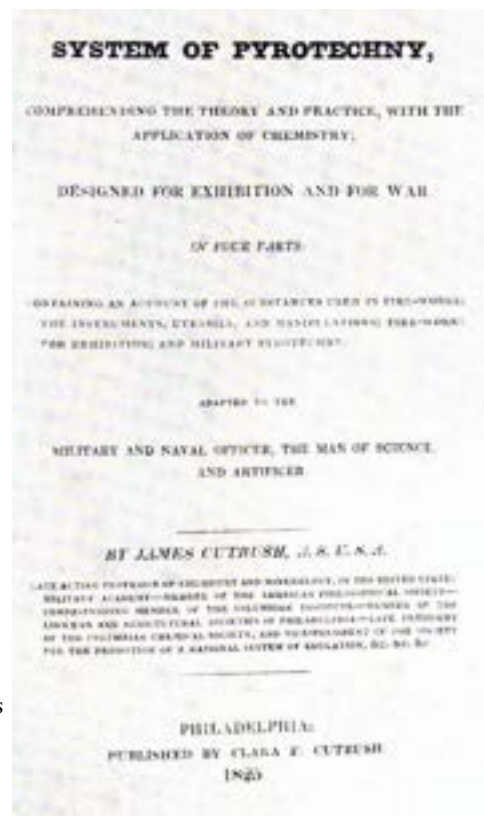
13. Cutbush, Professor James.
A System of Pyrotechny, Comprehending the Theory and Practice,..... (Philadelphia, 1825).

Contains every aspect of pyrotechnics, civilian and military. Extremely detailed. The first major American contribution to the literature of fireworks

14. Risho (pseudo). Hanabi hiden-shu. (Osake, circa 1825).

Translated: A Manual handed down secretly on how to make fireworks.

Detailed instructions on making of fireworks including miniature fireworks for domestic use such as: "weeping willow", "tigers tail", and "thousand fire-



Cutbush: System of Pyrotechny, 1825. The titlepage to the first major American printing of fireworks.

flies". Also contains elaborate detail for public displays. For many years this book was the common manual used in production of Japanese fireworks. It is still used today for its valuable information on black powder.

15. Chertier, F. M.

Essai sur les Compositions qui donnent le plus belles Couleurs,..... (Paris, 1836).

Translated: Essay on the compositions which give the most beautiful colors in fireworks.

Chertier is considered to be one of the greatest pioneers in pyrotechny. This essay is a landmark in pyrotechnics. It introduces all the basic colors into fireworks for the first time in print.

16. Browne, Dr. William Henry.

The Art of Pyrotechny,.....(London, 1873).

Browne was considered the best English pyrotechnist writer of his time. He, unlike most other writers on the subject, was indeed a pyro himself - a pyrotechnic chemist by trade. Spent most of his life experimenting with explosive compounds and in his spare time gave private pyro lessons to pupils at their own residences.

17. Kentish, Thomas.

The Pyrotechnist's Treasury,.....(London, 1878).

Considered to be one of the greatest how-to pyrotechnics book ever written. Still as relevant today as it was 100 years ago.

18. Antoni, Domenico.

Trattato teorico, practico Pirotecniã Civile. (Trieste, 1893).

Translated: Theory and practice of recreative fireworks.

Provides one of the earliest detailed descriptions of many types of Italian style shells, still in use today - including: multi-break, parachute and comet shells. Profusely illustrated.

19. Brock, Alan St. Hill.

Pyrotechnics: The History and Art of Firework Making. (London, 1922).

The only book at the time to describe an overall worldwide history of fireworks. A must for any pyro book collector.

20. Weingart, George Wasginton.

Dictionary of Pyrotechnics. (New Orleans, circa 1930).

Weingart is considered by some to be the father of modern American firework practice. A popular work amongst American pyrotechnists.

21. Shimizu, Takeo.

Hanabi. (Tokyo, 1957).

Translated: Fireworks.

Shimizu is considered to be the greatest of pyrotechnists in the 20th century, and one of all time. Hanabi was the first systematic firework book printed in Japan. Shimizu wrote many books on the subject and is still used often as a main source of reference in the firework world.

22. Ackalusky, James.

Handbooks for Making Rockets and Fireworks. (New York, 1960).

A great resource book for beginners and professionals, alike.

23. Lancaster, Rev. Ronald M.A.

Fireworks. Principles and Practice. (New York, 1972).

This was originally to be a "revision" of Weingarts work, but in turn, became a newer fresher work with much more detail and content. Considered one of the best works of the 20th century on the subject.

24. Hosoya, Masao.

Hanabi no kagaku. (Tokyo, 1980).

Translated: The Science of Fireworks.

Author was the owner of Hosoya firework factory and had over 60 years of manufacturing experience at the time of publication. Book was written for students and scholars, alike. Also contains a bibliography of Chinese firework books.

25. Perigrin, Tom.

Introductory Practical Pyrotechnics. (Chemung, 1999).

This book is considered the modern day bible for many amateur and pyrotechnic hobbyists. A great guide of pyrotechnics in terms and details that all readers can grasp, rather than most other scientific publications. This is the book everyone is looking for so far in the 21st century.

- Ryan Parks

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In the meantime, be sure to checkout a video of the display we shot for
Evel Knievel's funeral and create your own DVD from the posted ISO file!

www.wolverinefireworks.com/videos

Northwest - 1.3G & 1.4G
Wolverine West
4616 - 25th Ave NE #528
Seattle, WA 98105
360.870.1833 or 206.459.0917
west@wolverinefireworks.com



Southwest - 1.4G
Outlaw Pyrotechnics
2280 W. Betty
Pahrump, NV 89060
866.606.PYRO (7976)
info@outlawpyro.com
outlawpyro.com



Midwest - 1.3G
Wolverine Fireworks Display
205 W. Seidlers Road
Kawkawlin, MI 48631
989.662.0121
east@wolverinefireworks.com

Midwest - 1.4G
Captain Boom Fireworks
PO Box 331
Otsego, MI 49078
269.694.BOOM (2666)
info@captainboom.com
captainboom.com