

Western Pyrotechnic Association



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Cliff making a shell

Photo by Wesley Egan, WWB 30

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Notes from the Board

Changes on the Board

This past WWB, there were two positions open on the Board of Directors. Dennis Miele ran unopposed for Secretary. He's now on the hook for two more years. Dorris Hennings ran unopposed and replaced Jane Anderson who stepped down just before WWB. Big thanks to Jane for all the work she put in while serving as Treasurer. The positions of President, VP of Communications and Treasurer will be up for election in February 2020.

The General Business Meeting set a new record and was completed in 48 minutes last WWB. Thanks to everybody who helped organize, and the folks who got their questions out before the event. Let's do that again in 2020.

Update on Strategic Goals

For the past year and a half, the Board has been working towards three strategic goals: Fixing the financial issues, setting up a permanent manufacturing site and running the club more like a small business.

We have the financial problems of the past under control. Taxes are filed and the club is in good standing with the IRS. We are considering this goal to be completed, but it has opened the door to even more financial scrutiny and work from the Board.

Permanent manufacturing now has a group of WPA members (including Board members) who are working towards finding a location. It's slowly moving forward, and as soon as there's more to share we'll let you know. If you want to be more involved, there's an email list for permanent manufacturing. Send email to any board member and we'll get you connected.

Running the club more like a small business is an ongoing goal. We made progress, but there's plenty more to do.

In the spring of '19 the board met to determine the goals for the next year, and we decided on the following three areas: Information Technology, Running the club like a small business, and Leadership development.

Running the club like a small business - continued from last year

We made a long list of things to work on. The three biggest goals are:

- » Having a balance sheet and profit/loss statement for the year (fiscal and calendar).
- » Having a profit and loss statement each event.
- » Create a calendar of every important deadline (tax and financial items, BATF items, payment dates for services, newsletter due dates, etc) to ensure that things done on time and to make the transition between Board members easier.

When we get done with these tasks, there are plenty more. Stay tuned for updates.

Information Technology (IT)

Website and electronic communication is a moving target. There have been huge improvements in the website (online registration!) over the past handful of years. The Board wants to help direct the changes being made, as well as make a cost/benefit analysis on the changes. We'll be working with John Noonan to look at features to add, ways to save money and decide what should be done in by WPA volunteers (saves money) vs. paid professionals (saves time).

'19 Strategic Goals, continued

Leadership development - we have to be honest and admit that the club is run by aging boomers. If we don't have a program to encourage younger members to step into volunteer, staff and Board roles, we're going to run into problems. We plan to create a set of documents detailing how events are run, what staff responsibilities are, ensuring that the club has a board, staff and volunteers well into the future.

The PIT Crew and Safety

Greg Dandurand

The Pyros In Training (PIT) crew is an excellent program that introduces youngsters to our wonderful hobby. The cliched "children are our future" is very true in our club. We need fresh faces, new ideas and their strength. I don't want to be unloading and loading containers when I am 75.

Teaching them how to build and shoot fireworks is only part of the equation. Dressing safely is paramount. For example, if your kid is playing full contact football, you wouldn't drop him or her at practice wearing no pads or helmet and expect them to play. The WPA is the same way. Cotton long sleeve shirts, cotton long pants, closed toed shoes and safety glasses are the uniform of the day for all PIT Crew activities.

That is where we need the help of the parents whose kids are in the program. You have a vested interest in this, it involves the safety and well-being of your kids. Making sure they are outfitted properly before arriving for activities and staying for a bit to help get things started is appreciated.

The PIT Crew program is in its infancy, it will be fine tuned and adjusted as needed. The BOD (which I am on) and the Safety Team (which I am chair) are trying to get ideas from other pyro organizations that have similar programs. Working together with our PIT crew instructors and parents of participants, we can ensure this program is safely run and around so that students can become the teachers. Good safety habits begin at home and peer to peer encouragement can help set policies to become second nature.

Let's join hands and minds to shape and mentor these kids so the club will be around for WWB C.

Maker Faire

Once again, the WPA had a booth at the SF Bay Area Maker Faire. It's a great place for recruiting new members, and sharing education about pyro.

Many thanks to Wally Glenn, Mike Garret, Al Stahler, Steve Wilson, Dave X, Todd Hall and everybody else involved.

Unfortunately, the company that puts on Maker Faire has gone out of business. It appears that Maker Faire has run its course.

From the President

Greg Dandurand

The Fourth of July is upon us. I hope you had a fun, safe and profitable time. WWB XXX is in the rear view mirror. Things went well and we saw a large attendance. Everyone I have spoken with had a great time. The entire volunteer staff deserves a round of applause (no golf claps) for their hard work.

Please take a moment to remember Susan Riley, who worked diligently behind the scenes as our Staff Services person. It was always a welcome respite to sit in the staff tent, particularly after a rough evening and have a hot drink and a place to unwind. She will be missed by all of us and our thoughts go out to her husband Matt, and their children, Keenan and Kirsten.

The recent bank fraud on the checking account has kept our new treasurer, Dorris Hennings, moving quickly. Jane Anderson, our outgoing treasurer, has been an asset with a lot of the smaller details to keep this under control. To be honest, it has given me a couple of sleepless nights. The plus side is that I am on a first name basis with the account people at the local branch and can open a new account in my sleep. We have not lost any money and the banks are quick to open fraud reports and credit back the tens of thousands of dollars. The incidents started when a member photographed a check for deposit and their phone was hacked. Please be careful with on line banking and consider changing your passwords frequently.

Wow Greg, such a depressing first few paragraphs. Unfortunately it is not all rainbows and unicorns, as President (not for life), I have to keep the membership informed.

I cannot speak directly to the permanent manufacturing site issue, but the information I have is that it is doable, but will continue to take some hard work of those involved. Please support them where you can.

Do-It in Hawthorne will be happening soon, I hope to see you there. Last year had great weather, and while I can't even begin to predict the weather this year, the more people we have attend, the warmer we get when we huddle together. John Dicks is running the show again, there don't seem to be any major changes.

Maker Faire in the Bay area was a hit, we had a good group to represent us. Wally Glenn, along with Mike and Wanda Garrett led the charge to beat the bushes and get new members. They had a lot of help, I thank everyone who participated in this outreach program. Alas, this will be the last one, as the parent company has shut their doors. It was a good run while it lasted.

We have a BOD that works well together, but something is missing. That would be YOU. I am stepping down next year after 9 total years on the board. This is the chance for someone to step up and lead the charge for a bit. I cannot even begin to thank all the former board members who have been available when I needed guidance or had questions. They say heavy is the head that wears the orange hard hat, but you will never be alone. Think about it.

See you at Do-It!

What is a Mascleta?

Dave X

The Mascleta is a daytime fireworks display typical of Valencia, Spain, where the rhythm of the bursts and the sensations they produce in your body are the whole point. The sounds are so intense that folks jump up and down with excitement as the tempo reaches its peak. When you are close you can feel the pressure waves moving your eyeballs in and out of their sockets like a speaker diaphragm!

The history begins in two ways. First is the ancient Valencian firecracker string known as the Traca Valenciana. The Traca is in most cases 33 to 66 feet (10 - 20 Meters) in length, with small salute charges (Petardos) along the length and a larger 20-millimeter diameter charge (Trueno) at the end.

A second display in this style is the L'Engraellat. This display consists of small ornate steel cannons (Cañoncitos) designed to sit on the ground facing upwards. Filled with black powder and capped with rammed clay they are lit from a small fuse hole on the side or fused together in groups. In early days being close and running alongside the line of the little cannons while they were firing was part of the spirit of the display.



Mascleta



Falleras Mayores

You will find Mascletas throughout Valencia during Las Fallas, from the 1st through the 19th of March each year. The biggest of these displays take place in the the city's central plaza, the Placa de l'Ajuntament. Wide streets surround a wedge shaped, steel caged area where the public will gather and claim space hours in advance. The site itself, with its surrounding tall stone-faced buildings, acts to resonate and amplify the sound so that no matter where you are in the plaza the vibrations engulf you from all directions.

While there are as many variations on the Mascleta as there are pyrotechnicians in Valencia, a typical Classic Mascleta in the Placa de l'Ajuntament will be composed of all or at least most of the following distinct sections:

The Notices (Avisos)

Beginning at ten minutes before the display a notice is given (Aviso) consisting of single aerial salute (Trueno). This is repeated at five minutes before, and again to start the display for a total of three notices.

The Beginning (Comienzo en tierra)

As the clock bells ring, the Mascleta begins on the balcony of City Hall (Ajuntament de València, on the Plaça de l'Ajuntament) with the call of the Fallera Mayor who is the queen of the festival... "Senyor pirotècnic, pot començar la Mascletà"

As the call dies away one or more strands of "Traca Valenciana" are ignited. In most case these are hand-lit and it is a great honor to be the one who puts fire to the first fuse. Though small in comparison to the rest of the display, the Traca is a nod to the traditions and the roots of the Mascleta.

First aerial section (Principios aereos)

The opening Aerial section typically starts at a slow pace before building to a tempo distinct to that pyrotechnic designer. The display will feature roman candles and single shot devices including aerial salutes, five kinds of whistles, aerial smoke effects, tourbillion, crackle or other effects. This is also a time to feature movement, as the devices are fired in circular patterns around the edges of the cage. The pacing of this is key to the artistry, and great care is taken to create rhythms and peaks that are distinct. It is like the Thunders themselves are dancing a Valencian tap dance in the sky.



The Strings

(Mascleta)

The main body of the display consists of five connected sections. Each section is composed of an increasing number of strings with hanging Masclet charges suspended from five to ten feet (1.5 – 3 Meters) above the ground.

A standard Masclet can be from 20 to 60 millimetres in diameter and is composed of a high energy flash powder mixture of aluminum, potassium perchlorate and sulfur. Each string in a Mascleta is composed of ten Masclet connected with quickmatch fuse. A Masclet is separated from the one before it by a 4-second duration time fuse, so each string takes 40 seconds to fully ignite. The Masclet as it ignites drops to the ground with a short time fuse before bursting. In some cases, the designer may choose to attach a short string to the base of the Masclet so that as the fuse ignites it drops down and is held suspended by the short string. The first section is usually composed of five strings and each of the four remaining sections of the Mascleta contains increasing string counts. The intention is to create a smoothly increasing level of intensity with distinct rhythms. If you are thinking of the loudest noise you have ever heard right now...Double that! The effect of each one is awesome, but multiples going off at the same time create waves of pressure so intense pregnant women are advised not to attend and you are cautioned to leave your mouth open and your ears unplugged to let the pressure pass through!

The Masclets can be accompanied by more aerial salutes, whistles, aerial smoke effects, tourbillion or other effects. These are also choreographed in such a way as to increase in intensity and maintain a distinct rhythm.



Aerial Positions

Transition to the earthquake (Entrada a terremoto)

At the completion of the five or six sections of the main body the transition to the finale Earthquake (terremoto) is treated as high art. The transition section is connected to the main body with redundant sections of quickmatch fuse or even with sections of Traca Valenciana. The artistry and intention is that this transition be smooth, and neither overlap the earthquake section nor allow a detectable separation from the earthquake. This transition can also be electrically fired, though this is a non-traditional method.

The Earthquake (Terremoto)

The earthquake begins with the ignition of the remaining strings of Masclet that are fused together with no breaks. The Masclets in these sections are simply connected along the quickmatch fuse with minimal time delays. The movement of the ignition can be from side to side, from front to back, or all rows at once.

All of these words are just that - and in no way actually, describe the earthquake. I can assure you as someone who has stood alongside the cage during a number of earthquakes, it is so intense you can feel your organs moving around in your chest. In my case at least, the experience is right on the edge of triggering the involuntary animal flight instinct.

Bombardment (Bombardeo)

This section begins at the completion of the earthquake (Terremoto) with a fast paced barrage of aerial salutes, whistles, aerial smoke effects, tourbillion or other effects choreographed with distinct rhythm and movement. This part in most cases ends with a massive barrage of aerial salutes that if done right will end sharply, leaving the sky ringing with silence.

Once the wave of the display ceases, the shouts from the street summon the Pyrotechnic Master across the square to the historic balcony of the City Hall (Ajuntament de Valencia) for a bow and wave to the adoring crowds below. The work of the Valencia Fireworks dynasties is something that is not to be missed. And my tip to you... If you ever find yourself in Valencia for Las Fallas make sure you get to the Plaza del Ayuntamiento at least 3 hours before to get a good spot up close to the cage... Bring a picnic lunch!

Appreciations:

The City of Valencia Spain for all of the help and connections

Mikel Pagola Erviti - Director San Fermin International Fireworks Design Competition for all of the Technical help.



Mascleta with stars



Words and photos from Dave X

WWB XXX

Once again, WWB was a success. We had the usual beautiful displays, amazing member built shells and a great gathering of friends and pyros. Interesting weather too.

Thanks to the WPA staff, huge number of volunteers, vendors, display companies and everybody who worked to make the event a success.



Things that go BOOM in the night

The Pyros in Training program had another successful year, and we expect to see it continue into the future. Got kids? Get them involved in the program.



Lonny and the next generation of the Mather family were among the many builders who kept the WASP tent busy.



There's a rumor that Todd had his wristband cut the first day, but it's wasn't for this demonstration of "Safety Third".

Video from Wednesday Night open shooting
by Dustin Moore
https://youtu.be/ceVoVPB_qfk

WWB Registration

Hi All,

First of all, thank you to everyone for your cooperation and patience with your WWB Registration team. From our point-of-view, everything went very well. If you have any suggestions for improvement, please send directly to me at the email below. About 45% of membership renewals and event registrations were done online. This is steadily increasing since we introduced the online system for WWB in 2014. We will continue to encourage use of the online system, as it makes things easier for us, and hopefully for you too.

Since its introduction 5 years ago we have made a number of changes to the WPA web site. More than half of what this system does is to help us manage membership and registration, and is invisible to members. It now handles things that the original design did not anticipate (for example, RV, preglow, PIT, and other things). And some of the new features we need do not fit well within the current system architecture (new member approval, better accounting, vendor registration, display crews, etc.). So we have begun work on version 2 of the system. It is a complete restructuring and rewrite to handle the things on our list and incorporate flexibility for future ideas. For example, as permanent manufacturing takes shape, we will incorporate the necessary features to support this.

By the way, when I say "we" are working on this, it is pretty much a team of one volunteer - me. If anyone is experienced with Ruby on Rails and/or AWS and you can lend a hand, please let me know. Another set of experienced eyes would be great, even if just for review purposes.

Thanks again,
John Noonan
Membership, Registration, and Web Site Guy
membership@westernpyro.org



Even the President/Safety Chair gets to have some fun from time to time.
- Thanks for all you do Greg.



**Boiling
Liquid
Expanding
Vapor
Explosion**

The BLEVE was popular and warm.

The Jackalopes brought back Bunny Blasto and reproductions of some of the other interactive exploding artwork from years past.



Bunny Blasto artwork is fun in the light too.



Do It 2019

Do It is scheduled from September 17 to 22, 2019, at the racetrack in Hawthorne, Nevada.

There will be manufacturing and shooting Wednesday, Thursday, Friday, and Saturday. Set up will be Tuesday, September 17 and cleanup will be Sunday, September 22.

The Host Hotel is once again the El Capitan, and rooms are usually \$50-\$60 per night. Whiskey Flats is an RV park that gave us discounted rates last year (just under \$200 for the week). Keep an eye out for details on the mailing list. There will be dry camping onsite.

Expect to hear from Lonny about volunteering and John about registration in the near future.

New to the WPA? What's Do It?

Do It is the WPA's event focused on manufacturing. There's usually 100-125 people in attendance. Manufacturing is located further from shooting, so manufacturing doesn't close until the end of the night. Since there's no public display, shooting is almost never interrupted.

There's not much vending, but there's lots of space to spread out and manufacture all day. The Afterglow meal is usually served around sundown. After we stop shooting, there's a camp fire, snacks and beverages. The host hotel is also a casino and bar, and there's usually a group of pyros who end up there for the post-afterglow party. Warning: Nevada doesn't stop serving at 2:00 AM.

Come to Hawthorne; it's a great place for pyro. There's more time for shooting, and it's the perfect place for experiments you want to show off at WWB.

Permanent Manufacturing Update

Tommy Wohlhieter & Lonny Ross

Hey WPA members!

As many of you know, myself, Lonny Ross and the Permanent Manufacturing Site committee have been hard at work trying to come up with potential sites for year round manufacturing for WPA members. We were approached by WPA members Bruce Beck and Bob Pierson to consider adopting the manufacturing area of the Utah Pyrotechnic Guild (UPG) to be the first WPA PM site. The UPG already has an established site with all the magazines, chemical storage and local permits required. The site is already up and running, which is a huge bonus for everybody involved. We're still in the early stages and no paperwork has been signed, but we're feeling good about it. If this happens, WPA members would be able to join the WPA's Utah Manufacturing Club (or whatever it ends up being called). It would be a licensed, legal spot for manufacturing and storage.

To be clear, anybody using the site would need to be a WPA member as well as a WPA Utah Manufacturing Club member. Like WPA events, any PM sites need to be self supporting, so there will be dues for the manufacturing branch of the club as well. No details have been worked out, but it shouldn't be much money out of your pocket.

The PM site will be its own club, so if something goes sideways the WPA is legally protected and not liable or responsible.

While I know Utah may seem like a bit of a drive for our west coast members, it is definitely a starting point. We will need tons of support from WPA manufactures, even if a proposed site is too far for your use and does not directly affect you - we **need** to start somewhere. Once we get one site established, we can start adding additional sites that better suit members based on your location, such as a Northern and Southern Nevada site. We are actively pursuing and negotiating with people in these locations.

If you'd like to get involved, please email Lonny Ross at volunteers@westernpyro.org. We have a meeting on the last Wednesday of every month. As Larry The Cable Guy would say, lets Get-eR-Done!

We hope to see you at the meetings!

Tommy Wohlhieter & Lonny Ross