

Planning Theory

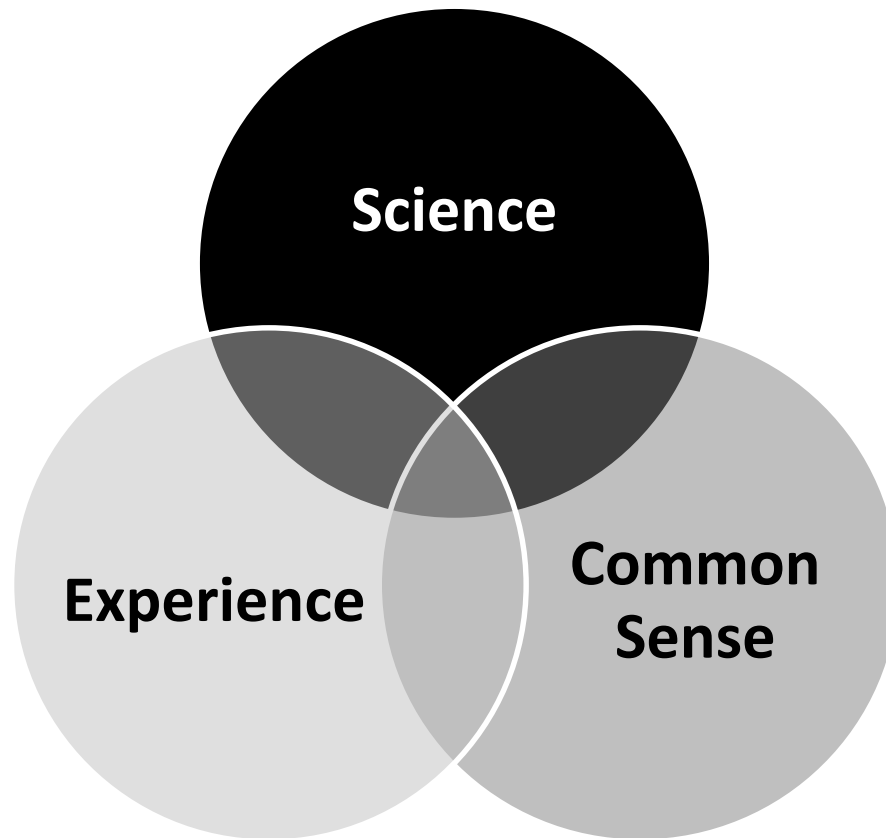
Vésteinn Hafsteinsson

European Athletics Coaching Summit Series

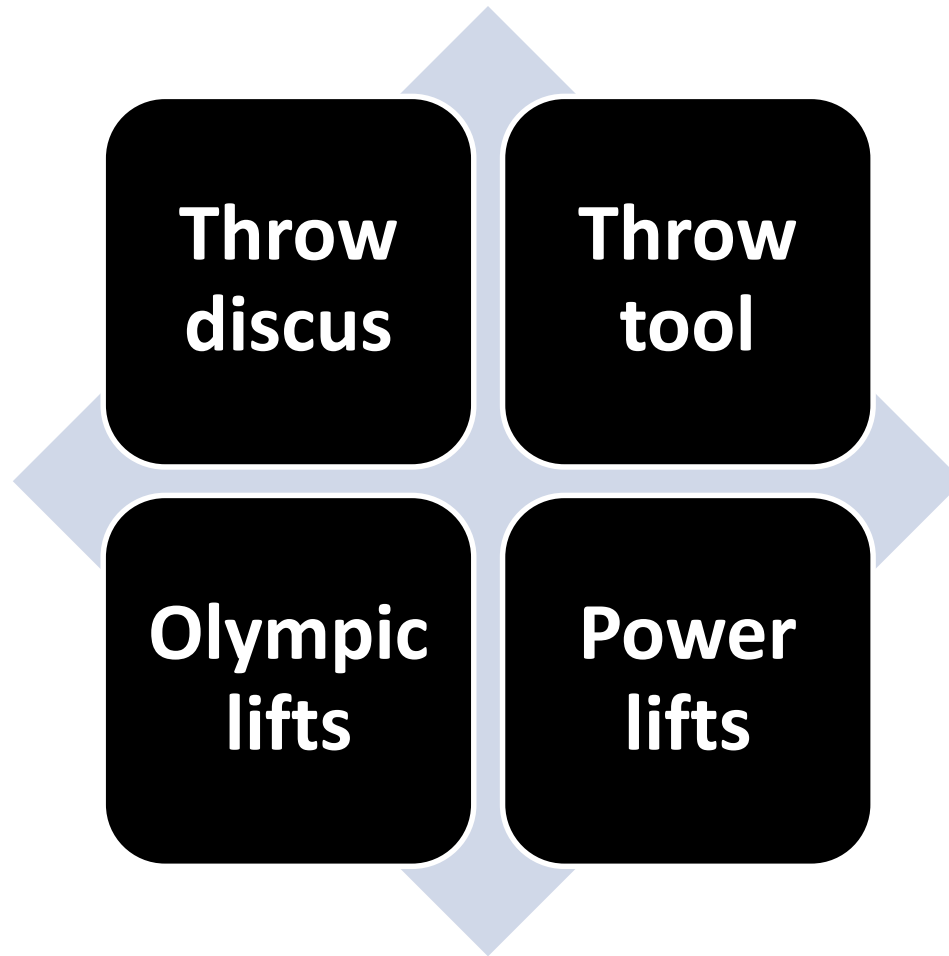
16-18 November

Växjö, SWEDEN

Philosophy



IT IS ALL ABOUT THIS



TRAINING PRINCIPLES

a. Individualization

b. Specificity

c. Load/adaptation

1. Training volume/intensity

2. Training time

3. Frequency of training

4. Rest

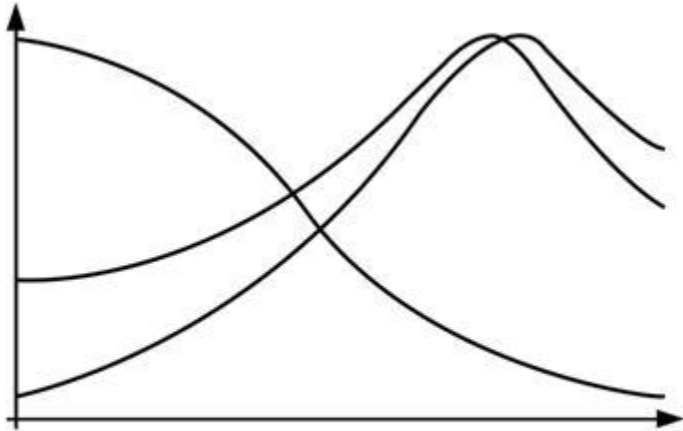
5. Compensation/over/super

d. Variation

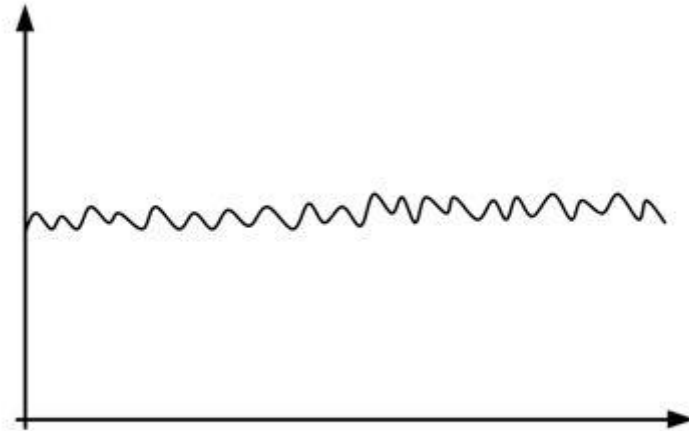
e. Progression

f. Control

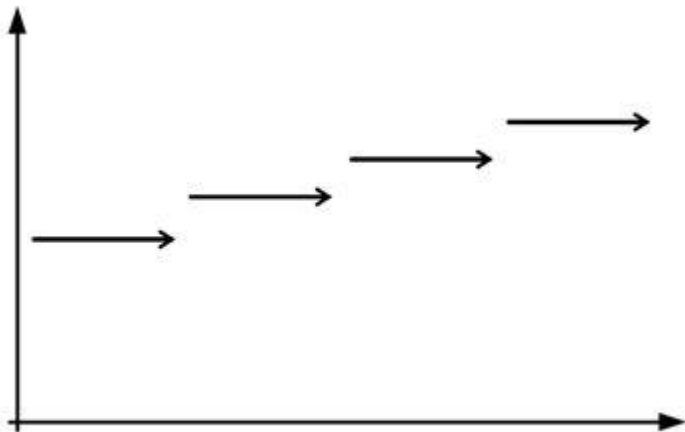
PERIODIZATION MODELS



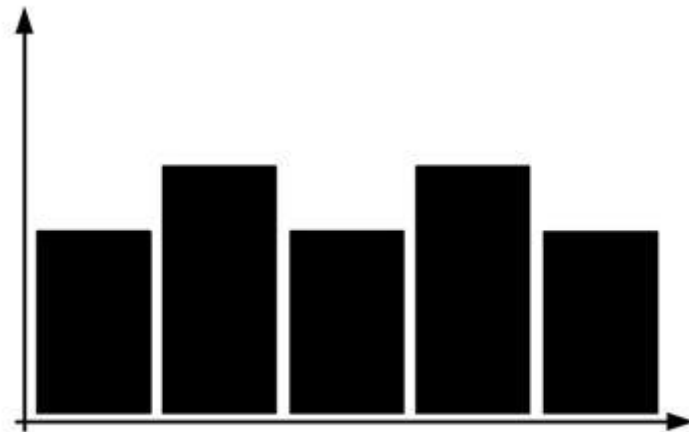
MATVEYEV



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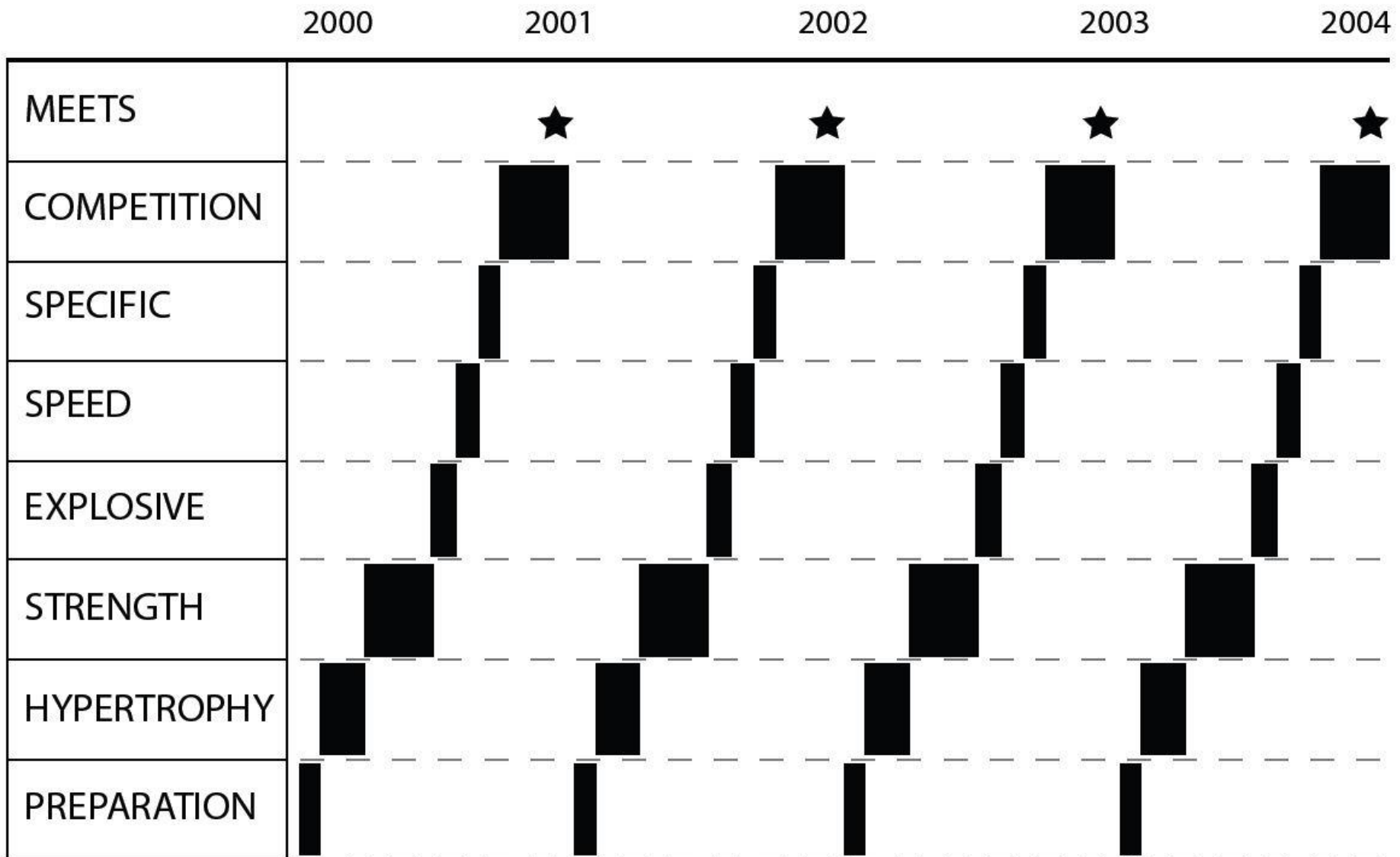


BONDARCHUK



VERSHOSHANSKY

4 YEAR PLAN



YEAR PLAN

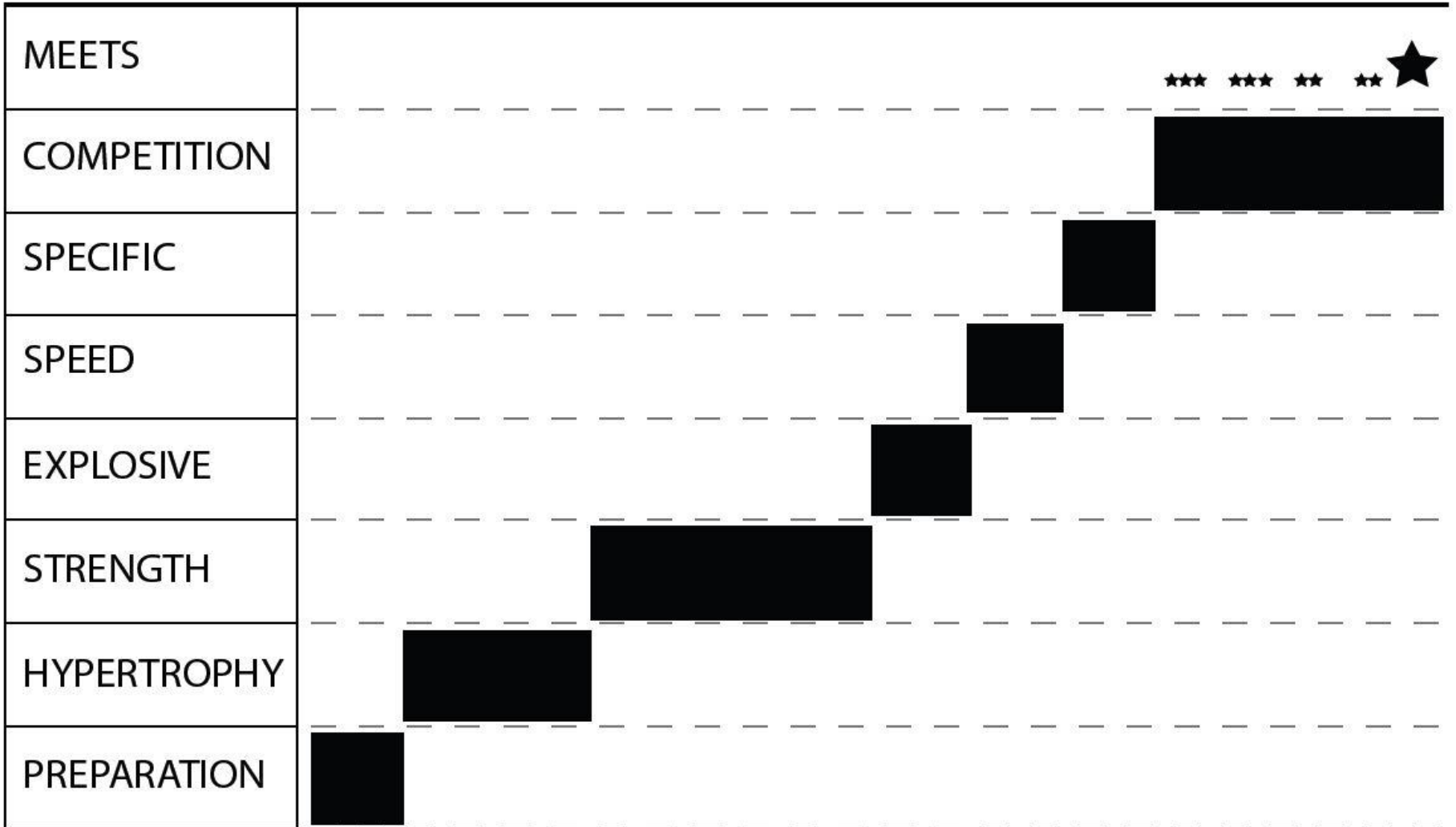
		Period / Cycle Type	Time			
MACROCYCLE CONTENT	Macro 2	Mezo 1	1	PREPARATION	28 Days	4 Weeks
			2	HYPERTROPHY	56 Days	8 Weeks
		Mezo 2	3	STRENGTH	84 Days	12 Weeks
			4	POWER	28 Days	4 Weeks
	Macro 1	Mezo 3	5	SPEED	28 Days	4 Weeks
			6	SPECIFIC	28 Days	4 Weeks
		Mezo 4	7	COMPETITION	84 Days	12 Weeks

Organization

- All organization in 4 week periods
- Volume down in each week
- Intensity up in each week
- Changes on sets, reps, exercises each week
- Lots of pyramid training
- Top performance, each day, week, month, period
- Rest organized

YEAR PLAN

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG



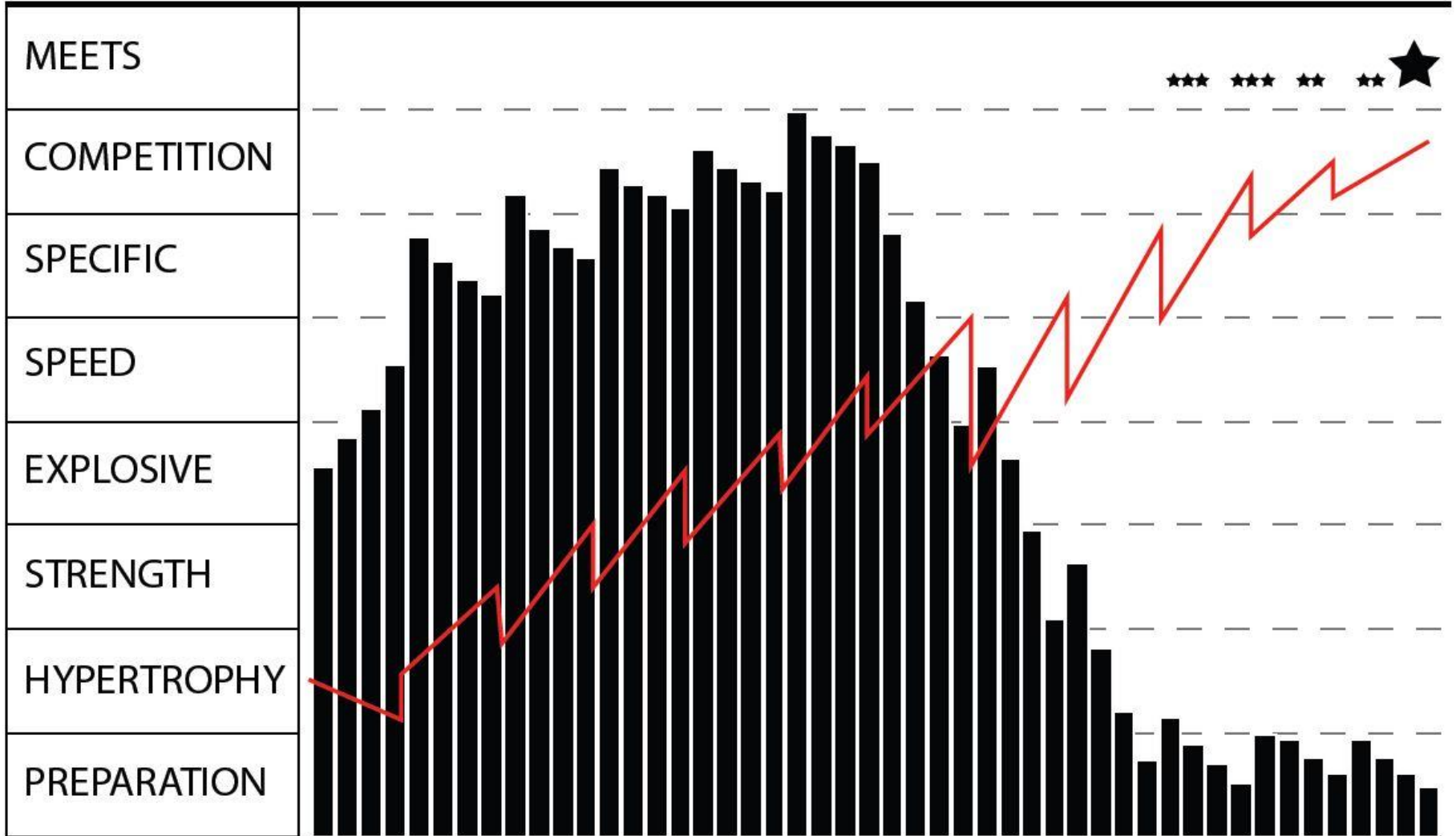
CYCLES

Usually 1 Macro cycles during the year for 4 years

1. These Macro cycles are broken down in Mezo periods of 4-12 weeks
2. The Mezo periods are then broken down to Mezo cycles of 4 weeks
3. The Mezo cycles are then broken down to 7 day week Micro cycles
4. The week cycles are broken down to 3-1 & 2-1 day Micro cycles
5. The day cycles are then broken down to daily sessions

YEAR PLAN, VOLUME and INTENSTY CURVE

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG



MEASUREABLE, (physical peaking)

Numer of days

Number of sessions

Number of hours

**Number of
throws/lifts**

TRAININGPROGRAM, MEZOCYCLES 2-3, PERIOD 2, HYPERTROPHY, TOTAL 56 DAYS, NOV-DEC 10, WEEK 1

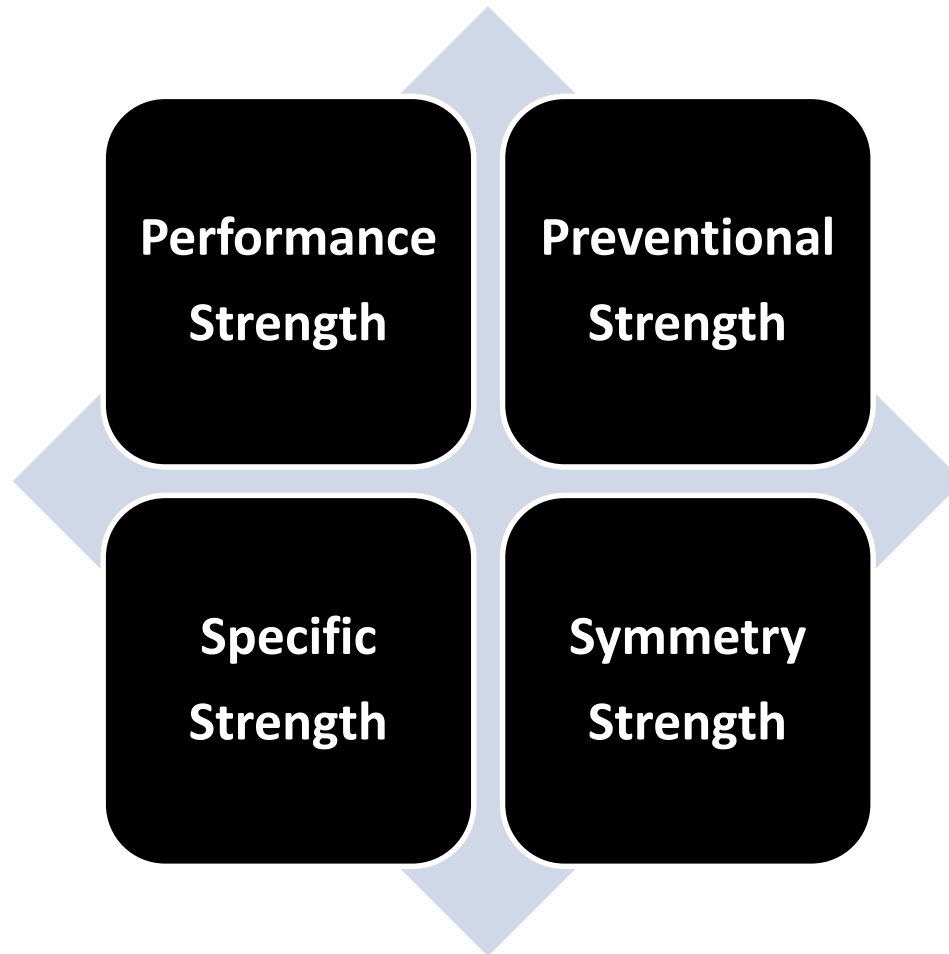
TOTAL SUM for this WEEK

- **Warmup:** Running 12-18km, 75% pulse, 6 sessions
- **Warmup:** Biking 8-12km, 75% pulse, 4 sessions
- **Running School:** 10 ex, 400-600m, 90-95%, 2 sessions
- **Hurdle Walk:** 10 ex, 100-200 hurdles, 90-95%, 2 sessions
- **Buildups:** 10 reps, 975-1200m, 80-90%, 2 sessions
- **Yellow Ball 2.8kg:** 4 ex, 80-100 throws, 90%, 2 sessions
- **Left Arm Throws 2.8kg:** 2 ex, 20 throws, 90%, 2 sessions
- **Denfi Tool 2.5kg:** 2 ex, 80-100 throws, 90%, 2 sessions
- **Total of Throws:** 180-200 throws, 90%, 4 sessions
- **Breakdown of Throws:** S NR 20, 10 left, S R, 20-30, F NR 60-70, 10 left, F R 60-80, 90%
- **Olympic Lifts:** 42 reps, 7000kg, 166.67kg average, 120-130%, 2 sessions
- **Breakdown of Olympic Lifts:** 2 ex, 20 reps 120%, 16 reps 125%, 6 reps 130%
- **Power Lifts:** 4 ex, 140 reps, 23350kg, 166.79kg average, 65-80%, 4 sessions
- **Breakdown of Power Lifts:** 20 reps 65%, 18 reps 67.5%, 32 reps 70%, 28 reps 72.5%, 24 reps 75%, 10 reps 77.5%, 8 reps 80%
- **Symmetry Lifts:** 15 ex, 900-1152 reps, light, medium, heavy, 4 sessions
- **Special Lifts:** 2 ex, 56-80 reps, 4480-7200kg, progressive, 2 sessions
- **Medicinball:** 10 ex, 200 reps, 6kg, 1200kg, 2 sessions
- **ABS, STABS Routine:** 30-40min, program 1-2, 2 sessions
- **Long Distance:** 10-12km, 75% pulse, 2 sessions
- **Flexibility:** 7 ex, 34min total time, 30sec/3sec v, 8 sessions

Total Sum Calculations

- **Total of Throws:** 180-200 throws, 90%, 4 sessions
- **Breakdown of Throws:** S NR 20, 10 left, S R, 20-30, F NR 60-70, 10 left, F R 60-80, 90%
- **Olympic Lifts:** 42 reps, 7000kg, 166.67kg average, 120-130%, 2 sessions
- **Breakdown of Olympic Lifts:** 2 ex, 20 reps 120%, 16 reps 125%, 6 reps 130%
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TYPES OF STRENGTH



EXERCISES

- **Multijoint** > Olympic Weight Lifting
 - **Double joint** > Power Lifting
 - **Single joint** > ABS-STABS, re, prehab.
 - **Single/double joint** > Auxillary ex.
 - **Multijoint** > Plyometrics
Jumps
Medicinballs
Throwing
- Performance Strength**
- Preventational Strength**
- Symmetry Strength**
- Specific Strength**

CAPACITY & WORKING LOAD

- **The sport** > Movement patterns, muscular involvement
Need of strength, power, speed etc.
Injury risks in joints or muscles
- **The athlete** > Training background and training age
Level of technical knowledge
Volume and intensity level
- **Testing** > Strength, speed, power, flexibility, endurance tests
- **Goals** > Hypertrophy
Strength
Muscular endurance
Power

TRAINING FREQUENCY, RECOVERY

- **Checking** > Athlete's training status
Other training
Event
Types of exercises
Load
- **Multijoint (lifts)** > 48-72 hours, 2-3 times a week
- **Double joint** > 48-72 hours, 2-3 times a week
- **Single joint** > 24-48 hours, 3-4 times a week

EXERCISE ORDER

- **Multijoint** > First on the daily session
Snatch, Clean, Jerk
- **Double joint** > Second on the daily session
Squats, Bench Press, Deadlift
- **Single joint** > Assistant exercises
- **Pairing** > Different muscle groups
Superset, compound set

VOLUME & INTENSITY

- **Volume** > Total number of lifts done in one exercise in one session.
- **Intensity** > Power (W),
Reps max (RM)
Percent of one rep max (% 1RM)
- **Volume & Int.** > Number of sets x number of reps
x number of load

REPITITION MAX (1RM)

- 100% ----- 1 rep
- 95-97.5% ----- 2 reps
- 92.5% ----- 3 reps
- 90% ----- 4 reps
- 87.5% ----- 5 reps
- 85% ----- 6 reps
- 82.5% ----- 7 reps
- 80% ----- 8 reps
- 77.5% ----- 9 reps
- 75% ----- 10 reps

TEMPO & REST

- I like to say that tempo should always be optimal or even maximum
- Rest time in between sets and in between exercises varies in relation to each individual
- From 30 sec-6 min is usually the rest in relation to what kind of strength training is being trained

CALCULATION SYSTEM

- During each cycle within each period there is a performance goal
- It is usually to work up to max in particular reps category
- Then 4-12 weeks ahead every lift is calculated out in advance
- The period usually starts with the 10% RULE and ends up with the MAX

TRAINING METHODS

Model	Load (%)	Intensity	Reps & Sets	Rest (min)
Max Strength	92.5-100	High/Max	1-3/2-5	2-6
Hypertrophy	70-80	Low/Medium	8-12/3-5	30 sec-1.5min
Explosive	70-90	High/Max	1-4/3-5	2-6
Speed	(30)60-80	High/Max	3-5/3-5	1-2
Endurance	30-50	Low/Medium	15-(50)/2-4	> 30 sec
Learning	Light	Easy	5-12/2-4	30 sec-1.5min

PERFORMANCE STRENGTH

Olympic Weight Lifting

Snatch Pull Snatch

- Power Snatch
- Hang Snatch
- Drop Pulls
- Podie Pulls

Clean Pull Clean

- Power Clean
- Hang Snatch
- Drop Pulls
- Podie Pulls

Push Press Jerk

- Behind Neck
- In Front
- Reaction Jerk
- Speed Jerk

TRAINING METHODS, OLYMPIC LIFTS

SETS	3-5
REPS	1-5
Tempo	Fast/Max
Intensity	60-100%
Rest	3-6min
Goals	Strength, Explosiveness, Speed
Made	All Year Except: In General Preparation and only Pulls in Hypertrophy period

PERIODIZATION-OLYMPIC LIFTS

Oct	0	0	0	0
Nov-Dec	3-5x3-5	120-130%	5x5	54345
Jan	3-5x1-4	80-100%	3-5x2-4	32111
Feb-Mar	5x3-5	77.5-90% + 120-130%	5x5	54333
April-May	3-5x1-4	80-100%	3-5x2-4	32111
Jun-Sep	3-5x1-3	60(70)-80(90)%	3x2-3	11111

TONNAGE OLYMPIC LIFTING

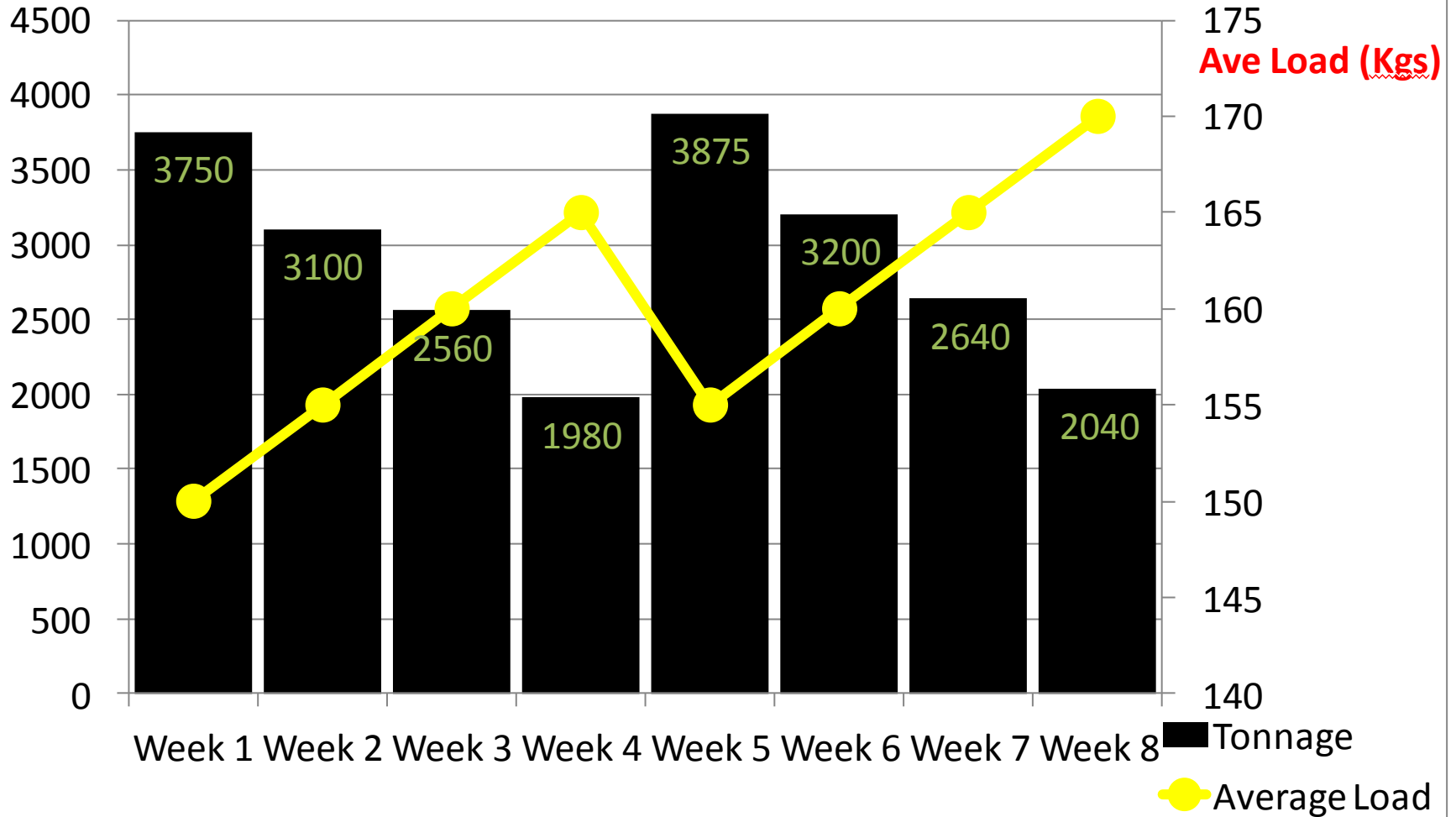
Snatch Pull

- 1 week: 5x5x150kg = 25x150kg = **3750kg**/150kg
- 2 week: 5x4x155kg = 20x155kg = **3100kg**/155kg
- 3 week: 4x4x160kg = 16x160kg = **2560kg**/160kg
- 4 week: 4x3x165kg = 12x165kg = **1980kg**/165kg

- 5 week: 5x5x155kg = 25x155kg = **3875kg**/155kg
- 6 week: 5x4x160kg = 20x160kg = **3200kg**/160kg
- 7 week: 4x4x165kg = 16x165kg = **2640kg**/165kg
- 8 week: 4x3x170kg = 12x170kg = **2040kg**/170kg

LOAD vs INTENSITY

Total Tonnage



PERFORMANCE STRENGTH

Power Lifting

Front Squats

Squat

Half Squats
One Leg Squats
Jump Squats

Incline Bench Press

Bench Press

Fly
Close Grip Bench
Dumbbells

Snatch Deadlift

Dead Lift

Suomo Deadlift
Partial Deadlift
Podie Deadlift

TRAINING METHODS, POWER LIFTS

SETS	3-5
REPS	1-10(12)
Tempo	Fast/Max
Intensity	60-100%
Rest	1-6min
Goals	Strength, Hypertrophy, Speed
Made	All Year Except: In General Preparation Period

PERIODIZATION-POWER LIFTS

Oct	0	0	0	0
Nov-Dec	5x4-10	65-90%	109876	87654
Jan	3-5x3-5	77.5-92.5%	4x2-4	54333
Feb-Mar	5x5	77.5-87.5%	5x5	5x5
April-May	3-5x1-5	77.5-100%	32133	54333
Jun-Sep	3-5x1-3	60(70)-80(90)%	3x2-3	543

TONNAGE, POWER LIFTING

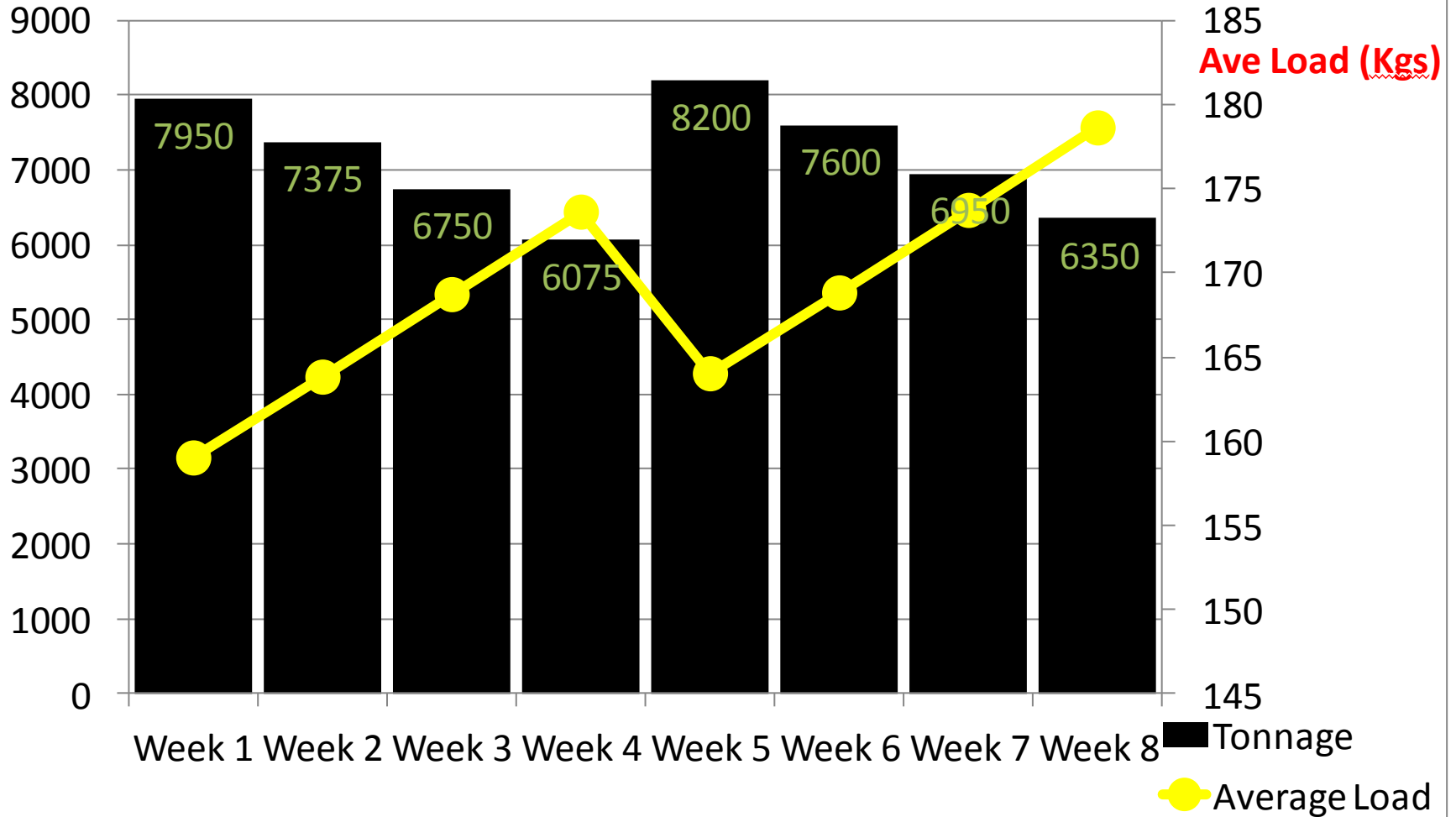
Squats

- 1 w: 12,11,10,9,8 x150-170kg = 50 reps, 7950kg/159.0kg
- 2 w: 11,10,9,8,7 x155-175kg = 45 reps, 7375kg/163.8kg
- 3 w: 10,9,8,7,6 x160-180kg = 40 reps, 6750kg/168.7kg
- 4 w: 9,8,7,6,5 x165-185kg = 35 reps, 6075kg/173.6kg

- 5 w: 12,11,10,9,8 x155-175kg = 50 reps, 8200kg/164.0kg
- 6 w: 11,10,9,8,7 x160-180kg = 45 reps, 7600kg/168.8kg
- 7 w: 10,9,8,7,6 x165-185kg = 40 reps, 6950kg/173.7kg
- 8 w: 9,8,7,6,5 x170-190kg = 35 reps, 6250kg/178.6kg

LOAD vs INTENSITY

Total Tonnage



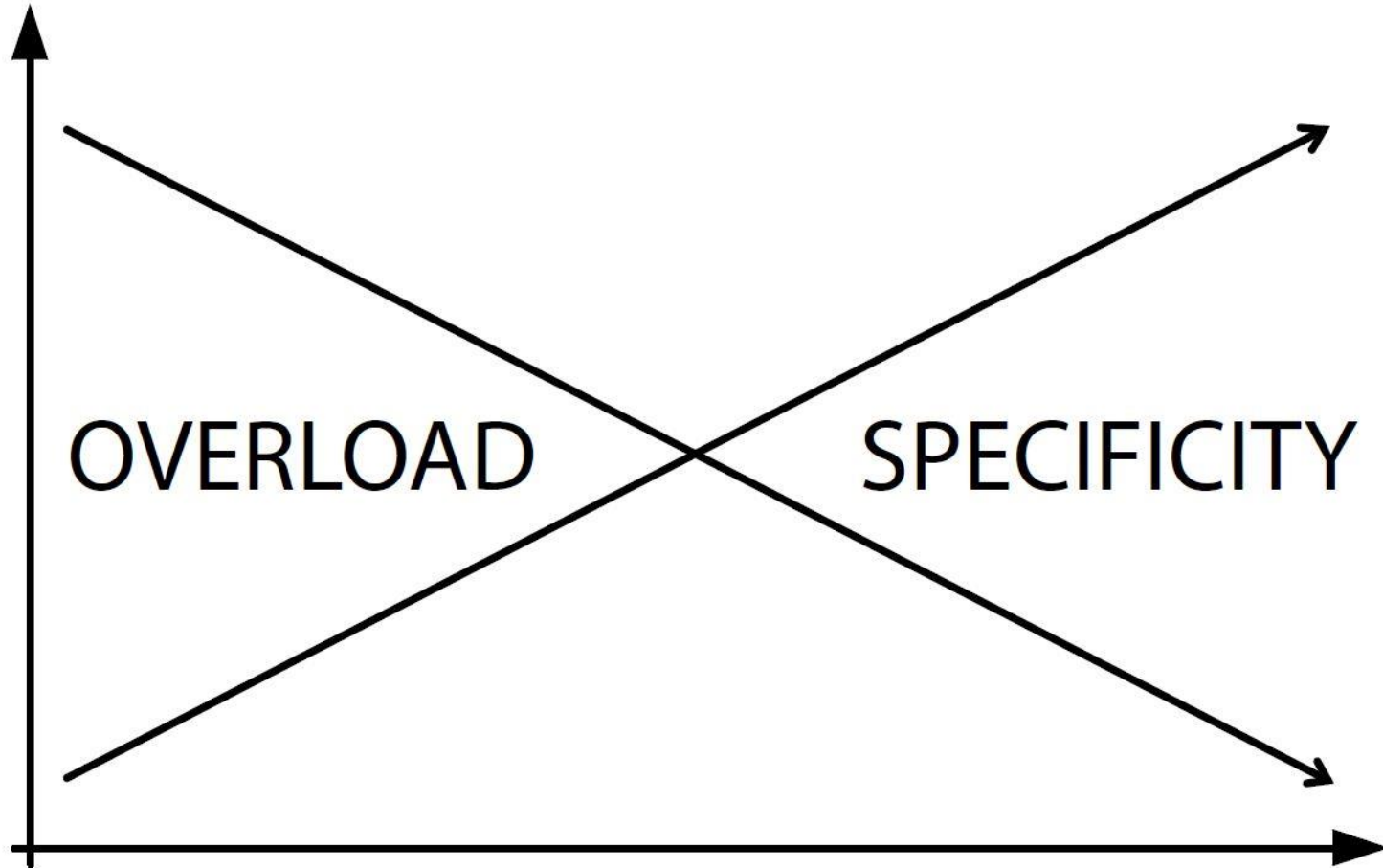
ELITE SPECIAL STRENGTH

EXERCISE

LOAD

- | | |
|----------------------------|--------------------------|
| A. Eccentric lifts ----- | A. 125-150% of max |
| B. Speed lifts ----- | B. 30-40 (60-80)% of max |
| C. Drop jumps ----- | C. 5 jumps, 10 sec rest |
| D. Concentric jumps----- | D. 3 jumps, 10 sec rest |
| E. Concentric throws ----- | E. 3 throws, 10 sec rest |
| F. Lockouts ----- | F. 3-5 60-80% of max |

TRANSFER



PERIODIZATION-DISCUS

Oct	2-3 times a week	40-50 throws	2.0-3.5kg	80-90%
Nov-Dec	4-6 times a week	50-80 throws	2.0-3.0kg	90-100%
Jan	5-6 times a week	10-40 throws	2.0-2.5kg	95-100%
Feb-Mar	4-6 times a week	50-80 throws	2.0-3.0kg	90-100%
April-May	5-6times a week	10-40 throws	2.0-2.5kg	95-100%
Jun-Aug	4-6 times a week	20-40 throws	1.75-2.5kg	90-100%
Sep	3-4 times a week	20-30 throws	2.0kg	90-100%

Transfer

Daniel Ståhl

- 2.0 kg discus 71.29m
- 3.1kg (tool, 36cm) 72.50m

Gerd Kanter

- 2.0 kg discus 73.38m
- 2.5kg (tool, 32cm) 75.50m

Transfer

Simon Pettersson

- 2.0 kg diskus 65.84m
- 2.5kg (tool, 32cm) 68.00m

Jakob Gardenkrans

- 2.0 kg diskus 63.63m
- 2.5kg (tool, 32cm) 63.30m

To peak when it counts

- **After max volume 4-12 weeks after**
- **Adaptation and variation**
- **Volume and intensity**
- **Last lifting session 48-72 hours before**
- **Last throwing session 24 hours before**
- **Rest**
- **Wake up call**
- **Compete**

Peaking

- 8-10 weeks
- 32-50 sessions
- Throw 4-5 times a week and have minimum one performance session a week that is done on the **second session** after rest
- You have to throw yourself in shape, no matter what period you are doing in the weight room

Training

- You are ready the last 10-14 days
- Rest is as important as training
- Mentally stable technical security
- Feel good physically and take care of the body
- Good balance in training as well as rest
- Model training
- The last session does not have to be good
- Active rest, do not stare at the wall waiting
- Have fun and enjoy it

Competition

- **Game plan or competition plan**
- **Call room rules**
- **Expect problems, deal with it**
- **Make it happen**
- **Introvert or extrovert behavior**
- **Respect your competitors**
- **Think about one thing, B plan**
- **Have fun, enjoy it**

Competition Day

You are ready – follow your plan

Think about ONE thing, not two

Remember this!

- **When do you rest?**
- **Travel to a meet, treatment**
- **Wake up the body**
- **Compete**
- **Organize training after meet**
- **Organize training before travelling back**
- **Travel home, treatment**
- **Rest, sleep, eat**

Important factors

- **Prehab instead of rehab** (physically)
Take always one step back if a chance of an injury
- **Preparation of both brainhalves** (mentally)
Be prepared on unexpected situations in meets,
let your competitors make the mistakes
- **Learn to throw many throws** (technically)
Keep your technique even if tired

My message

- **Throw as much as possible** (technical, speed)
- **Get as much horse power as possible** (physical)
- **Train the situation** (mental)
- **Choose a method, training plan** (organisation)
- **Never make any excuses** (personality)
- **Enjoy it** (lifestyle)