A man with a beard and a cap is shown in profile, looking upwards and to the left. The image is overlaid with a semi-transparent red and orange geometric pattern of triangles and lines. The overall color palette is warm, dominated by reds and oranges.

A THOUGHTFUL PURSUIT OF STRENGTH

JUGGERNAUT TRAINING

CHAD WESLEY SMITH

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ABOUT THE AUTHOR

Chad Wesley Smith is the owner/founder of Juggernaut Training Systems and one of the most accomplished strength athletes of recent years.

With a background in track and field, Smith took his 2 collegiate national championships and continued his success in powerlifting and strongman.

In powerlifting, Smith owns current PRs of 435kg/959# squat with wraps, 380kg/848# squat in sleeves, 257.5kg/567# bench press and 367.5kg/810# deadlift, as well as Top 10 totals all-time with wraps and without at 1050kg/2314# and 1010kg/2226# respectively. Smith also earned his professional status in Strongman by a landslide victory at the 2012 North American Strongman Championships. As a coach, Smith has helped over 50 athletes earn Division 1 athletic scholarships and worked with athletes in NFL, UFC, MLB and Olympics, as well as having numerous world-class powerlifters.

PURSUING STRENGTH WITH THOUGHTFULNESS, PASSION & DILIGENCE

You can create the most scientifically sound, specific and well thought out training plan of all-time but without the necessary effort put into executing it, success will continue to elude you.

The idea of training smarter, not harder is a lie, because training smart and training hard aren't mutually exclusive and even the smartest designed training is going to be incredibly hard.

The principle of Overload is what governs the idea of good, hard training. Overload means that training must have sufficient volume to build size and sufficient intensity to build strength and near the limits of your abilities to train technique and the skill of the 1rm. Also, to properly Overload, training must become more difficult over time. Not necessarily that each session is harder than the previous one, or even each week harder than the previous, but over the course of weeks, months and years you must continually elevate volume and intensities.

THE PRINCIPLE OF OVERLOAD IS WHAT GOVERNS THE IDEA OF GOOD, HARD TRAINING.

Performing the optimal amount of overload in your training can also be referred to as training at Maximum Recoverable Volume. Maximum Recoverable Volume is the maximum of training that an athlete can perform, recover from and benefit from.

ASSESSING MRV

How do you know what your MRV is? That is the magic question that doesn't have an easy answer. I wish that I had an equation or algorithm for you to use to determine yours but I'm not exactly sure what an algorithm actually is, so instead of just give you some practical advice. The best way to determine your unique MRV is to keep increasing your volume until your performance decreases, meaning you can't do a weight for a given number of reps you can normally perform. You can also evaluate MRV by being mindful of whether or not, the bar is feeling disproportionately heavy, your desire to train is low, you're having difficulty sleeping and/or appetite is decreased-if the answer to all of the above is no, then you can probably handle more volume, but let performance be the first indicator.

There are 3 main qualities that will greatly impact the success of most

strength athletes, size, strength and technical prowess. Different overloads are necessary to achieve each of these goals.

For improved size/hypertrophy, you must present the athlete with an overload of volume. The more volume that can be handled over 60% intensity, the more hypertrophy the athlete will achieve. Training that is too light will not create the necessary hormonal responses for hypertrophy and will likely be more beneficial towards strength endurance. Since volume is critical factor towards hypertrophy and more significant than intensity, we need to create an overload of volume over time; this can be achieved by:

- Doing more volume at the same intensity (Week 1-315x3x10, Week 2-315x4x10, Week 3-315x5x10)
- Doing higher intensity at an already high volume (Week 1-315x4x10, Week 2-325x4x10, Week 3-335x4x10)
- Slowing Increasing Intensity and Volume Together (Week 1-315x3x10, Week 2-320x4x10, Week 3-324x5x10)

Seven to twelve reps per set is optimal for hypertrophy gains. Athletes who are most fast twitch dominant are better suited toward the lower end of that range, while slower twitch athletes are better suited at the higher end. Less experienced athletes will also benefit from reps in the lower ranges because they're more likely to allow technique to degrade throughout a longer set.

The differences in benefit between these three approaches is negligible, so just pick one and work your ass off at it.



While hypertrophy gains are primarily driven by increased volume, improvements in strength are more dependent on increasing intensity. Volume doesn't need to be as high in strength training, as it will be heavier and thus relatively more fatiguing at similar volumes. Intensity needs to fall in the 70-85% (and up to 90% for females and less experienced males) intensity range and you'll be best served by sets of 3-6 reps.

Training for peaking is designed to accustom the body to producing maximal force and hone technique. Peaking training is best done at over 85% of the 1rm for sets of 1-3 reps. We will cover optimal peaking strategies during the later portion of the book.

There are a few ways that the Principle of Overload is commonly misapplied that you'll want to avoid to maximize the effectiveness of your program:

Insufficient Intensity and/or Volume: Basically you aren't training hard enough. You are too far below your MRV to maximize hypertrophy and/or training too light to build general strength.

Improper Assistance Work: The role of assistance work is simple, to build the competitive movements through increased size and strength of specific musculature. To do this most effectively, you must choose exercises that create sufficient homeostatic disruption and in descending order that means you'll be performing 1-Barbell Movements, 2-Dumbbell Movements, 3-Cable Movements, 4-Machine Movements. So if you want big, strong hamstrings, choose RDLs over Hamstring Curls. The only situation where you'd abandon this hierarchy is when the athlete is already very near their MRV and choosing a Barbell movement would cause them to exceed it, but they still need some work on a specific muscle group; in that situation then a choice like Machine Chest Presses over Widegrip Bench Presses, could be justified.

The role of assistance work is simple, to build the competitive movements through increased size and strength of specific musculature.

Improper assistance work selection could also mean avoiding exercises that don't allow for sufficient overload. Unstable training via bosu balls or unstable bars (hanging KBs from bands or using a 'Tsunami Bar') should be avoided because while people will lead you to believe that you are recruiting more muscle fibers doing this, you are only recruiting slow twitch fibers because of the inability to produce sufficient force in this unstable environment, not the fast twitch fibers that you want to grow and train.

Poor Tracking of Training: If you don't know what your previous best effort is, then how can you know if you're overloading beyond it? This is most commonly a problem in people using conjugate methods with too large of an exercise pool. It is very difficult to know if you're getting stronger on a specific exercise and how that exercise is relating to your improvement as a powerlifter, if you're only doing that given exercise once every several months. Know what your best rep maxes are on the competitive movement, PRs with different levels of equipment (wrapless, beltless) and best results in specific variations are, so that you can ensure you are making progress. Don't just guess at lifts correlation to your competitive performance.

Training To Failure Too Often: Violating this component of overload is a great way to get a lot of likes on Instagram and a terrible way to be a great powerlifter (you know someone who actually lifts well in meets). I don't want to come across like I'm discouraging pushing yourself and training your ass off, but leaving 1-2 reps in the tank will ensure that you are making lifts, maintaining near optimal technique and not presenting unnecessary stress to your nervous and muscular systems. Training to true failure on compound barbell lifts is very taxing and you must understand

that training doesn't happen in a vacuum and that your training on Monday will affect your training on Tuesday and that if Monday was an all out set of deadlifts to failure, then your bench training on Tuesday may suffer.

Another important aspect of overload to address, is the use of mechanical overloading techniques. By this I mean strategies that allow you to use supramaximal weights in training. This is a powerful training stimulus and can certainly be advantageous to your strength and confidence but must also be used strategically since it is very stressful.

Common mechanical overloading techniques include, Reverse Bands, Slingshots, Shortened ROM lifts and Heavy Holds. All of these can be effective strategies to help a lifter accommodate to maximal loads and build confidence under heavy weights.

When choosing to use Mechanical Overloading techniques, I would encourage you to at most use them every 3-6 weeks for the Lower Body (Squat and Deadlift) and every 2-4 weeks for the Upper Body (Bench Press) and to cap your overload at 10% over your current max. A 10% overload should be sufficient to stimulate the adaptations you need, while not being so significant that they cause subsequent training sessions to suffer from the fatigue created by the overload. In my opinion, overloading beyond 10% doesn't offer benefits that outweigh the extra nervous system and joint stress.

When presenting the body with overload, you then must make sure you are properly managing fatigue and accounting for various SRA lengths.

Properly managing fatigue is what will allow us to make hard training sustainable in the long term.

There are 3 levels of fatigue which the athlete can experience, 1-Normal Training at or Below MRV, 2-Overreaching (Functional and Non-Functional) and 3-Overtraining. Training at or below MRV has already been discussed at length, so now lets look into an important concept, functional overreaching. Functional overreaching is an intentional pushing over your training past your MRV and then an intentional pulling back to reap the benefits of harder training.

Functional overreaching is an excellent concept to apply immediately prior to a planned deload, in fact, if you aren't functionally overreaching, you probably shouldn't have planned deloads-though if you are overreaching unintentionally, you will need an unplanned deload to avoid overtraining. Functional overreaching works because when you train more, you gain more, and fatigue is not harmful unless it lingers for too long. In fact, temporary hardship followed by later gains is termed Supercompensation, and some research shows that it doesn't just happen in the recovery between two training sessions, but can also occur over the course of several weeks, if a couple of those weeks are just beyond MRV and the next one or two are way below it.

Overtraining is a term that gets used and debated a lot but is not particularly well understood. Most people use overtrained when they actually mean overreached, as overtraining is a much more severe case of cumulative fatigue. Most strength athletes do not need to concern themselves with overtraining as when you are only needing to manage



weight training it is simple to avoid becoming overtrained unless you are exceptionally enthusiastic...or dumb.

Correct application of fatigue management will mean that you are strategically including light sessions and deloads into your training. These sessions and weeks though must be earned by first properly applying overload. Going into a deload week, you should feel run down like you are in need of a reduced workload and by the end of that week you should feel like you are chomping at the bit once again for hard training. I encourage athletes to reserve passive recovery means like ice baths and contrast showers which artificially reduce inflammation for deload weeks. Inflammation is an important adaption signal of the body and using them during normal overload training has been shown to actually dampen the training effect. During deload weeks though when the goal is restoration,

feel free to use them as liberally as you'd like to ensure that you are decaying fatigue as much as possible and feel prepared to begin your next block of overload training.

One of the most frustrating misapplications of fatigue management that I witness is lifters training with too high of volume close to a competition. It is not a badge of honor to be doing what effectively equates to general strength (if not hypertrophy) work, rather than peaking work when you are 2-3 weeks out from a meet. There is a time for high volume and high reps but that time is not in the few weeks before competition, so save the multiple sets of 8 or the working up to a 6rm for their appropriate time.

STIMULUS RECOVERY ADAPTATION (SRA)

The mindset you bring to training can have a huge impact on your long term success. If you are a competitive athlete, what is the purpose of training? To improve your competition result.

Training is not for showing off, it is not necessarily for PRs, and it isn't where your best performances should be happening. Training is the time to build your general and specific qualities that you will then test and express in competition. So with that in mind, the measure of a great training plan shouldn't be how many PRs you produce within the training process, but rather how well it helps you perform on the competition platform (or mat or field or court).

For me, the process of building my lifts in training and successfully testing them on the platform is based on four primary factors: 1) training in a

relatively fatigued state; 2) using exercise variations and accessory work correctly; 3) making lifts and building confidence; 4) approaching training with a calm and focused attitude.

BUILDING NOT TESTING

I am not concerned with setting all-time PRs in the course of training; I'm concerned with my training setting me up for all-time PRs in competition. Achieving this means that I'm performing relatively high workloads during the course of a week, workloads that will induce fatigue and, with proper recovery, will improve my fitness. It is this fitness-fatigue relationship that is critical to manage to maximize meet day performance. These levels of fitness and fatigue will vary throughout the course of the training cycle, but the important thing to understand is that you aren't always going to feel good for training. You aren't always going to be ready to set lifetime PRs, and having those feelings doesn't mean that you're overtraining - it just means you're working hard, which is what has to happen for improved performance.

**I AM NOT CONCERNED WITH
SETTING ALL-TIME PRS IN THE
COURSE OF TRAINING.**

USING EXERCISE VARIATIONS AND ACCESSORY WORK CORRECTLY

When you're selecting and performing exercise variations and accessory work, you need to constantly keep the question "How is this helping build my competitive lifts?" in your mind. If you can't come up with a good answer to that question, you need to re-examine why you're doing that exercise or why you're doing it in that manner.

Exercise variations and accessory work's role is to build the competitive lift. That means you need to strategically select them to build your specific weak points, and you need to perform the exercises in a manner to strengthen those areas without detracting from your energy to train for/recover from your primary work. Strategically selecting the exercises will mean that you have a good understanding of where you're missing a lift, why you're missing it, and which exercises can best be used to address that area (but that's a topic for another article).

The manner in which you perform these lifts is critical, because striving for PRs in things beside the competitive lift can actually be a negative for a more qualified lifter. Within the context of a meet training cycle (8-12 weeks leading up to a meet), you need to prioritize your work more and more toward the competitive lifts and make sure you're using your other work to build them up. Doing this means that you'll use exercise variations for primarily submaximal work in sets of 2-8 reps to build the specific musculature needed to improve your technique in the competitive lifts; that accessory work will be done for sets of 6-15 to further build hypertrophy there. I would encourage you to always leave 1-2 reps in

the tank on exercise variations and accessory work, but the occasional burnout set on small exercises is fine.

... keep the question, “How is this helping build my competitive lifts?” in your mind.

MAKING LIFTS & BUILDING CONFIDENCE

Missing lifts doesn't build strength; making them does. If you go an entire training cycle and make every single lift, what are you thinking when you get under the bar? That you're going to make it, because that is all you know how to do.

It is imperative that you are smartly choosing your training weights so that you're making lifts, building strength, and - equally important - building confidence. True maximal lifts, 100%, 10 RPE are the most stressful lifts to your body and nervous system; they are also the most likely to cause technical breakdown and chance of injury. Once you are experienced enough to know what it truly feels like to push to 100% or 10RPE and succeed, it isn't something that you'll need to include very frequently in your training. Conversely, if you are less experienced and haven't felt this as much, you need to learn how to do it. This still won't be an every-session thing or an every-week kind of thing, but you'll need to do it every few weeks until you feel more comfortable with that strain.

Creating multiple ways to PR is a great way to build confidence as a lifter. You can PR by weight on the bar, number of reps, or quality of work being

done. I'm sure you have weight and rep PRs, but understanding that doing the same weight and reps for more powerful, technically sound reps is also a way to indicate progress.

I am an advocate of taking 10 pounds off the bar and racking a weight 1 rep early to help save the lifter's body and build confidence. If your PR is 380x3 in the squat, what is the difference in stimulus between doing 390x3 and 400x3? Probably pretty negligible, but the stress difference between doing 390x3 at a 9 RPE and 400x3 at a 10 RPE could be pretty significant as it relates to your recovery and performance in subsequent training sessions.

Training sessions do not exist within a vacuum, so your squats on Monday will have an impact on your bench training the next day and your deadlift training the day after (or however you organize your training). Having an understanding of this means that maybe going for absolute maximal effort and PRs every session isn't in your best interest, because for every high you have in your training (high arousal, high stress, high intensity), there is likely to be a low that follows it. So while having high stress training is important, you have to consider all your training within the context of a bigger plan. Racking the bar 1 rep early on a max-reps set or taking 10 pounds off the bar can allow you to still have great, quality training while slightly reducing the stress and impact one session has on the next.

Doing this also helps me build confidence. When I can walk away from a set telling myself I had 10 more pounds or 2 more reps, it is a great feeling. For example, I squatted what was at the time a huge beltless PR of 705x3. I know that day I was capable of doing that weight for at least 4,

probably 5 reps; but had I gone for a 4th rep, I could have found that I was only capable of 3 reps or that 4 was the absolute most I could have done. Walking away from that session telling myself that I'm good for 705x5 is a much more powerful, positive, confidence-boosting idea than knowing that 705x3 was the best I had, in the chance that I missed the 4th rep.

APPROACHING TRAINING WITH A CALM & FOCUSED ATTITUDE

Calm yourself down in training, and focus on the task at hand (not on putting on a show so people on YouTube think you're really hardcore and badass). For me, part of this means avoiding listening to "pump-up" music while I train or using stimulants during training. Often I lift in silence, usually just to whatever is on in the gym (I train on my own in the corner of a CrossFit gym), sometimes to music that I normally listen to (not tough guy music, sorry), and occasionally something to help me get fired up. People will often comment: "Man, if you had a better song on, you would have lifted 20 more pounds." No. The answer is no.

Music doesn't lift any weights, and if you're reliant on that, it will eventually not be there and you'll fail. As far as the stimulants (caffeine, pre-workouts) go, I used to adhere to this much more strictly; in fact, I'd never even had a cup of coffee before November 2013. I do drink coffee, and sometimes before a big session will add an extra espresso shot or two, but this is VERY RARE. However, I make sure to cut coffee for a few weeks before competition to re-sensitize myself to the effects of caffeine. Then on meet day, I will take in 1,000mg+ of caffeine. Doing this will heighten my senses even more at my meet and help improve meet-day performance more than someone who is reliant upon stimulants for every session.

CALM YOURSELF DOWN IN TRAINING, AND FOCUS ON THE TASK AT HAND.

Take a step back and critically think about what you're doing in training and why you're doing it. The best powerlifter, weightlifter, strongman, etc., is not the person with the coolest training videos and most likes; it is the person who performs the best in competition. Taking these four steps will help ensure you are building your lifts rather than constantly testing them without seeing results.

Maximizing your results extends beyond training, you must foster a strong competitive mindset to be able to realize your hard work when it matters most, on the platform.

All the great training in the world can be squandered on competition day if you don't have the mental fortitude to execute on the competition platform.

MAX EFFORT & TECHNICAL BREAKDOWN

Why do people always say things like, “Of course his technique broke down, it’s a max lift” or “nobody’s technique looks perfect on a 1rm”?

“Good” technique is good not because it looks nice, but because it is the technique that produces the best result. Keeping that in mind, a max lift with a technical breakdown is not truly a maximal lift; if more efficient (aka, better) technique was used, you would have lifted more. Now of course, these technical breakdowns will occur, but don’t excuse them as just what happens when you do a 1rm. Rather, understand that whatever broke down is a weakness that needs to be addressed through strategically selected exercise variations and assistance work.

Practicing in the ranges where these technical breakdowns occur will not correct them; rather, it will just further ingrain them. To correct them, you need to find the weights that break down your technique (and I’m talking about a true breakdown, not your knee caving in 1/8 of an inch), and then do volumes of work at 65-85% of that weight with your perfect technique. (I say “your perfect” because we are built differently, and there isn’t a universal best technique. If there was, we would all do it.) Build up the strength to express your perfect technique on heavier and heavier weights. Then compliment that training with the accessory work that is right for you.

The best technique is the best because it allows you to most efficiently express your strength. Don’t become complacent in allowing technical flaws to limit your potential.



One of the things I pride myself on is being able to exceed my training results in competition. While a big part of this is properly designed training and an effective peaking strategy, the other part is my mental approach to competition.

Here are three simple, but powerful ideas to help you maximize your competition results.

TRUST YOUR PREPARATION

Worry and doubt will enter your mind much more quickly if you do not feel confident and content in the way you prepared yourself for the meet. Success on the platform will start many weeks before the competition, so take care to create a well-thought out plan; once that plan is created, trust it and execute it with ferocity.

One place where people, even those who work hard within the context

of a great plan, tend to falter is in the final week before competition. People tend to panic, thinking that they haven't done enough or they need something special or extra for success. This leads them to introducing new and unknown stimuli on the body via a special exercise, food, or supplement; the days before a meet are the last time you want to do this. Believe in your program, trust your effort, and know that the meet is the time for your hard work to come to fruition.

CONTROL WHAT YOU CAN CONTROL & DON'T WORRY ABOUT WHAT YOU CAN'T

The only things about training and competition that you truly have control over are how good of a plan you create and how diligently you execute that plan. You don't get to pick what song is on, you may not like the bar they're using at the meet, the sun may be in your eyes, or your competitor may have done X, Y, or Z during his training. But your results are your results.

Things like equipment in competition and environment (music, weather, etc.) are largely out of your control, so you can do some things in training to help you avoid being negatively affected by them come meet day.

From an equipment standpoint, take yourself out of your comfort zone on occasion by using a whippy squat bar or a stiff deadlift bar, walk it out if you use a mono, make things less than ideal for yourself so that when you arrive at competition, nothing can phase you. From an environmental standpoint, don't let yourself get attached to always using the same rack, or facing the same way, or listening to your music; manipulate

these variables in training so that when you get in competition, you are unshakeable.

Also, remember that many factors like equipment and weather are affecting all the competitors, so when you think a bar is whippy or slick or it's hot out, save your complaints, because everyone is probably feeling that way. Only the weak-minded will acknowledge it.

THE WEIGHTS WEIGH THE SAME AT MEETS AS THEY DO IN TRAINING

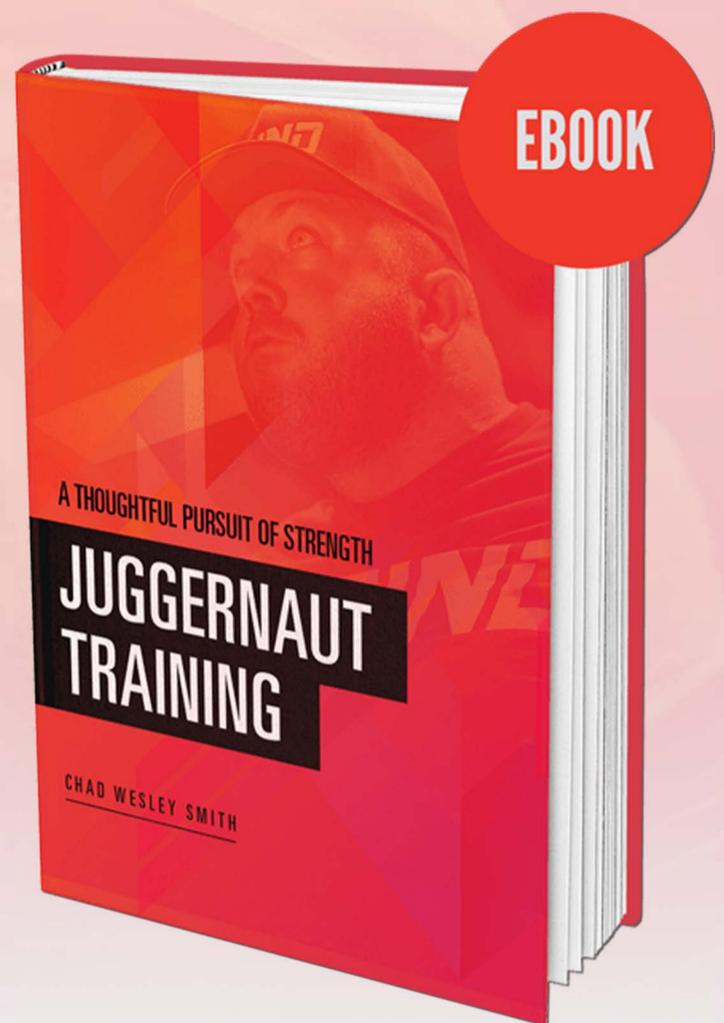
So many people are intimidated by competition, but for sports like powerlifting and weightlifting, the elements of the lifts are unchanged from training to meets - there are just judges and spectators watching. The weights in competition don't weigh more than the weights in training, and they don't require any extra effort to lift.

Competing should be fun and bring some anxiousness with it, but that anxiousness is only going to help adrenaline flow and enhance your performance if you think about competition correctly. If you let it enter your mind that it is in a way more challenging than training or requires you to do something above and beyond what you've prepared for, that anxiousness will likely turn to nervousness and have a negative effect on your performance.

Meets are the fun culmination of many weeks of training; set the expectation of yourself that you will have your best performance when it matters, on the platform.

A THOUGHTFUL PURSUIT OF STRENGTH JUGGERNAUT TRAINING

BY CHAD WESLEY SMITH



Five years after releasing the original Juggernaut Method and three years after The Juggernaut Method 2.0, Chad Wesley Smith has brought you his best work yet, Juggernaut Training: A Thoughtful Pursuit of Strength.

Juggernaut Training focuses on teaching you how to practically apply scientific programming principles to your and your athletes training. Also, improve your mindset towards training and competition, as well as learning how to create sustainable and long term training plans to develop the best athletes and lifters possible. This book is a reflection of Chad's training, competing, coaching and learning over the last 5 years.

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The programming ideas included in Juggernaut Training have produced the following results:

- Chad Wesley Smith 970 pound squat in wraps and 2325 pound total, 9th highest of all-time.
- Marisa Inda 854 pound total in sleeves at 112 pound bodyweight. USAPL Record Bench, Deadlift and Total. 52kg Class USAPL National Champion
- Mark Bell 578 pound bench press. A 22# PR in 4 months of training after a 20 year long competitive career.
- Jake Johns 2198 pound Total in Sleeves including a 589 pound Bench Press.
- Kevin Torres 1662 pound Total in Wraps at 165 pound bodyweight.
- Tee Popoola 2053 pound Total in Sleeves at 242 pound bodyweight, including a 535 pound bench press.

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