Director Notes:

View distribution of archers, coaches, and clubs that might be able to bring manpower and support using this map: <http://www.texasarchery.org/L1/GMOA.htm#Members> .

Hosting a tournament has a few fundamental requirements:

Space -

for outdoor events, essentially you need a flat grassy area similar to a large soccer field or football field.

Some events have arrows being shot at targets 90 meters away (about 100 yards).

One event called "Clout Archery" is held just once or twice a year, requires a field of 180 yards in length, but usually has smaller attendance numbers.

Indoor events are held from November through March, typically.

Indoor shooting distances are 18 meters to 25 meters, with a need for space behind the shooting line where archers stand - 10 yards for bows, then space for seating for both archers and spectators.

Most of the following are considerations for our outdoor tournaments. The "TOTS" (Texas Outdoor Target Series) are single day events held on Saturdays, throughout Texas, aimed primarily at youth archers but does include adults as well.  TSAA tries to hold at least 5 of these each summer from March through September.  We also hold at least two outdoor championship events, each offers a Friday PM practice followed by two days of competition shooting.  We do tend to try and hold them in archer-dense areas of Texas, rotating around as much as possible, to try and even out the driving impact that the size of Texas imposes on us.

Infrastructure -

Adequate parking.

Marked handicapped parking slots. Insure curb breaks, or else put down plywood ramp and secure with spikes so it does not shift during use.

Place orange traffic cones as needed to insure a traffic pathway for archers to and from field.

Adequate trash receptacles.

Nearby food sources are a plus.

Electrical 110v service is a plus but not required, as we usually have battery-driven PA and timing light systems.

Nearby hotel service is also important, especially if the event is a multi-day event. (Some are single-day events).

Families:

Archery involves athletes from 6 years of age to 80+ (!) and often several family members will participate.

In the past we have worked with cities for a state championship, and they were able to identify a flagship hotel which we endorsed with the membership in exchange for several comped rooms for the judges and Director of shooting.

It is a bonus if there are other family-oriented activities & attractions - museums, parks, miniature golf, etc. nearby.

Safety:

TSAA archery adheres to World Archery and USA Archery organizational rules, and is therefore one of the safest sports enjoyed in the United States, according to insurance actuarial tables (far safer than baseball, soccer, basketball, for example).

Noise:

There is minimal noise associated with TSAA events, though we often will play short interludes of music on the field for the younger archers in between shooting of arrows, while scoring takes place.   The only other sounds are the soft thunks of arrows striking foam bales, and the strum of the bow strings

All shooting is controlled by a referee whistle. (1, 2, or 3 "tweets")

Materials:

Each 3 to 4 archers require one target bale and stand which must be staked down with several foot long nails to secure against wind gusts.

Target numbers:  Each target needs a numbered plaque, 30 cm tall digits (12 inches). Odd numbers are black on yellow, even numbers are yellow on black.  A matching numbered peg at the shooting line is needed. (Archer standing at peg #1 shoots at target #1, etc.)

Wind flags for both each target and for each side of the field are required (small Texas & US flags on wooden sticks for example).

These are in place for the duration of the tournament, and therefore the area should be a secure area devoid of vandalism.

Sunshade:

During extremes of climate (ie, July-August) the TSAA may deploy 3 or 4, 10' x 20' tents for shade.

Many families will also bring popup tents, usually 10x10, and these are placed in an organized fashion behind the shooting line and must be spiked down or otherwise belayed for safety from wind gusts.

The field must be of sufficient size to be clear at least 30 yards behind the shooting line for the required waiting area, bow area, and these tents.  In essence, this defines a field that is about 100 yards by 100 yards square for most events.

Field Preparation:

The field must be laid out according to specific dimensions, squared lines, and target locator marks must be to within 1 foot tolerance at 70 meters. (very precise, in other words).

It must be free of pedestrian hazards such as ditches, goal posts in the shooting area, although such things as sprinkler heads can be orange-paint flagged for safety.

The day prior to competition:

The field must be marked/demarcated with white chalk/paint lines, a base shooting line the archers will stand on, and then cross lines usually at 10 yard intervals, from the base shooting line out to 70 meters.

Park Departments that can provide such marking equipment are a definite plus in TSAA considerations for hosts.

Mowing of the grass just prior to the event must be coordinated with the director of the event (just as with baseball fields, directions of mow lines are very important in archery field layout).

The TSAA has adequate bales and stands for most events, but these are often NOT where the event is being held, and the tournament director is responsible for coordinating the transportation of these to and from the event location.  Often archery clubs and JOAD clubs, 4-H clubs in the vicinity of the event will be able to contribute/loan for a small fee, more bales and stands as needed.  Our primary storage depot is on a farm in the Bryan/College Station area.

**TO DO Section:**

Keep track of things that need to be resolved as time grows closer, some will not be able to be dealt with until the “right” time.

Need a large banner to post alongside the parkway for publicity. "spectators welcome"....

Target Needs: Plan ONE 122cm target for every bale, plus 4 extra. Plan 1 80cm target for every bale, will end up with extra because better archers/compounders will all use the 6-ring patch targets. Allow 1 patch for each compounder – about 20 needed for 50 archers in 2012.   
**Site Preparation:**

Metal-detect for any pipes in area where the popup tents will go and mark hits with red/pink paint. And keep handy during competition to locate arrows.

Use white paint to line up popups….insure all popups are tight together, with aisles. Insure stakes are used in case of wind gusts. City regulations may require lanes, so plan for gaps every 3 tents that is at least 4 feet of clear aisle.

Mark handicapped parking slots. Insure curb breaks, or else put down plywood ramp and secure with spikes so it does not shift during use. Place orange traffic cones as needed to insure a traffic pathway for archers to and from field.

Provide in the design of the field for space for the DOS tent with a 10 yard wide alley to separate male and female, in the middle of the field. Best practice is all 90m/70m starting distances on one side, 60m and down on the other.

We have a large space, a boulevard with no path worn, no sidewalk, in short no pedestrians. Be sure to inform group to stop shooting, remind judges to 3-whistle if any pedestrians are seen EVER.

NASP fun shoot:   
Identify all total novices, and plan to have volunteers work directly with them to shoot well and safely. Validate the number of NASP bales/targets needed and a way to suspend the targets properly.   
Use multiple target stands to support the 4’ square bales.   
Promote volunteerism for this

Insure score cards are properly designed, plenty of examples on the documents page under “scorecards”. Edit as desired.

Numbering for consistency :)

Target Stands and bales: Let's start with a guess of 25 bales needed. (Non-Nasp, but they can be used for NASP prn) Ask Tony: If we do need 25, please tell me how many can you have/provide and how many we need to bring up from the TSAA trailer at Eagle Lake? Stands need to be FITA-legal, as in "the center of the bale must be 130 cm (+/- 5cm) above the ground, and the lean must be about 10 to 15 degrees from vertical (book two, 7.1.1.3 & 4)

Target numbers: Each target needs a numbered plaque, 30 cm tall digits (12 inches). Odd numbers are black on yellow, even numbers are yellow on black, per FITA book two, 7.2.3.2 , 2011 edition. Need 30 plaques. non-serif stencils work ok to paint.

Target Bale Flags: Each target needs a colored flag. Each bale's flag color must be different from both neighboring bales. The flag must be 40 cm above the bale, and the fabric light and no longer than 30 cm on any length (in calm it cannot touch the bale/obscure the target face) - need 32 (need backups) - book two,7.2.5.10 – FITA recommends black and yellow alternating but it is not required.

Lightweight plastic fabric table-cloths from a Party Store or from a Michaels is the cheapest, but not color stable from sun washout.

Lane Pegs: Each target needs a numbered peg at the shooting line corresponding to the number at the bale. - book two,7.1.1.8

TSAA has target numbers and lane numbers up to 25 or so.

Two colored windsocks or flags (US and Texas) at 10 to 15 height above ground, one each side of field at around midpoint - 40 meters . If we have a 3rd it goes in the middle neutral lane in front of the DOS.

Card Table and popup tent to house the DOS and light controls. It is good if the tent and table and chairs (2) can be elevated above ground, say put on a couple of target bales?

Paint Can holder - spray cans held inverted in a stick/wheel device, to enable painting lanes. 10 cans minimum needed for the field of 25 targets - (Purchased extra, return extra to Home Depot store for credit. Cans are designed to be sprayed upside down and lock into the TSAA wheelcart. Use White color.

Best to have rubber or latex gloves to avoid white paint on hands, and old tennis shoes you don't mind a little overspray paint on. TRY NOT TO SPRAY PAINT ON THE TAPE MEASURES!! Use three 100-meter tape measures, and 15 or so Texas Nails (foot long spikes).

SOLID Lines:

Horizontal: You must mark as solid lines the shooting line, the 3-meter line North (in front) of the shooting line, the waiting line 5 meters south of the shooting line, and the equipment line 10 meters south of the shooting line. Also place a line (can be another color) to indicate the “tents begin here” line. For USAT tournaments, also mark a 1 meter wide line just south of the waiting line for photography line.

You will mark a solid horizontal at 40 meters, across the field. This is the point in the triangle for squaring the field, and will be confirmation points at 4 places. Each sideline, and each side of the DOS alley.

Vertical: These start at the shooting line and extend out towards the targets.

Mandatory Solids: Each sideline. Each interior side of the DOS Alley.

You must also provide vertical lines between targets, at least for every pair of targets. If the grass has been cut adversely, creating optical crookedness, then you need to paint between each target, out to 50 meters at least. Most archers will not be able to see lines any further than about 50 meters so going to 90 meters will not be necessary under most conditions. EXCEPTION: for USAT events, take the lines all the way.

It is ideal to mark a vertical line between each target – this will add probably 6 to 8 more cans of paint, but remember that the lines only need to go out as far as the target’s furthest location (which varies for a 4-distance FITA).

Instead of every target alley, you can mark a line between every pair or even THIRD target bale, from the shooting line to the 50 meter line. Need target assignment map in order to know where these are. Don’t waste paint where the targets won’t go.

Intermittent Dash lines when not painting every alley: All other lanes will have "starter lines out to 5 meters(past the 3-meter line) and 2-foot cross-marks at the intersection of every center lane and distance (X marks the spot where the target center rests over)

Need at least two hammers, including one hand sledge.

Every stand needs a long rope to anchor it to the ground against wind, requires a steel spike. If danger of 180 degree wind changes, TWO stakedowns are used, one front and one back. Extra roll of heavy cord for use is a good idea to repair any flaws.

Plan TWO spikes per target, and use spikes to hold the strings during layout of the field. That is about 50 spikes.

Every target bale must be anchored reliably to the stand to prevent the bale from blowing over and destroying arrows. This is a loop of nylon string of at least 60 pound test, long enough to reach around the top 1/3 of the target bale and be tied at each end to the top joints of the target stands.

IF HOLDING A CLOUT ROUND:  
Compound males shoot 185m, Recurve Males shoot 165m, Recurve Females and Juniors shoot 125m, and all other youth shoot 110m. So four scoring locations are needed. They should NOT be in a straight line from the shooting line, but rather staggered from side to side by at least 20 meters each to insure archers can tell where their arrows are landing.

Clout scoring cords. Need 4, non-stretch straps that are marked x6 with ink every 4' 3" from the center of the peg. Loop or steel ring at end of cord fits over the clout pin and is part of measurement markings.

Mark 6 x 4’3” on each Clout scoring strap.

The clout rings do not HAVE to be marked - takes a LOT of paint to do so, but if we do, follow target color schemes (gold/red/blue/black/white). Maybe just paint the kids' clout scoring rings? Get gold, red, blue, and black cans – one each. If you want to paint the rings, get a $25 stick-with-a-wheel paint can holder from Home Depot paint department. It goes in a circle very nicely. Put a Texas Nail at the center, use lightweight nylon string at 4’3” to go in a circle about the nail, paint a color. Repeat 4 times with different colors, 4’3” more distant each time. Put the wooden clout stake (do NOT use a rebar spike- breaks arrows) in the middle with a flag that is very lightweight so that with the slightest breeze the flag can be seen.

Clout Pins - 4 wooden stakes with light colored fabric flags, triangular in shape, 80cm (32 inch on the stake) tall, 30cm (12inch) in length/width. The bottom edge of flag on stake cannot be more than 50cm (1ft 6") above ground, so flag CAN/will touch the ground. The flag is actually called “The Clout”, not the stick.

Timetable:

Confirm location is available.

Insure location is appropriate, say, watered, or mowed.

If mowed, insure the tractor moves parallel to the shooting line to avoid convergent or divergent lines that mess with archers’ minds.

Confirm toilet facilities. Obtain electricity and running water opportunities if possible.

If 110v is needed, obtain a volunteer generator. If using generator, delegate responsibility of safe and continual operation, best technique is to have the donor or give donor the honor/responsibility of insuring safe operation and refueling – oil, gasoline, and sound abatement. If loud, placing a target bale or several bales of hay to block the sound from the tents is desirable.

Insure DOS has popup tent, table, and at least two comfortable, safe, chairs easy to arise from, not sling chairs.

FITA and best practice dictates that for world championships there must be an alley of 10 meters between the male and female shooters. Use this alley to run wires for the lights and place the two columns of traffic lights in this alley, facing appropriately. Insure that as the targets are moved closer to the shooting line that targets do not block the view of the lights for the ends of the shooting line. Once placed, get confirmation from the archers at each end that they can clearly see the lighting.

Insure there is an A/B placard, if two lines are to be used. It is best to use a single line if the space and resources allow. Assign 3 archers per target for this if possible then you don’t have to bother with two lines.

**To mark the field properly:**

Set the shooting line first.

Determine the width this line needs to be, using a formula. You have some leeway in that if you are shooting a single line with three archers per target you can make the targets slightly further apart to insure the archer has the minimum legal required space of 32 inches. For simplicity, 3 x 32 = 96 inches wide minimum, or about 2.5m for the width of each target shooting space.

So you would start at the outside border, measure in 2.5m and place a cross to indicate the bottom point of the first target. The next mark is 2.5m (5m from sideline) is the first ALLEY VERTICAL LINE PAINTED OUT TO 50m. Another 2.5m you place another hash mark forming a cross, this is the center of target 2. And so on.

To calculate how long your shooting line must be (and this is the FIRST LINE YOU PAINT!), multiply the number of targets you will have times 2.5, ADD 5m for the two sideline gaps, and 10m for the DOS Alley.

PAINT NUMBER ONE: paint a wide, solid line that will be the shooting line. As an example: We needed 22 targets, including 4 at 90m and 7 at 70m, the rest at shorter distances.

We shot a single line with 3 archers per target. If 3 on target at one time, each archer must have at least 32 inches, so the targets are set at 1.5 meters apart, starting at 0, the sideline where no one stands.

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| Targ# | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | DOS |
| Alley-mark |  | **6** |  | **12** |  | **18** |  | **24** |  | **30** |  | **36** | Alley-10m TOTAL wide |
| Cross-mark-target sits over | 1.5m | 4.5m | 7.5m | 10.5m | 13.5m | 16.5m | 19.5 | 22.5 | 25.5 | 28.5 | 31.5 | 34.5 | NO Marks |
| 5 m waiting line |  |  |  |  |  |  |  |  |  |  |  |  | DOS TENT HERE |
| 5 m bow area |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tent Area |  |  |  |  |  |  |  |  |  |  |  |  |  |

TO FIND THE SIDES, you must determine the number of bales needed for the tournament. Estimate where the neutral alley should fall – there might be 11 on the left and 12 needed on the right. The two sides of the neutral alley are used with the two outside lines to create four parallel lines from which all target positions are set. These four lines must be parallel and the same length!

You have to make a perfectly square box on the field for all competition to be contained within. No arrows are to be launched from outside of the box nor aimed to be shot/land outside of the defined box. All four corners of the box must be right-angles to insure all the targets will be consistently placed. In the process of laying the corners and performing the measures, my goal is to insure that no tape measure has to be moved more than necessary. AVOID SPRAYING PAINT ON THE TAPE! Cross marks are done free-hand. You will take a visual on where the point is, then hold the tape measure up in the air enough to spray under the tape. Don’t pull too high or you destroy the accuracy of the measurements.

FIRST PAINT: ONCE YOU KNOW THE WIDTH NEEDED FOR THE SHOOTING LINE (remember that no archer stands on the outside corners of either side!), paint this line and subdivide the marks for each target center and each alley, as well as the DOS Alley sidelines. Now mark the outside left sideline as a solid vertical going out to 40 meters, using the 3x4x5 triangle to square the line. How so?

A right angle corner is created by making a triangle of 30-40-50, where 50 is the hypotenuse. You will use three tape measures 100 meters long, graduated in meters - to make FOUR triangles (one at a time), and stake the three points with spikes. Do the left-most sideline first using the shooting line as the 30 meter leg, the sideline as the 40m leg, and confirm the hypotenuse is 50 meters. MOVE THE END OF THE 40M POINT IN OR OUT TO MAKE A PERFECT 50M HYPOTENUSE and place spikes at the three points. Once it is squared, PAINT the vertical line to 40 meters and make cross marks at:

3m, 20m, 30m and 40m. Measure out to 70 meters and place a pin at this point. Do NOT paint any other cross marks yet.

Go to the opposite side of the field and repeat the baseline right angle, set the pins at the corner, 30m, and 40m, and confirm the 50m hypotenuse. Note that at EACH of the two pins on the shooting line should have fallen on the 30m mark you already painted. (this is a double-check). BEFORE you paint the sideline crossmarks at 3m, 20m, 30m, and 40m, place a pin at 40m, and then measure across the field to the other 40m pin. Insure it is exactly the same width as the shooting line width. For example, the width was 36 +36 + 10 = 82 meters wide.

Once you confirm 82m at baseline and at 40m, then paint a solid line out to 50 meters and then cross-mark the right sideline at 3m, 10, 15, 20m, 25, 30m, 40, 50m, 60m, and 70m. You need the shorter distance crossmarks for the youth archer distances which are NOT needed on the adult(left) side of the field.

Move to the inner DOS Alley right-hand border, and “flip” the triangle, so that the right-angle corner is on the DOS alley border, and 30 meters is towards the right-hand outside borderline. Notice that mathematically the 30m pin should be right on the 6m hashmark. Move the 40m pin as needed to get the hypotenuse to 50m. THERE WILL BE SOME VARIATION UNLESS YOUR FIELD IS A BILLIARD TABLE SMOOTH LEVEL SURFACE! Place a pin at 50m, paint a solid vertical line out to 50m, and paint cross-hatches on the DOS Alley line at 3, 10, 15, 20, 25, 30, 40, 50, 60, and 70 meters from the baseline.

Likewise, make the 4th and last right-triangle for the left border of the DOS Alley, and again the 30m pin should end up right smack-dab on the 6m crosshatch on the shooting line if you place the right-angle pin on the DOS alley base. Set the hypotenuse to 50 meters again, and paint a solid line out to 50 meters, and paint cross marks at 3m, 20m, 30m, 50, 60m, 70m, and 90m.

You will then overlay the triangle long leg line with a string pre-marked to all target distances possible during the tournament. Spike the string at one corner of the field, and stretch it very tightly to insure straight lines are laid. When tight, plucking the string can help make it straight.

Insure that the triangle apex is at the same distance as what was used to set these up originally, and that the base leg is likewise the same. The hypotenuse should then match the 32 \*42 = 52 formula. Adjust the angle of the long leg(sideline) until it matches this formula for each of the four triangles.

Take strings from the shooting line to 90 meters on all four spines of the long legs of the triangles. Insure the distance between the two outside border spines are perfect, the precise same as the shooting line.

Once the four spines of the field have been painted, each line must be marked at all possible distances with a cross-hatch of a foot long stripe. Each side should be double-checked by the other side’s people.  
those marks must be, starting at the shooting line, are in meters at:  
3,10,15,20,25,30,40,50,60,70, 90, and 110(safety distance).

This works best if strings are stretched from peg at 0 to peg at 90, and then spray-paint marked for each distance, with a sharpie line on the paint for precision. 90 at setup and 90 on the field, all marks should be precise since the string is stretched to the same distance. If you need to lay out to 110m, then use tapes to add another 20 meters beyond 90. The 110m line does not have to be critical like the 0 to 90 meter distances are.

Once the four spines are confirmed as identical and parallel to each other AND to right angle to the shooting line, then the interior cross-hatches can be laid down.

A pre-marked, non-stretchy cord is stretched from side to side starting at the longest or shortest distance. The cord must be marked with the dead-center of each target. The center corridor marks, starting from one side, are at:

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| Cross-mark-target sits over | 1.5m | 4.5m | 7.5m | 10.5m | 13.5m | 16.5m | 19.5 | 22.5 | 25.5 | 28.5 | 31.5 | 34.5 | NO Marks |
| 5 m waiting line |  |  |  |  |  |  |  |  |  |  |  |  | DOS TENT HERE |
| 5 m bow area |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tent Area |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 0 | 3’4” | 6’5” | 13’ | 19.5 | 26 | 32.5 | 39 | 455 | 52 | 58.5 | 65 | 71.5 | 78 | 84.5 | 91 | 97.5 | 104 | 110.5 | 117 |

If shooting a single line of 2 archers per target, or else 2 lines of 2, then each target bale corridor is 6 ½ feet wide, and a pair of archers on line each gets 3 ¼ feet.

Worksheet for field layout – bold vertical lines are the alley markers to be painted out to 50 -70 meters

THIS IS THE LEFT HALF OF THE FIELD (DOS ALLEY IS ALWAYS IN THE MIDDLE.) Flip for the right hand.

For the alleys and cross-marks for target positions, s.Start measuring from each sideline, already painted.

First cross (target belly position) is at 1.5 meters. Next is 4.5 meters aside, giving three archers, 2 m a piece. HUGE space.

At 12th target, start the DOS alley of 10 meters. So measure each 12 targets from the respective sideline.

The entire field width should be 36 + 36 + 10 meters = 82 meters side border to side border.

1. Lay the shooting line, paint completely, 82 meters wide, place cross hatches ON TARGET CENTER AND “T” ON EACH ALLEY POSITION.
2. On the shooting line, starting at the outside, mark the table indicated above, working to the middle. Put a cross for the target center, and a “T” for the alley dividers.
3. THEN Start from the other side at baseline and repeat. You should end up with a 10 meter alley in the middle for the DOS tent.
4. Mark back from shooting line to 5M, 10M, 15M, on both sidelines to paint the solid waiting, bow, and tent lines from sideline inwards to 36 meters, omit lines in the DOS alley. DOS must have clear line of site throughout the field including waiting line, so the tent must be in the no-mans land between the waiting line and the shooting line, including several feet into the field so that visual of the length of the line is clear. Put checkin tent right behind the dos tent. These 3 lines do NOT need any cross-marks.
5. ON THE BASELINE, lay the right-triangle for left side/end, 30x40x50, on the shooting line and leave the points staked when you remove the ropes. 30 meter line goes on the shooting line, 40 meter out the sideline, and the 50 meter line becomes the hypotenuse of the right triangle. This signifies a square corner, and 4 of these SHOULD make a decent square box of a competition field. You must TEST this theory.
6. Repeat for the Right side/end, stake the 3 points with large spikes, remove the triangle but leave the spikes and place a string 6 inches inside to use as paint guide between the spikes. Once a string is laid out lengthways from 0 to 90 meters, after each measure you will use it for all length continual line paints such as alleys. There will be TWO spikes at the base corners. Insure the wheel of the painter is on the string, and that the spray comes down on the “real” corner spike before painting the outside border line.
7. BEFORE PAINTING: At the 40 meter mark (the long sideline spike), measure the width of the two long points, from one sideline to the other and insure they are 82 meters wide. If not, adjust the two long points an equal amount (halvsies) to bring the four points into square. THEN….measure out to 90 meters and verify width there as well.
8. Hand-paint a “T” intersections at 40 meters and 90m on each end/side. We want consistent marks on the perimeter BEFORE we paint any interior marks.
9. Again, after 40 meters you go out to 90, measure to confirm 82 meters wide, and only then repeat the cross-marks across the field at 40 m and 90 m CAREFULLY. These 90m crossmarks should be at identical spaces to the shooting lines’ crossmarks! A string stretched from 90 to baseline should cross over the 40 meter cross marks properly. This verification must be assured before any interior marks are laid out.
10. Then stretch a string from each target position per the table, between 90 and shooting line, have volunteers man the tape measure, one at each target bale position, and spray paint with colored pain all cross markers. 90 should be done, then move to 70, 60, 50, 40, 30 by moving the tape in 10 meters, etc. as needed. DO NOT PAINT THE TAPE!. The targets will site above these crosses. When the string is stretched down the field, verify the width from the sideline each position to make sure you are on course before spraying any cross hatches.
11. Also be aware that if a target alley never goes out beyond, say 50 meters, there is no reason to mark it’s 60,70,90 marks. Refer to the grid design for target assignments.
12. After squaring, mark every other ALLEY intersection by moving inwards 6 meters at a time – eac h intersection will be where the target sits. 0,6,12,18,24,30,36, to the middle. Start first from one side and then from the other.
13. For all target cross-hatches, use A COLORED SPRAY PAINT, use the tape measure, visually spot the cross, then LIFT THE TAPE MEASURE OUT OF THE WAY OF THE PAINT! DO NOT PAINT THE TAPE MEASURE. CARRY PAPER TOWELS TO WIPE WET PAINT OFF OF TAPE IMMEDIATELY. Use gloves to avoid paint on hand and don’t spray feet/shoes.
14. The ALLEYS ARE PAINTED FROM THE SHOOTING LINE TO 30 METERS OUT, starting at 0, 6, 12,18,24,30,36 – every 6 meters. Alleys do not have crossmarks on them. They do not have to be solid all the way out to 90 meters.
15. Remember you are marking the belly of the target bale, to being with. You will THEN mark the alley lines of the pairs of archery lanes.

To give archers more space (~ 3 ft each), set the targets TWO per 6 meters across. Each pair is in an alley that is 6 meters wide. Divide by two, then by three, and each archer therefore gets 3.3 feet of space. TO shoot a 3-archer single line, that’s 10 feet. So each pair of targets takes about 20 feet.

So first, go to the neutral alley with “0” on the outside border spine, and insure that the alley is close to the target mark PLUS 3’4”. Repeat on the other side of the field, at both 20 meters and at 90 meters. If something is not right you must identify what, and fix it first.

The neutral alley will happen before the 19th target setting. Once one side has been marked for all distances, FLIP the cord, and start measuring from the outside other spine to the middle.

Mark each target center with a cross of spray paint where each intersection has a 1’ line painted. The target shall sit directly over this cross. Once you know where on the ground the intersection is, pull the string out of the way to avoid spraying the mark with paint.

Figure out the target assignments the day before course layout so that you have a good guess on where each bale needs to go. Try to allow an extra lane for each distance in marks, in case there is a changeup.

Use a genesis bow and a dozen arrows, and shoot a test clout round to determine the appropriate distance for a clout target. Mark this place with paint for the NASP afternoon fun shoot.

FOR CLOUT: Measure out and set up clout pin marks at 110, 125, 165, and 185 meters. Do not put them in a direct line. Put in curve from left to right, men shoot on the right end.

If barriers are needed on the sides or back, string yellow tape 10m from the sideline at the shooting line, angling to 20 meters away from the sideline at 90 meters. Another tape can be strung at 110 meters parallel to the 80 meter line.

**Night Before:**print out a target assignment based on the distances. Try to keep compounds on the same targets. Try to use single-line shooting. If more than 3 archers per bale, go with a two-line shooting.

Print out a target assignment and double-check the numbers.

**Friday Practice: If you are going to have one.**

Everything should be put in place, and confirmed.  
Put at least two targets at every distance to be competed against, out on the field for practice.

This is your opportunity to de-bug problems with the lights, timers, and anything else. Be flexible and positive at all times and do not hesitate to assign and delegate.

**Morning Setup**

Print out a target assignment again if things have changed. List by both last name, and again by target number. You will need copies for a message board (use a spare target/stand is handy) and place it away from the checkin table/inspection area –avoid clots of non-moving people near these areas. Also need copies for the judges conducting inspection, and you will want a copy so you can conduct the last minute juggling of target assignments that is inevitable.

If you are shooting two lines, assign archers to A,B,C, and D. If three archers per target, allow them to decide A,B, & C so that lefties and right handers can share scopes better. (be flexible wherever you can!)

Set targets, verify them by distance, and then stake them. Insure one judge (at least) verifies the field dimensions, and be prepared to assign at least one helper if not two, to handle a tape measure the judge will use to confirm distances. Verify Target flags and numbers line up. Wind socks posted. All staked.

Have a clearly marked table for check-in, with at least two people manning the table. If payments are being accepted you will need to be able to make change. Provide checkin staff with an alpha listing of archers that includes all pertinent information so they can check them off and verify age group, bow type, gender.

After they are checked in, if scorecards are not already printed with archer names, give them blanks to fill in prior to beginning of shooting. 2 Scorecards per archer on target can alternatively/also be placed on clipboard, and laid on ground at target peg in front of shooting line. It is best to have already printed archer information, division,bow,etc. on the scorecards, but that complicates spreading them properly on the field on the correct target. BEST PRACTICE: Print them up with all info but NOT target number, have them at the checkin table, and have the staff WRITE the target number ON the scorecards before handing them over to the archer during checkin. Leave TWO clipboards at each target peg for archers to use in double-scoring.

Equipment Inspection: Announce requirement for all to be inspected. Have an alphabetical list of all archers on a clipboard so the inspector can check off each archer when inspected.

Conduct a pre-tourney speech, and include some pertinent points. Keep it short and turn it over to the Judge.

Points to make:

Have everyone get their scorecards and fill in the blanks.

Light controls shooting, but whistles are the law. If any reason is seen for stopping shooting archer is to contact judge. Bounce outs, hanging arrows, all archers on bale are to stop.   
Equipment failure explanation  
Practice until Xam. Then break for y minutes, then scoring will start.  
Make sure you can see a light stand, know where it is.

SCORING: one archer calls arrows. Two archers score. Verify the order of the scoresheets. If there is 4th, must watch and verify. Addition is done separately and then confirmed. Arrow scores may be changed, but archers all initial only if the change is an arrow call. Do not be afraid to make a call on a line. It’s either in or it’s out.  
Carry the score of one round to the next as a running total. Use a pen or pencil, to be CLEAR.   
Line cutters – explain that it is called on the shaft position, not the hole. Robin Hoods count same as the first arrow.

After all 36 arrows are shot, remind people to move targets to next shorter distance. Volunteers (parents!) to remove spikes for the targets and to re-stake them after judges verify alignment. Remind archers to complete all of the math for the first round and carry the score to the next distance (round 2).

State the time for the break, announce a 3 minutes-to-scoring, ask people to verify their target mates are all present.

**Announce that used 122cm targets will be available for sale after the shoot for $????**

**Remind to hydrate throughout the day.**

**Lunch Break**

Insure everyone has clear instructions on when to resume shooting. There is no warmup prior to the second distance.

Verify someone will be on the field throughout the break, if no one, then you stay.

Warn archers 5 minutes prior to shooting and make sure each target’s mates are able to ID each other (make sure they are all there)  
Remind all to change their sights if different distances.

**After 2nd Round**

**Announce to make sure everyone removes all gear for the day when they are leaving. Also announce when they need to be on the field ready to shoot Sunday, and ask for early bird volunteers to set the field up so shooting can be “on time”**

Retire to hotel and recover and rehydrate.

**SUNDAY MORNING**

**Be prepared to set the targets, know what distances each target needs to be set at, for the target assignments.**

**Remind 2 minute, 3 arrow ends if the shorter distances of a 4-distance FITA Round.**