

## UP TO-DATING THE APPROACH TO THE LEARNING THE JUMPS AND LEAPS IN THE TOP AEROBIC GYMNASTICS

G. NICULESCU<sup>1</sup>    D.I. LĂCĂTUŞ<sup>2</sup>    Ü. TÜRKÇAPAR<sup>3</sup>

**Abstract:** *The group of jumps and leaps in the top aerobic gymnastics incorporates, according to the Scorepoints of the International Gymnastics Federation, the largest number of families and elements – 13 families of elements and about 190 elements. The volume and the different manners of expression offer a lot of solutions for the composition area, with regard to the harmony of the movement, esthetics, spectacularship, difficulty, dynamics, inspired transmission of ideas through movement as well as its performances thanks to combined qualities.*

*The jumps are spectacular, highly appreciated and they may solve the tie-breaking, offering substantial bonus and larger possibilities to choose and to adapt. With such a perspective, it appears the objective necessity to learn seriously and correctly the jumps, having as ground quantity and quality accumulations thanks to methods of high-efficiency.*

**Keywords:** *top aerobic gymnastics, elements of difficulty, Jumps & Leaps.*

### 1. Introduction

In the harmony of composition, where is necessary to get an well-balanced distribution and an equal representation of each group of movements or families, the group of jumps and leaps, thanks to the volume, number of families, possibilities of execution, take-off, final execution (standing, scale or push-up), offers the biggest number of solutions for such matter. In the pair, trio or group events, the elements of jumps & leaps group bring more spectacular value as they are performed in a synchronic way. The

optimum parameters of each jump and leap emphasize motor qualities like the take-off, mobility, equilibrium, co-ordination and strength. The images offered by the jumps and leaps in an exercise have an extreme value due to their parameters, created by the trajectory, the design of the body segments and the changes required by it.

### 2. The envisaged matters

In the top aerobic gymnastics, the jumps and leaps are accessible, thanks to a large scale of difficulties (from 0.1 to 1.0) as well as spectacular and appreciated. By a

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<sup>1</sup> *Spiru Haret* University.

<sup>2</sup> Sport Club Triumf, Bucuresti, Romania.

<sup>3</sup> Ahi Evran University, Kirsehir, Turkey.

large range of execution, with one-foot start (leaps) or two-feet start (jumps), standing of with two steps of take-off, landing in standing position, sagital scale in push/up (with one or both arms), jumps and leaps become strong means to establish the contain and the technical and artistic tie-breaking during the competition. By such components, it is

We will show the dynamics of jumps and leaps in the 10 World Championships:

Table 1

Year Event	1995 Paris	1996 Haga	1997 Perth	1998 Catania	1999 Hanovra	2000 Riesa	2002 Klaipeda	2004 Sofia	2006 Namjin	2008 Ulm
<b>Ind. F</b>	33%	35,5%	36,85	37,5%	39,1%	39,8%	33,7%	26,6%	25,9%	25,5%
<b>Ind. M</b>	34,7%	35%	38,2%	34%	35,4%	37,1%	33,8%	25,4%	25,1%	24,2%
<b>Pairs</b>	26,1%	27%	28,3%	29,2%	30%	31,1%	26%	25,5%	24,7%	23,8%
<b>Trio</b>	26,6%	26,9%	28,1%	29,1%	27,7%	29,3%	24,6%	25,5%	26,8%	24,4
<b>Group</b>							22,4%	26,2%	26,7%	24,4%

To the Goup C of Jumps and Leaps belong 13 families of elements: Air turn, Free fall, Gainer, Sagital scale to push up, Tuck jump, Straddle jump / leap, Cossack jump, Pike jump, Split jump / leap, Frontal split jump, Switch split leap, Scissor Kick, Scissors leap. Most of them have the origin in the Artistic or Rhythmic Gymnastics. Singular differences in the Aerobic Gymnastics regard the take/off area or the modalities of landing. The tak-off has to be specific one and the landing through push-up is unique in the aerobic gymnastics.

There are 4 phases in top aerobic gymnastic jumps and leaps: preparing the take-off or the impulse; the impulse, the flight and the landing.

- The **take-off** is a specific one by connecting the jumps/leaps directly with specific basic steps or by execution of two walking or running steps. Jumps/leaps can be performed standing without take-off.

assured the diversity of elements and the level alternation as the Rules require.

By an analysis of the dynamics of jumps and leaps included in the final exercises in all 10 World Championships, we could find a third of all elements incorporated in the exercise composition belongs to this C Group - the group of jumps and leaps.

- The **impulse** is performed with one foot or by both feet. It has to be powerful, short, strong and to provide the flight height.
- During the **flight** feet may realize scissors, powerful string opening, turning the body on the main axis, longitudinal and cross or combined movements.
- The **landing** should be: standing on one foot, standing, push-up (push-uping, sagital and frontal scales)

According to the body position in air, the are three categories of jumps:

1. vertical
2. from vertical to horizontal
3. horizontal.

While teaching quickly and seriously the jumps and leaps in the top aerobic gymnastics we should use didactic strategies taking in mind the physical, psychical support, positive transfer of movement, complex and complementary

motor experience through the basic technical mechanisms. To reach such desiderata, we are proposing the following approach to teach/learn the jumps and leaps:

- i. *Getting the necessary physical support*: strength, detent, mobility of coxal-femoral joint in all planes, space/time orientation, equilibrium;
- ii. *Learning the general mechanisms*: touch-down - take-off, turning on the boy longitudinal axis, landing: standing, push-up, sagital/frontal scale;
- iii. *Learning the basic elements* of each family of elements;

- iv. *Assuring a correct structural approach* according to sustain possibilities: a correct chronological order of goals, to take advantage from the previous experience, aptitudes and accumulated skills.

Using such approach the learning will be strong and of high quality and efficiency if are involved:

- algorithmic systems to learn and improve the elements;
- checking norms and events regarding the physical and technical preparation.

Now, we will show algorithmic systems to learn, to consolidate and to improve the Straddle Jump to Push up.



*Straddle Jump To Push Up – value: 0,5 p.*

**Technical description:** step, énsamble (preparation – take-off), straddle, frontal bending and bringing nearer the feet, facial prone parallel with the ground: the feet will come to the position by a back movement through a frontal scale (flight), landing in push-up / final push-up.

**Starting level:**

- straddle jump;
- pancake (passing through frontal scale from forward-backward);
- landing in push-up from standing without sump and from a right jump.

**Ist SERIES – preparing the mechanisms and the necessary physical support**

- i. Jumps/leaps with maximum take-off and vertical elevation;
- ii. pending, raising the feet up to the seizing point, closing and opening;
- iii. push-ups with take-off and clapping hands;
- iv. frontal scale
  - frontal scale jumps on nets
  - frontal scale jumps on the wall bar;
- v. facial prone support with bended arms, jump in standing, impulse and soft landing with prone support by bended arms (push-up).

**IIInd SERIES – learning the jump***For impulse:*

- a. énsamble, maximum height (checking the correctness, amplitude and carriage);
- b. Deep jump (30cm), touch-down, take-off;
- c. Step, énsamble, raising.

*For the flight:*

- d. Sitting, open arms – passing by frontal scale to facial prone and returning;
- e. The same movement from dorsal cubitus, raising to sitting;
- f. Jump with maximum amplitude and landing on soft mats;
- g. Jump with landing on a normal mat;
- h. Jump with landing on gymnastic floor;
- i. Jump with landing on competition floor;
- j. Jump standing, from énsamble, with impulse.

**IIIrd SERIES – Improving the jump**

- i. Jump with maximum parameters as per height, feet opening amplitude, carriage, landing;
- ii. Jump with different previous steps and other elements;
- iii. Jump with parts of the exercises or in a full exercise.

**Evolution and improving possibilities:**

- ½ TURN STRADDLE JUMP TO PUSH UP – 0.6
- 1/1 TURN STRADDLE JUMP TO PUSH UP – 0.8
- STRADDLE JUMP ½ TWIST TO PUSH UP – 0.6
- STRADDLE JUMP TO 1 ARM PUSH UP – 0.6
- 1/1 TURN STRADDLE JUMP TO WENSON PUSH UP – 0.9

**Check events:***A. General physical preparation*

- standing long jump
- vertical jump with impulse
- sit-ups with one foot
- standing triple jump
- mobility: sagital scale on the right/left foot, frontal scale.

*B. Specific physical preparation*

- two forward balances and keeping vertical scale
- keeping the straddle support
- cubitus dorsal, two scissors on sagital plane and stopping in reverse scale
- facial pending at stall bars, balancing the feet in sagital scale
- three connected jumps: pike, straddle, scale jump.

*C. Technical preparation*

- full execution of the element;
- combining the execution with other elements.

Now, we will show the schedule to learn and improve the **STRADDLE JUMP TO PUSH UP** during 6 months, **between January 12th – May 31st, 2009**, till the first big competition. Training sessions five time a week, including:

- *Preparing period* (14 weeks) with: accommodation mesocycles (3 weeks). 2 basic mesocycles (8 weeks) for accumulation and stability and a mesocycle for preparation and cheking (3 weeks);
- *Precompetitive period* (4 weeks) with: refurbishing and pre-competitive mesocycle;

*Competitive period* (2 weeks) with a competitive mesocycle.

*Schedule of learning and improving the straddle jump to push up female gymnasts, first category (15-17 years)*

Table 2

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>SERIES I</b>																				
EX.1	3x25	5x25	2x30					3x25	5x25	2x30					3x25	5x25	2x30			
EX.2	3x10	5x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10
EX.3	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15	2x15
EX.4			3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10	3x10
EX.5			3x3	3x4	3x5	3x6	3x7	3x8	3x9	3x10	3x5	3x6	3x7	3x8	3x9	3x10				
<b>SERIES II</b>																				
EX1			10x2	10x2				10x2			10x2									
EX.2					10x2				10x2			10x2								
EX.3						10x2				10x2			10x2							
EX.4	4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5											
EX.5										4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5	4x5
EX.6			15	15	15	15														
EX.7							15	15	15	15										
EX.8											15	15	20	20						
EX.9															10	10	10			
EX.10															4	4	4			
<b>SERIES III</b>																				
EX.1										10	10	10	10	10						
EX.2															6	6	6	6	6	6
EX.3															6	6	6	6	6	6

**Conclusions**

- Achieving the physical support is the fundament to learn and improve the jumps and leaps in the top aerobic gymnastics.
- Learning the basic mechanisms of the main jumps and leaps of each family facilitates the learning of jumps and leaps of high difficulty.
- Learning the basic jumps and leaps, firstly with a net, a spring board and a mini spring board provide o quick and sure learning of jumps and leaps.
- The judicious planning of jumps and leaps represents a contribution to get the competition goals;
- Using the system of norms and events for physical and technical controls is a concrete modality to evaluate the learning and to improve the jumps and leaps in the top aerobic gymnastics.

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