



**JANUARY 2016**



**Mark Palma demonstrated sand paper types, sanding techniques and the subject of scraping**

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# Prez Sez

## Feed My People

The annual Feed My People bowl drive (Empty Bowls) continues. Bring your bowl donations to the next meeting on February 3rd and they will get delivered to Feed My People. If you live in the Menomonie area get in touch with Dennis Ciesielski (715-233 0236) and he will get them to the donation center in Menomonie. You may also donate items for the Empty Bowls silent auction. We already have several items qualifying. For more information contact John Layde (715-834-9371) and he will help you out.



## President's Challenge

The March President's Challenge is a decorated wooden Easter Egg. We have a few egg jigs of Bob Eberhardt's design at the clubhouse. If you have your egg almost finished and need to trim off the ends, you can use any of the three egg trimmers we have in the shop. Come to Coffee and Chips and use it with one of the shop lathes.

## Ceremonial Mace

The Mace for UWEC is coming together nicely. We will begin final assembly on Wednesday, January 27th. Dr. Harrision will be there to look it over. If it has to be revised we will make those revisions and bring the parts back by February 6th when they will be taken to the finishing shop to have the final epoxy finish applied. It is a great project and involves quite a few of our members, including some who have ties to UWEC.

Rich Thelen

## Industrial Arts Show

Members are to bring their items for the Industrial Arts Show at the Heyde Center to the February meeting. We need 20-30 items of good workmanship that have a useful purpose, such as pepper-mills, bowls, rolling pins, spurtles, tool handles, pens, honey dippers, etc.

## **Sanding and Scraping (The Unspoken Taboo of Woodturners)**

By  
Mark F Palma

I went to Catholic school for 8 years. The sisters that served as my teachers were very strict. They wore long habits and their hair was completely hidden under these contraptions of clothing. Rulers were used for corporal punishment and I stayed after school frequently clapping erasers outside.

It was fourth grade and we were given the assignment to prepare a family tree. Well, when I got to aunts and uncles, Uncle Nubs did not seem to fit on any branch, no matter what. I had this "leaf" that just sat there. And, making matters more complex, Nubs was a favorite visitor to our home.

My mother and father sat me down and gently explained (out of earshot of my younger siblings I may add) that Uncle Nubs was "technically" not my uncle. He wasn't married to Aunt Babe, he was betrothed to her, kind of like engagement, but without the ring. It was the family secret never spoken about.

The same seems to be the case for sanding and using scrapers while turning. It's the unspoken element. Well, I admit it, I sand and scrape! There, it's out in the public. I feel an enormous weight has been lifted off my shoulders. Sanding and scraping are both surface enhancement techniques. I am not a proponent of using them in place of good sharpening, cutting and tool control. However, there are times that they save the day in a particular turning project. With highly figured grain, interlocking grain, or just a stubborn piece of wood I find them to be great additional tools in my arsenal.

### **SCRAPING**

I understand that many professional demonstrators and video turners can cut a bowl in one continuous ribbon of wood without any tear out, leaving a glass smooth surface. They also bowl 300 games, run sub-4 minute miles, bat over .500 and have perfect children. In my real world, I get to take out the garbage, shovel snow, and sometimes get ridges and torn grain on my turned items.

A properly shaped and sharpened scraper, held in the correct orientation to the wood can:

- Remove wood quickly,
- Refine a shape
- Clean out a tight corner or shadow line,
- Remove end grain for end grain hollowing,
- Clean the "nub" out of the bottom of a bowl,
- Clean out the bottom corner of a box, bowl, or vessel,
- shear scrape a bowl, and
- hollow out a vessel.

Now, I will let you in on an even bigger secret than Uncle Nubs, most carbide tools are scrapers.

Scrapers need to be sharp to work well. Fortunately, single edge scrapers are straightforward to sharpen. One quick pass on the grinder and you are back at the lathe. Most single edge scrapers are sharpened to an angle of 30-40 degrees. The overall goal is to have some relief angle below the cutting edge, yet plenty of metal supporting the edge.

In researching this article (well "research" may be an exaggeration) there seem to be two camps on sharpening scrapers. Those who look for the wire burr, and those who remove the burr. The wire burr edge (left on the top of a properly sharpened scraper) can cut very aggressively. Unfortunately, the burr edge only lasts for seconds. The good news is sometimes that is all you need! Besides, a quick swipe on the grinder and its right back.

Do you "need" a burr? No, it's optional. A sharp scraper will cut without a burr. How do I know? Well, use a scraper for longer than a minute (after proper sharpening) and guess what, it still cuts soft, fine shavings. Some cuts, such as shear scraping a highly figured bowl can seem to go better without a burr.

Negative rake scrapers seem to be the new vogue in the underworld of sharpening. Ironically, they are not new and have been around for decades. Think of a skew on its side and you have one of the typical negative rake scraper profiles. By lowering the leading edge (or cutting edge, depending on how you think about it), the aggressiveness of the scraper is lessened and it seems more forgiving and controllable.

Negative rake scrapers are used with the tool rest set up so that the tool, when held level, has the cutting edge at center. The built-in downward angle of the bevel of the scraper is the reason for its forgiving nature resulting in a safe cutting position. It is almost impossible to get a catch, and if one does occur, the cutting edge is pulled down and drops clear of the turning wood.

When using a traditional or single edge scraper, raise the tool rest above center so the tool handle is higher than the cutting edge of the tool, which should be at center. (Said another way, your hand is higher than the scraper tip.) This can seem odd, as it is opposite of how we normally cut wood at the lathe. However, scrapers are not a bevel rubbing tools in use.

Scrapers can make light or heavy cuts. Scrapers can be used to remove bulk quantities of wood. Scrapers are particularly skilled of removing large quantities of end grain wood from boxes, goblets and end grain bowls. So don't look at a scraper as only a finishing tool.

Scrapers can make a good cut better. That isn't to say I scrape on every project. What I find is I need to find out how the wood is cutting with a gouge. If a sharp gouge is resulting in tear out, consider trying a scraper. With a fresh edge and a light touch you may find ridges disappear and tear out reduced. I sometimes find that when I have tear out the gouge seems to lift the torn wood fibers on each pass and just make the tear out deeper. A scraper sometimes doesn't seem to have the same lifting effect and lets me cut the area flush.

Scrapers can also do some jobs with remarkable efficiency. Some turners find scraping a dovetail groove for a chuck a faster and more consistent proc-

ess. Scrapers excel in getting into tight areas and next to details such as raised beads.

Scrapers are "catch friendly" tools. I find some turners accomplish a cut with a scraper, when a gouge is frustrating them on the same cut. The dragging nature of their inherent angle of use, is less likely to dig into the wood.

Scrapers come in many profiles, thicknesses, and shapes. They can be easily reconfigured to a special use. So shape them to fit your needs.

I sat down with a pile of scrapers I had accumulated. They were sorted by size, shape and profile. The ones who seem to be the best ones got sharpened and put into service. The odd ball ones are those that you experiment with, shape for a particular use (such as dovetails, ring cutters, pointed scrapers or whatever you need). Really, what do you have to lose?

So dust off and sharpen those scrapers. Spend some time getting reacquainted with this versatile turning tool. Then you too can shout from the rooftops "I scrape and I am proud of it!"

### **SANDING**

Sanding is a relatively new invention in the history of woodworking. Broken glass was used as a scraper for decades before sandpaper was prevalent. Technology has brought significant changes to abrasives, so here is a new look at this often taken for granted product.

Sandpaper is not gold, frankincense or myrrh! Sometimes we treat sandpaper as something just too precious. As has been said by several demonstrators "use abrasives as though someone else is paying for them".

Yes, I know every club has boastful turners who do not need to sand, or never need an abrasive grit coarser than 320 off the tool surface. How many articles, professional demonstrators, video turners and club members say:

- "...I am going to skip showing you how to sand , everyone knows how to do that..."
- "...sanding is boring..."
- "... no one likes to sand so get through it as soon as possible..."
- "...great turners don't need to sand..." or
- "I always power sand..."

Well, let me share two secrets with you:

1. Some of them lie; and
2. No one can tell if the finished piece was turned, scraped or sanded.

Understand that abrasives are a complex topic. Abrasives have changed dramatically. If you understood abrasives at an earlier time of your life, you may not fully understand abrasives today.

All abrasives are not alike! Some things to consider in choosing an abrasive include:

- Is it the US grit system printed on the back or the "P" European grit system?

- What is the best abrasive material to use:
  - o Garnet (normally brown)
  - o Silicon carbide (normally black)
  - o Aluminum Oxide (normally white)
  - o Ceramic (often blue)
  - o Exotics, Synthetics and other cool stuff
  - o Woven materials (green, maroon, gray white)
  - o Steel wool
  - o Others
- Backing material (cloth or paper)
- Backing weight (often given in letters)
- Binding material holding the abrasives to the backing (latex is one of the tougher materials)
- Open coat or closed coat paper
- Serrate and non-serrate abrasives
- Cheap vs. quality paper
- Disc shape (round or scalloped)

Each type of abrasive has advantages and disadvantages, as well as applications where they perform, superior, average, or in a below average manner. So do not grab any paper on sale at the big box retailer or mass discounter and expect a great result.

I am not going to provide you a treatise on abrasives. There are plenty of charts on the internet about abrasive grits numbering systems and application recommendations for different grit types. Do some research, quit being a Luddite and join the 21<sup>st</sup> century!

Here are some suggestions from Mark's shop:

- Abrasives are a consumable! They wear out. A 2" 220 or 320 grit disc may have a life of measured in seconds.
- Abrasive discs get dirty, use an abrasive cleaner to remove dust from discs. Clean discs last longer.
- Think about sanding as refining scratches. Each scratch is a "hump" and a "groove." Think of an lp record album. You are trying to level out the whole surface.

- Watch the flow of dust off the work. If the dust slows down your cutting action has become inefficient. Change your paper if your cutting action slows down noticeably or you feel heat starting to come off the work.
- Abrasives cut; they do not rub, grind, or just magically make a uniform scratch pattern.
- If your paper "gums" up, consider an open coat or serrate paper. These abrasives are designed to gum up less.
- Sand at a slower r.p.m. compared to the speed that you cut the work at. Heat build-up is not your friend when sanding. If you find your fingers getting hot, then you are not doing something right.
- Get the tool rest out of the way when you are sanding. I try to take the tool rest off as an extra safety measure and leave the banjo empty.
- Use a quality, clean and properly fitting dust mask, even if you have dust extraction. If you are coughing more, it may be dust in your lungs!
- Watch you dust trail over your work when sanding. You can see low areas and tear out because the dust will "catch" in these areas and they will remain "white" as you pass over them. If an area doesn't seem to sand out, stop the lathe, and figure out what is going on.
- Think about which grit is your best starting point. Look at the piece, consider the specie of wood, how the gouge gods were treating you and pick the best grit.
- If your initial choice isn't doing the job, go one courser.
- When you finish your first grit stop the lathe and look for radial scratches. If you see radial scratches, sand them out with the same grit as you just used for sanding.
- Note that finer grits will not get rid of radial scratches from coarser grit. They may wear down the "bumps" but the grooves are still there.
- Don't skip grits. If I start at 120, I go:
  - o 120
  - o 150 (the forgotten grit)
  - o 180
  - o 220

- o 320
  - o 400
  - o 600
  - o 1000
  - o Non-abrasive pad
- Sometimes sanding isn't fixing the problem. If so, recut the area.
  - Not everything can be power sanded. Sometimes you need to sand off the lathe.
  - Just because you started power sanding it doesn't mean you have to power sand every grit. I sometimes power sand until 180 and thereafter hand sand.
  - Sometimes I use ceramic grit for my coarsest grit, then shift to aluminum oxide paper, and shift to serrate for my finer grits.
  - If you want to cut down on dust, you can dip your abrasive in wax and sand with the wax.
  - Not everything can be sanded on the lathe. Sometimes you need to put on some good music and sit down, chill out and sand!

So what do I normally do?

1. Power sand bowls through the first three grits. Then I sand the last few grits.
2. Start with a ceramic disc for my coarsest grit. Then I switch to aluminum oxide through 180, and serrate for 220 or finer.
3. Keep a disc cleaner right next to the lathe and use it all the time.
4. Use a non-abrasive pad to wipe off the work as the last step. I use either white 3M non-abrasive pads or cheap pads from a "dollar" store. This is not a place where I find quality impacts the outcome. I use them to burnish the final surface and look hard at the overall outcome.
5. Abranet is my preferred abrasive for exotic woods and non-wood materials.
6. 6" PSA (pressure sensitive adhesive) serrate discs are my favorite for hand sanding on the lathe. This gives me a hard, sharp edge (the fold) and a soft edge (the 1/2 round). It costs more, but I use the abrasive more efficiently. It also gives me two sides. I use one side at a time.

7. I view abrasives as a system and do not view them as individual pieces of paper (or cloth). So, I throw away the used abrasives at the end of a project and start with new for the next.
8. A wastebasket next to the lathe allows me to throw away worn abrasives and not confuse the new and the old.
9. I write on the face of my abrasives with magic marker the grit in big letters so I can tell what is going on while I am in the throes of turning. I start with them in order and use an office binding clip to keep them in order at the lathe.
10. Use the off switch and take time to inspect your progress. Areas of tear out may require hand sanding (or some judicious power sanding).
11. If I see a sanding mistake that got missed that got missed, I say "ugh" and then go back and fix it. If that means going through all the grits again, then that is the price of perfection
12. A change of mindset is in order regarding sanding. I think of sanding as of equal importance to every other step in turning.
13. My goal is the overall quality of the end product. I do not compromise my work (I give it away; I do not sell my work). If I need to spend extra time sanding, it's ok. I am still hanging out in my shop.

So, once we focus on the end product, rather than the taboos of sanding and scraping, we open up a world of possibilities. Have fun in your shop. 🙌

**Unfortunately, the footnotes to this article were not carried over into the newsletter which was really a loss for all who know the author.**

## **Interesting and Useful Website**

**[Woodturningvideosplus.com/woodturning-tips.html](http://Woodturningvideosplus.com/woodturning-tips.html)**

Though this is a site to sell DVDs and ebooks, the site has an array of free and useful information on a variety of woodturning topics such as: Using Wood Dyes; Dealing with Torn Grain; Reducing Vibration When Using Scrapers; Faceplates: Choosing The Right Types; Drying Green Wood Roughouts In Paper Bags with Forced Air and many, many more topics. Check it out.

# SHOW AND TELL



**Joe Nycz with Poplar bowl, Poplar vase and bracelet holder**



**Duane Walker with a weighted yarn bowl of Black Cherry**



**Randy Patzke vase with metallic finish**

**Jeff Fagen with a Maple bowl hollow form and a Mesquite hollow form**



**Paul Meske with a pencil holder with Tru-Oil**



**Mark Palma with a Tuzedo bowl with texture and white pearl and bowl with watch parts in the rim**



**Dick Prouty with 2 Celtic Knot ornaments**



**Tom Leonard with pens of Desert Ironwood, Brazilian Pepperwood and Balsa Wood**

# GALLERY



## PEN WOOD OF THE MONTH

Common Name(s): **American Chestnut**

Scientific Name: *Castanea dentata*

Distribution: Eastern United States

Tree Size: 100-120 ft (30-37 m) tall, 5-7 ft (1.5-2.0 m) trunk diameter\*

\*Because of the chestnut blight of the early 1900s, very few trees of this size currently exist

**Color/Appearance:** Heartwood is a light to medium brown, darkening to a reddish brown with age. Narrow sapwood is well-defined and is pale white to light brown. Wormy Chestnut is also seen, which is chestnut that has been damaged by insects, leaving holes and other discoloration in the wood.



**Grain/Texture:** Grain is straight to spiral or interlocked. With a coarse, uneven texture.

**Endgrain:** Ring-porous; 2-4 rows of large, exclusively solitary early-wood pores, numerous small latewood pores in dendritic arrangement; tyloses common; growth rings distinct; rays not visible without lens; apotracheal parenchyma diffuse-in-aggregates (short lines between rays).

**Rot Resistance:** Rated as very durable, though many trees killed by the chestnut blight of the early 1900s were left standing and eventually were damaged by insects.

**Workability:** Overall easy to work with both hand and machine tools. Chestnut splits easily, so care must be taken in nailing and screwing the wood. Due to its coarse texture, turning is mediocre. Glues, stains, and finishes well.

**Odor:** No characteristic odor.

**Allergies/Toxicity:** Although no adverse health effects have specifically been reported for American Chestnut (*Castanea dentata*), other types of Chestnut

in the *Castanea* genus (*C. sativa* and *C. mollissima*) have been reported to cause skin irritation. See the articles [Wood Allergies and Toxicity](#) and [Wood Dust Safety](#) for more information.

**Pricing/Availability:** Because of the blight wiping out nearly all mature American Chestnut trees, its lumber is both rare and (relatively) valuable. Wormy Chestnut in particular is usually salvaged from old barns and other structures, and reprocessed and sold as reclaimed lumber. Prices are likely to be high for a domestic hardwood.

**Sustainability:** This wood species is not listed in the CITES Appendices or on the IUCN Red List of Threatened Species.

**Common Uses:** Flooring, rustic furniture, shingles, and reclaimed lumber.

**Comments:** Caused by an accidentally introduced Asian bark fungus (*Cryphonectria parasitica*), the chestnut blight of the early 1900s was responsible for killing over three billion chestnut trees. The wood in these standing trees was subsequently damaged by insects, leaving holes and discoloration. The trees were then subsequently harvested and converted into lumber (called Wormy Chestnut). Between the nail holes, discoloration, worm and insect damage, Wormy Chestnut is preferred in applications where a rustic or unpolished appearance is desired.

**Related Species:**

- Sweet Chestnut (*Castanea sativa*)
- Wormy Chestnut

***From the Wood Database ([www.wood-database.com](http://www.wood-database.com))***

**Pen Type:**

This pen type is called Patrizio, a term deriving from patrician—the governing elite, member of territorial nobility. I was curious as to the background of why pens styles are called what they are. Most say that the style reflects whatever but this one gave more information. We can put that in our trivia books to use later to amaze and confound those who could probably care less (after all, that is what trivia is all about).



# A Circle Cutting Jig That You Can Build

by Fred Holder

In a recent issue of CREATIVE WOOD, the official publication of the National Association of Woodworkers in New Zealand, Dick Veitch had an article on making a circle-cutting jig. It was so simple that I had to try my hand at making one.

This article is about my approach to making a circle-cutting jig using the basic concepts described and illustrated in Dick's article. The jig is shown in operation in the photo below while cutting a disk from a 3/4" thick board. This disk was to become a bowl made by cutting circles at a 45-degree angle and stacking them to produce a bowl blank from a flat board. Cutting the original circle was the first stage in this operation.



**The Circle Cutting Jig being used to cut a round disk from a flat board. This rig worked best on flat boards because my bandsaw blade tended to wander a bit as the circle cutting process proceeded.**

Each bandsaw will be a bit different, so no dimensions are given. The baseboard must be at least as large as the table of the bandsaw. I actually made mine somewhat larger than the bandsaw table.

I began by mounting a strip of wood that would fit into the guide groove on my bandsaw table. I then cut a slot in the baseboard using the guide strip to ensure the cut would be in the right place when the board was mounted on the bandsaw table.

I decided where I wanted the board to be located on the table and attached a stop that would limit the travel of the baseboard toward the back of the bandsaw. The backside of the baseboard is shown in the following photograph. You can see the strip of mount that goes into my bandsaw slot and you can see my stop (at the top in a darker brown color).



**Bottom side of the base board for the circle cutting jig.**

The guide strip and the stop determined where the board would fit on the bandsaw table. I next cut a swiveling piece that would carry the piece of wood to be cut into a circle. I wanted the pivot point of this part of the jig to be in line with the cutting edge of the bandsaw blade.

So, with the baseboard in place, I used a square to mark a line across the board that was the cutting edge of the saw blade. I then sawed out the swinging board leaving an offset for the pivot point. I drilled a hole

where the pivot point bolt would be located and then aligned the rotating board so that the hole was over the center of the blade position line and drilled a hole through the base board, counter sunk the back side for the bolt head and attached the two pieces together as shown in the photo below.



**The two pieces have been attached to one another with a pivot bolt and are ready to make the saw cut into the swinging board.**

I then mounted the jig onto the bandsaw table, started the saw and swung the swinging board in to make a saw cut into the swinging board. I had drawn a line on the swinging board that ran through the centerline of the pivot hole. This line was in about one inch from the edge of the board. When the saw cut reached this line, I stopped the cut and installed a stop that would limit the swing. The top of the jig is shown below.

*Continued on page 13*

## **I Didn't Know That**

According to an article in the latest **Woodcraft Magazine** (Feb/March 2016) titled **WoodSense: Spotlight on Walnut**, Butternut is in the same family as Walnut—Juglans. It is “the other side of the color and price spectrum” and “sometimes referred to as the white or poor man’s walnut.”



**This view shows the top side of the jig after it was fully assembled.**

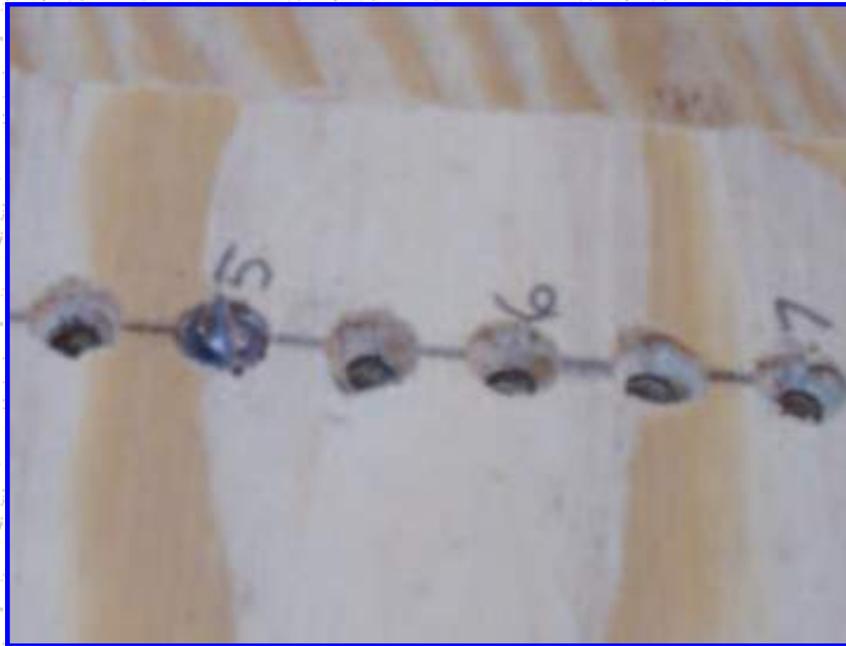
Now, I simply had to add some points on which the wood to be cut could rotate while being cut. These holes were located on the line that passed through the pivot point of the swinging board. I chose to space them 1/2 inch apart and numbered the whole inch locations as shown in the following photograph.

To rotate the wood, I needed to add something that could fit into the holes above. I decided to use duplex nails since they have a double head on them and can be removed easily.

*Continued on page 14*

## **2016 Dues are Due**

Dues for 2016 are due. If not received by the April, meeting, 2015 members will be deleted from the 2016 active member list. They will be re-instated to the active member list when we receive their 2016 dues. It is really important for the club to be able to pay it's bills and have the money to buy needed equipment and supplies for its members use.



I made two different pivot pins: one shown in the five inch position in the above photo; the other was a bit longer for thicker blocks of wood. I used the short one to cut flat boards and the longer one to cut half log sections as shown below.



This certainly made it much easier to cut a 1/2 log section into a round circle than trying to use a cardboard disk to guide the cut.



**This photo shows the finished piece. Note the duplex nail sticking out of the bottom of the turning blank.**

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## **Woodturning Expertise Help Wanted**

**From Bob Mayfield <[bmayfield001@centurytel.net](mailto:bmayfield001@centurytel.net)>**

I'd like to exchange a cherry burl for time with a wood turner and his/her lathe. Anyone interested just email or call 715-225-9029. Thanks.

## COMING EVENTS

**Meetings are first Wednesday of the month. Open house—Coffee and Chips - is the second Saturday of the month.**

### **Meeting Dates and Demos**

February 3—Joe Nycz—Grail cup  
March 2—Wendell Ziegler—Tops and Misc items  
April 6—Mark Palma—Plywood bowl  
May 4—John Layde—Bowl from a board  
June 1—Rick Bauer—To Be Announced  
July 6—Bob Eberhardt—To Be Announced  
August 3—Jeff Fegan—Something musical and something on the lathe  
September 7—To Be Announced  
October 5—To Be Announced  
November 2—To Be Announced  
December 7—To Be Announced

### **Open House-Coffee and Chips Dates**

February 13  
March 12  
April 9  
May 14  
June 11  
July 9  
August 13  
September 10  
October 8  
November 12  
December 10

### **Board of Directors for 2015**

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