

BLOCK PERIODIZATION IMPLEMENTATION WITH AN AMERICAN FOOTBALL ATHLETE

By: Mark McLaughlin

Over a year and half ago SF came to Performance Training Center to begin working on his physical preparation for college football. After a lengthy evaluation, which included Omegawave testing, physical testing, training history, performance goals, and injury history a long term training strategy was developed. This training program was heavily influenced by the work of Dr. Verkhoshansky, Val Nasedkin, Charlie Francis, and Atko Viru. We also took into account the volume of work done in winter conditioning camps, spring practice, and other mandatory team training, outside of Performance Training Center. The goal during these periods was **SURVIVAL**. We were extremely happy when no injuries were reported during this time. Common sense was a big part of the development of training blocks leading into these periods. For instance this year the winter conditioning consisted of lots of change of direction work, short sprints, and other drills which were all down in a gymnasium. The design of this program was a preparation block for high level basketball players. Once this period was completed we were able to begin the next block. The lifts we used were limited to squats, bench press, jump squats with a barbell and kettle bell, and basic assistance work for both upper and lower body. The block periodization we implemented was heavily influenced by Dr. Verkhoshansky. Our sport specific conditioning and aerobic development was taught to me by Val Nasedkin. The regeneration (massage, stretching, autogenic training, etc) and nutritional programs were prescribed by fellow Athletic Development Coach from Performance Training Center, Landon Evans. The nutritional program was a cyclical setup and caloric and macronutrient needs were influenced by Lyle McDonald.

In-season program:

At this time SF is continues to train under the guidance of Performance Training Center while in-season. He also is following the nutritional guidelines which Landon Evans set up for him based on the in-season demands of practice and games.

Review of overall program:

Since reviewing the program of SF there are some changes in which we will be making in the upcoming year once his season has been completed. After a short restoration block of 2-3 weeks we will begin a plan on body recomposition based on our goals. We will also focus later work on bringing up maximum strength levels higher then we achieved this past year. We will also finalize the pre-comp phase with a block dedicated to sprint and higher volumes of sport specific work then what was programmed this past year. I also learned that during some of these concentrated blocks the psychological factor of performing the same exercises week in and week out can take its toll. I will monitor this more closely next year.

Pre-Post test explanation and notes:

In regards to testing on the Omegawave jump pad all jump tests were performed with a straight leg landing.

With regards to the sprint times the method of capturing the times changed (from hand time to manual start electric finish). During this time we did not value these test as much as others.

<u>Skin Folds (using Lange Caliper)</u>			
Pre-test: 7-3-08		Post-test: 8-5-08	
<u>Sites</u>	<u>Measurement</u>	<u>Sites</u>	<u>Measurement</u>
Abdominal	10	Abdominal	8
Triceps	3	Triceps	3
Quadricep	14	Quadricep	13
Pectoral	4	Pectoral	4
Subscapula	12	Subscapula	9
Suprailiac	11	Suprailiac	9
Midaxillary	7	Midaxillary	6

Program Outline:

<u>Block</u>	<u>Block Duration</u>	<u>Summarized Block Properties</u>
1	Weeks: 6 Dates: December 10 th – January 4 th	Strengthening of ligaments and Tendons, cardiac output, introduction of low intensive jumps.
2	Weeks: 3 Dates: January 7 th – January 25 th	Intensive (80%+) work in the squat/bench was performed during this period using three days per week and aerobic capacity work on Tuesday/Saturday.
3	Weeks: 3 Dates: January 28 th – February 15 th	Work in the third block consisted of the development of explosive strength using jumps squats both with a barbell and kettle bell. Jumps were also included on these days 3/6/10 fold jumps for maximum distance. The bench press was replaced with explosive medicine ball throws.
4	Weeks: 4 Dates: February 18 th – March 14 th	The forth block consisted of the implementation of the complex method to further the development of explosive strength. We used 85-90% of loads for the squat followed by a rest period of 4-5 minutes and then we would complete low load jump squats.
5	March 15th – May 1st – Spring Camp	Concurrent restoration activities. Stretching, foam roll, low intensity aerobic work. Intensities and volumes during camp were at too high of levels do attempt any strength retention work.
6	Weeks: 2 Dates: May 5 th – May 16 th	This first block consisted of very general exercises which included squats, bench press, pull ups, reverse hyper, abs, glute ham raise. For the core exercises the intensity was increased every week so the progression was 3x10RM, Wk-2 3x8RM, for the squat and bench press. These workouts were performed two times per week Monday and Thursday. All assistance work was 3-4 sets of 10-15 reps.

7 **Weeks:** 4
Dates: May 19th – June 13th

This block consisted of intensive efforts with weights between 80-95% for the squat and 70-80% in the bench press. Volume of maximal effort work during this period was extremely high. At the end of this block the introduction of explosive strength exercises consisting of jump squats were introduced. Aerobic capacity work is performed during this block using the bike.

8 **Weeks:** 4
Dates: June 16th – July 11th

This block consisted of the development of explosive strength and reactive strength with jump squats and depth jumps using box heights between 18-30".

9 **Weeks:** 4
Dates: July 14th – August 4th

This block consisted of the development of explosive strength and reactive work with jump squats and depth jumps using box heights between 18-30".

At the end of this final block high volume box jumps were prescribed to finalize the program. The special endurance work for the development of alactic & aerobic capacity efforts of <5 seconds are performed with a sled under AT. Rest periods vary from 30-60 seconds. Volume is kept between 30-50 reps. All weight training and jumping was performed in the A.M. and sport specific skill work in the P.M.

Improvements	1-4-08	8-4-08
Resting HR (bpm)	56	49
Alactic Index	17	18
Vertical Jump (in) OMW Jump pad	23	29.3
Flight Time (ms) OMW Jump pad	608	697
10yd sprint (s)	1.69 (manual start, electronic finish)	1.54 (manual start, electronic finish)
20yd sprint (s)	2.96 (manual start, electronic finish)	2.74 (manual start, electronic finish)
Bodyweight (lbs)	200 (no body fat taken)	7-3-08: 210lbs @ 7.7% 8-5-08: 210lbs @ 6.5%
Alactic Test OMW Jump pad	4.99 Moderate Power	6.39 Very High Power

Athlete Readiness Analysis

