

## Theoretical model of long jump training for the American collegiate system

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“*Each year, a group of American coaches from around the country hold an informal meeting of what is known as the Allerton Group. The purpose of this group is to exchange coaching information and experiences to the mutual benefit of the participants. In 1988, the group discussed the theoretical parameters of long jump training and their application within the competition programme of an American college or university. The model illustrated here is a summary of their discussion.*”

### Acknowledgement

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### Introduction

This theoretical model represents our opinion on the preparation of a long jump specialist within the context of the American collegiate system. It is not presented as a definitive statement on preparation of a long jump specialist, rather it reflects the unique demands necessary to train within the context of the American collegiate system. This represents an attempt by a group of American coaches to address the problem of long term development within a system that places a premium on immediate results.

The single periodization model is utilized. This will allow the athlete to better meet the competitive demands at this stage of development and still work on the physical qualities needed to advance to a higher level of competition. In the American collegiate system the indoor and outdoor national cham-

pionships are only twelve weeks apart, therefore we felt that it would be better to slightly unload for the indoor championship rather than have two distinct competitive periods with a transition that would detract from his training. The close proximity of the outdoor championship would not allow adequate preparation.

This model was developed at the annual meeting of the Allerton group - a group of coaches who meet once a year to share ideas on training and to compare training programme results from the previous year and plan for the following year. The coaches who attend all share a common language of training theory and some agreed upon models of training methodologies. This represents a form of cooperative coaching that results in information exchange of the highest level.

#### **Model programme**

NAME: Jaque Rabbit  
TRAINING AGE: Three  
HEIGHT: 1.83  
EVENT: Long Jump  
CHRONOLOGICAL AGE: 20  
WEIGHT: 79.5 kg

#### **PERFORMANCES:**

Long Jump: 7.40  
100M: 10.60  
30 M Crouch: 4.10  
30 M Fly: 3.15  
Standing Long Jump: 3.00m  
Standing Triple Jump: 9.40m  
Overhead Shot: 15.00m  
Forward Shot: 14.00m  
Power Clean: 100kg  
Half Squat: 181.5kg  
Snatch: 68kg

#### **Yearly objectives**

##### **PHYSICAL**

Build Dynamic Strength  
Improve Eccentric Strength

##### **TECHNICAL**

Improve Preparation for takeoff  
Improve Takeoff mechanism

##### **COORDINATION**

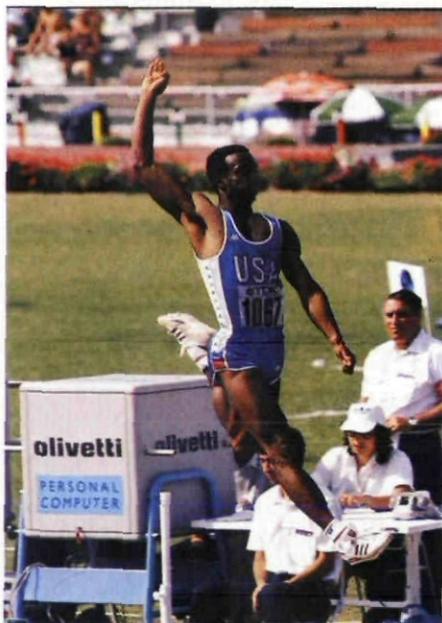
(To link the physical and technical demands)

Maintain Speed  
Build Core (Pillar) Strength  
Maintain Strength Endurance  
Maintain Speed Endurance  
Maintain Work Capacity

The rationale behind these objectives is to have the athletes focus on those qualities that are having the most negative effect on performance and to maintain the qualities that he already has.

##### **MACROCYCLE LENGTH**

Forty two weeks broken into phases as follows: General Preparation - 20 weeks; Special Preparation - 10 weeks; Competition - 12 weeks.



Larry Myrricks (USA)

## General preparation

<b>Objectives</b>	<b>Means</b>
Initial evaluation	Field tests
Work capacity - specific to the objectives stressed	Multi jumps and multi throws with medicine ball and shot
General strength	Emphasis on weak lifts
Core work	Medicine ball work and core circuits
Introduce elastic strength	Long bounding and in place jumps (see example below)**
General coordination	Drills and games that stress body awareness and coordination
Speed	Acceleration work and resistance running - tire pull and hills
Aerobic capacity	Extensive tempo endurance 200-400m
Mobility	Partner stretching
<b>** Elastic strength - Example</b>	
In place jump - no horizontal displacement	
Hops in place.	
Squat Jump - emphasis on slow down movement	
Jump down off 18-24 inch box (no rebound)	
jump up onto box waist high.	

## Special preparation

Goal: Preparation for the competitive means of training that will follow in the next phase	
<b>Objectives</b>	<b>Means</b>
Evaluate test results to determine how much more general work must be emphasized	Field tests
Dynamic strength** Emphasize during first half of the cycle (See below)	Weight training
Elastic strength** Emphasize during the second half of the cycle (See below)	Short response jumps
Speed - acceleration work early in the cycle changing to an emphasis on absolute speed	Block starts & resistance running. Flying 50 & 60 m runs
Speed endurance (Alactate capacity)	3-4 sets of 4x50 m with 60 sec recovery 3 min between sets
Coordination	Event specific drills
Work capacity - maintain	Extensive tempo endurance 100m to 300m
Technical	Approach work - emphasis on acceleration pattern, takeoff work

**\*\* Dynamic/Elastic Relationship**

<p><b>Dynamic</b> (Horsepower) Hang cleans Snatch Variations of the above movements Speed squat Jump squat</p>	<p><b>Elastic</b> (Elasticity &amp; speed of movement) Timed multi jumps &amp; Bounding with approach Multi throws with various weight implements Sprint drills Run/jump drills - event specific</p>
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Sample seven-day microcycle in the sixth week of the special preparation period. This also represents the first week of the second mesocycle in special preparation.

	<b>Mon</b>	<b>Tues</b>	<b>Wed</b>	<b>Thurs</b>	<b>Fri</b>	<b>Sat</b>	<b>Sun</b>
<b>AM</b>	Wt Trn Snatch		Special Strength		Wt Trn Clean	Wt Trn (Speed Emphasis) Accel Work	
<b>PM</b>	Tech (Specific) Speed	Alactate Short Speed Endurance	Technique (General)	Aerobic Capacity	Technique (Specific)	Rest	Active Speed

**Competition phase**

<p>Goals: 1) Allow for adaptation to the previous training stresses. 2) Stabilize performance at a new level.</p>	
<p><b>Objectives</b> Peak performance in sprint endurance Highest intensity in dynamic strength Emphasize elastic strength Speed Tactical</p>	<p><b>Means</b> Competition in 200m  Squat emphasis 4-6 weeks Snatch emphasis 3-3 weeks 2 to 3 reps Light multi throws Shock method - Depth jumps Emphasis on adaptation rather than loading Simulation and modeling of competition in training</p>

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