SUMMARY OF APPENDIX 6 HOUSKEEPING

- There is a maximum of 5 declarations per family per Hybrid, with a limit of 2x per technique. Factoring in hybrids will be limited to 10 code declarations, 5 at 0.5 and 5 at 0.3.

- Spin Value Recalibration (recommendation from community to increase values)

SB	0.15	SCB	0.40	SCDB	0.45
S1	0.40	SC1	0.95	SCD1	1.00
S2	0.90	SC2	1.95	SCD2	2.00
S3	1.40	SC3	2.95	SCD3	3.00
S4	1.90	SC4	3.95	SCD4	4.00
S5	2.40	SC5	4.95	SCD5	5.00
S6	2.90	SC6	5.75	SCD6	5.80
S7	3.40				
S8	3.90				
S9	4.40				
S10	4.90				

- **The recalibration of spin values required a few DD adjustments to the Thrust family as follows:**

  Thrust level 4 DD increases from 0.80 to 0.85

  Thrust level 6 DD increases from 1.10 to 1.20

  Thrust level 7 DD increases from 1.50 to 1.60

  Thrust level 8 DD increases from 1.70 to 1.90

  T10 with value of 2.30 (T9b edited to "T9" throughout - value unchanged).

- Bullet j) in Airborne Weight – the word "point" was used instead of "turn".

  The lift to single or double leg in Vertical Position with 180°/360° rotation must be gradual and not reach the single or double leg Vertical Position until 135°/270° - meaning if lift finishes at ¾ point and then a ¼ turn in Vertical Position is executed this is acceptable, however if less than 135°/270° is accomplished – the rotation would be subject to a Base Mark.

- Airborne Weight A6-A8 revised to A6-A10 to make room for new declarations to better support developing athletes (new A6 and A7, previous A6-A8 now A8, A9 and A10):

A6	3 seconds of up and down movements with one leg or a combination of one or two legs	0.80
A7	3 seconds of up and down movements with two legs	0.90
A8	Sustained height with one leg or a combination of one or two legs lasting equal or more than 3 seconds Or Isolated movements performed in a stable and fixed single leg position (within Vertical Position definition of 0-45 degrees) – isolated movements performed with other (non-fixed) leg lasting 3 seconds or more Or A combination of the two techniques (for example 2 seconds of isolated movements, then 1 second of a combination of one and two leg movements)	1.15
A9	Sustained height in Vertical Position lasting equal or more than 3 seconds	1.45
A10	Sustained height shown at least 3 seconds or more in Vertical Position performed in an unbalanced position	1.65

- Flexibility family additions/definition adjustments:

F3d	Fishtail to Knight or Knight to Fishtail (bending the moving leg through the vertical line ie through Bent Knee VP).
F4e	Fishtail to Knight or Knight to Fishtail (horizontal plane, along the surface)
F7	Surface Arch to VP (clearly stopping in VP)

- Flexibility family DD adjustments due to overuse/arching (back) injuries. Note: FB, F1, F2 and F3 levels unchanged.

F4	F4a, F4b, F4c, F4d. F4e, F4f	0.35
F5	F5a, F5b F5c	0.40
F6	F6a, F6b, F6c, F6d	0.45
F7	Surface Arch to VP (clearly stopping in VP)	0.50
F8a	Knight Join to Vertical Position while rotating 360°	0.65
F8b	Bent Knee Surface Arch Position to Vertical Position rotating 360° (Nova rotating 360°)	
F9	Surface Arch Position to VP rotating 180°	0.75
F10	Surface Arch Position to VP rotating 360°	1.00

14.6 APPENDIX 6 – HYBRID CATALOGUE

1. Introduction

- Article 2.6 of this Part Seven applies.
- As stated in the 'World Aquatics Artistic Swimming Manual for Judges, Technical Controllers, Referees and Coaches' regarding judging routines, the same principle will also apply for Technical Controllers: Hybrids may be performed close to or far from a Technical Controllers position and/or in moving water caused by the (intentional) power of actions, the number of Athletes performing, or the moving progression ("travelling") of the Hybrid, as such Technical Controllers must focus on what they see at or over the water surface.
- In regard to any hybrid techniques where compliance to specific angles or height levels is required:
    - If technology is available at a competition where Athletes can be accurately measured via analysis software for compliance to stated angles or height levels, then clear non-compliance to a required angle or level would result in a Base Mark.
    - For Difficulty Technical Controllers without technology – then non-compliance to a required angle or height level should be very obvious and clear in a video review (so far off the angle/height that there is no doubt). If too close to call and in doubt, then the ruling should go in favour of the Athlete.

12. Hybrids

Definition of a Hybrid:

- A free Hybrid (one intentionally being declared for Degree of Difficulty on a Coach Card) is defined as having a combination of five (5) or more movements performed with lower limbs with intentional apnea (head down under hips level).
- Short hybrid-like movements of 4 or less movements with or without intentional apnea OR horizonal movements along the surface with lower limb actions that have consequential apnea (rolling over, kicking, etc.) are considered as transitional movements.
- The definition of a Hybrid movement = a definitive change in the position or direction of the lower limbs as mandated by the choreography of the routine.

How to count Hybrid Movements:

A Hybrid Movement is a definitive change in the position or direction of the lower limbs as mandated by the choreography of the routine.

- Regarding entries and exits:

a) Front Pike Pulldown - the action of the body bending into the pike position is movement number one, with counting continuing from there.

b) Entry from a Ballet Leg - A Ballet Leg kick counts in the hybrid if used as an entry into the hybrid (kick up and then a Catalina like rotation, kick up and then into inverted tuck, etc.).

c) If starting from underwater, start counting from the first position – for example a pike, tuck, tabletop, or a submerged back pike (before a thrust).

d) No movements will be counted underwater – for example, a tuck from ankles at the end of a spin would count as one movement, however if the Athlete(s) tuck when completely submerged no movement will be counted.

e) Spins / Twists / Twirls: each ½ turn (180 o) will count as 1 movement.

f) A "swirl" action counts as one movement from its beginning to its clear stopping point or next clear action as momentum/force must be considered.

g) Fast kick type actions (for example fast "tendu" like action similar to ballet: movement in ballet where the working leg is extended along the floor until only the tip of the toe remains touching the floor) will count as 1 movement (i.e. there is a clear exertion of energy/muscle tension and then a recovery).

h) When rotating and performing leg movements at the same time, only the rotations will be counted.

i) Cadence: each cadence movement will count as 1 movement. You do not count the movements of each Athlete as they all do the same action, but on their own counts.

Hybrid difficulty components:

- Hybrid difficulty components are declared skills with assigned Degree of Difficulty values that comprise transitions in a hybrid and are grouped in the following "families" by level:
  - THRUSTS (T)
  - SPINS (S)
  - TWISTS (R) – which include Twirls and Swirls
  - FLEXIBILITY (F)
  - AIRBORNE WEIGHT (A)
  - CONNECTIONS (C)
- All families include a first level which is defined as Basic (B), then each family progresses from level 1 upwards to a maximum of level 10.

Bonuses:

- Open Team Technical, Open Team Free and Open Free Combination routines will include a bonus for each Pattern Change executed valued at 0.20 each up to a MAXIMUM of 6 Pattern Changes declared per Hybrid. If more pattern changes are executed, they can't be declared nor will they receive any additional credit.

Hybrid Base Mark:

- Base Mark for all hybrids is the same and has a value of 0.5.
- The Hybrid Base Mark value of 0.5 is added to the value of the hybrid Degree of Difficulty, and it is the value (0.5) the hybrid will go to if not successful in achieving the declared difficulty.
- Total Hybrid Declared Difficulty Value is calculated as follows:
  - *Total Hybrid Degree of Difficulty = BASE MARK (0.5) + MOVEMENTS (Families) + BONUS (Team only).*

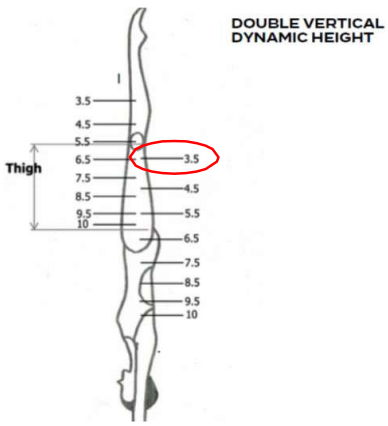
Thrusts (T)

The Thrust (T) family includes variations of Thrusts as defined in Basic Movements: "From a Submerged Back Pike Position with the legs perpendicular to the surface of the water a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a Vertical Position*. Maximum height is desirable".

*Note: other 1 and 2 leg body positions are allowed as per the Thrust levels defined.

a) Whenever "Thrust" is stated it means two legs, otherwise one leg is stated.

b) The minimum height for a Thrust to be able to be accepted is a 3.5 (Dynamic height) which is above the knees, meaning Technical Controllers must clearly see that height level achieved, or the thrust will be subject to Base Mark.

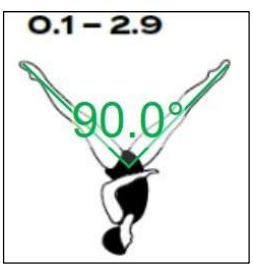


c) Thrust endings with crashing OR with descent are clearly differentiated and defined in the difficulty table at different levels and values.

For a Thrust and vertical descent

- If a descent is executed from maximum height until below the knee (kneecaps submerged) and then a crash occurs, this still applies as an accomplished descent.

d) A Thrust with flexibility must exhibit flexibility at maximum height like Airborne Split Position or Vertical Position to Knight or back flexibility (i.e. arch with legs backwards at 45o). A thrust with Airborne Split Position or a split variant must show body alignment under hips, as described in Basic Body Position and must show flexibility at minimum of "scissors (90°) / 0.1-2.9 for split as per the 'World Aquatics Artistic Swimming Manual for Judges, Technical Controllers, Referees and Coaches'. Body alignment means lower back arched, with hips, shoulders, and head on a vertical line. Split variants may not exhibit bent front legs, and only back legs that bend downward (with the knee facing the ceiling / not inward).



e) For Thrusts with flexibility followed by a Spin or Twirl, the Spin or Twirl can begin at any time – i.e., the legs can be out of the Vertical Position cone.

f) For Thrusts followed by a Twirl = A rotation at a sustained height - height remains constant throughout the rotation. Therefore, any obvious change in height downwards is subject to a Base Mark. "Obvious" is defined as a drop in two height levels. So, if the Athlete starts above their knee (6.5) and drops to below knee (4.5) that would be a Base Mark. A change in one height level = execution.

g) In the case that a Thrust is performed that exhibits actions from different levels – declare the most difficult movement. For example, if a Thrust with Flexibility continued by catching (clearly stopping – stable height demonstrated) in a Vertical Position above the knees is performed, declare a T9.

h) Regarding a Thrust (T9) with catching Once the "stable height demonstrated for 1 second (1s) or more" in Vertical Position has occurred any difficulty movement can then be performed and be declared as per the rules, for example: T9 followed by A6, S3, etc.

i) Spins following Thrusts must drop gradually. Athletes who obviously hold the rotation at the ankle level (i.e. twisting vs spinning) will be subject to a Base Mark as per below standards:

- For Spin 180° to Spin 720°, that the entire rotation must be gradual.
- For Spin 1080°, that a maximum of one rotation at the ankle level is allowed.

Level	Code	Description	Degree of Difficulty Value
B	**TB**	Thrust with one or two legs followed by crashing on the surface	**0.30**
1	**T1**	Thrust with one leg followed by vertical descent	**0.45**
2	**T2a**	Thrust with one leg followed by Spin 180°	**0.50**
	T2b	Thrust with one leg followed by Twirl 180° and a crash	
3	**T3a**	Thrust and vertical descent	**0.65**
	T3b	Thrust with one leg followed by Spin 360°	
	T3c	Thrust with one leg followed by Twirl 180° and descent	
	T3d	Thrust with flexibility followed by crashing	
4	**T4a**	Thrust with one leg followed by Spin 720°	**0.85**
	T4b	Thrust with flexibility and descent	
	T4c	Thrust followed by Spin 180°	
	T4d	Flying Fish (with descent) *A thrust is executed to a Vertical Position and with no loss of height one leg is rapidly lowered to an airborne Fishtail Position*. After the Flying Fish the join may be with a straight or bent leg followed by a vertical descent. The declaration ends with the descent.* **The bottom leg must be out of the "Vertical Position cone" area* ***Reminder you may not combine with a rotation or vertical descent declaration*	
	T4e	Thrust followed by Twirl 180° in Vertical Position and a crash	
5	**T5a**	Thrust followed by Spin 360°	**0.90**
	T5b	Thrust followed by Twirl 180° (in Vertical Position) and descent	
	T5c	Thrust with flexibility followed by Spin 180°	
	T5d	Flying Fish Spin 180° or Thrust Fishtail Helicopter Spinning 180° *Same definition as T4 Flying Fish with a Spin 180° as ending*	
	T5e	One leg Thrust with Twirl 180° followed by Spin 360°	
6	**T6a**	Thrust with flexibility followed by Spin 360°	**1.20**
	T6b	Thrust with Twirl 180° (in Vertical Position) followed by Spin 360°	
	T6c	Flying Fish 360° or Thrust Fishtail Helicopter Spinning 360° *Same definition as T4 Flying Fish with a Spin 360° as ending*	
7	**T7**	Thrust followed by Spin 720°	**1.60**
8	**T8**	Thrust with flexibility followed by Spin 720°	**1.90**
9	**T9**	Thrust to height of 8.5 (waist) or higher continued by catching (clearly stopping - stable height demonstrated for 1s or more) in a **Vertical Position** above the knees or higher	**2.00**
10	**T10**	Thrust to height of 8.5 (waist) or higher followed by Spin 1080° or more	**2.30**

Spins (S)

This family includes all types of Spins – which is a rotation in a Vertical Position (as per General Requirements). It includes ascending/descending Spins and combined/reversed Spins.

a) When Spin is stated, it can be either an ascending or descending Spin (same code and value) – ascending and descending are NOT differentiated.

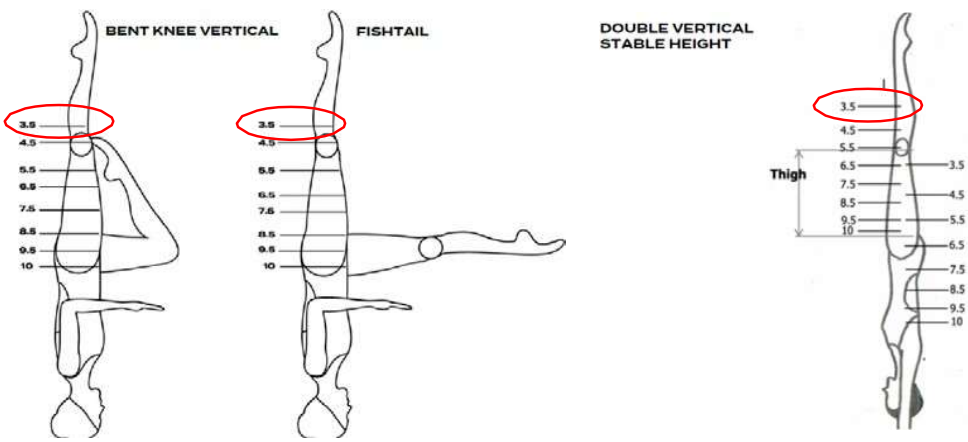
b) For descending Spins in free hybrids, the definition of degrees is by the submersion of the toes, OR when the rotation has come to a complete stop at the ankles level. Please note this is different than for Figures or Technical Required Elements (see BM 13).

c) For ascending Spins in free Hybrids, the definition of degrees begins when the toes break the water's surface, OR at the ankles level. Please note this is different than for Figures or Technical Required Elements (see BM 13).

d) A **Spin** (ascending or descending) is defined as a gradual change of a minimum of two height levels. Descending spins must always end at the ankles or the submersion of the toes. A change of only one height level during a spin declaration would be subject to Base Mark.

e) Spin allowances (BM 12 and 13) do not apply to Spin declarations in free Hybrids. Athletes must fully complete rotations as declared on the Coach Card. For example, if a S2 is declared (Spin 720° with one or two legs), then the Difficulty Technical Controllers will be watching for completion of at least a full 720°+ following the above principles. Rotating more than declared is acceptable; rotating less than declared is subject to a Base Mark.

f) A minimum height of 3.5 as per single and double leg height chart must be demonstrated to start a spin descending and a minimum height of 3.5 as per single and double leg height chart must be demonstrated to finish a Spin ascending:



g) Ascending and descending spins must rise/drop gradually. Athletes who obviously hold the rotation at the same height level (i.e., twisting vs spinning) will be subject to a Base Mark as per below standards:

- For Levels SB-S2: Entire rotation must be gradual.
- For Levels S3-S5: A maximum of one rotation at each height level is allowed.
- For Levels S6-S10: A maximum of two rotations at each height level is allowed.

h) Spin Level Basic (B), Level 1 and Level 2, are for spins with one or two legs. Beginning at level 3 all Spins must be performed with two legs.

i) Spins will have the rotation of the BODY counted "wall-to-wall" to accomplish the declared degree of rotation. For rotations of 360° or more - the wall or direction you start at is the wall or direction you must finish for Technical Controllers to verify completion of rotation. Rotating more than declared is acceptable; rotating less than declared is subject to a Base Mark.

j) Various modifications of leg positions during Spins are allowed as long as the one or two leg position meets the definition of Vertical Position as per General Requirement a). Unbalanced or off-angle Spins are not differentiated, and those movements would be considered in Artistic Impression.

k) When “two legs” is stated, it means Vertical Position definition (two legs within 45o of vertical), and “one leg” means one leg within 45° of vertical. Both as per General Requirement a).

l) Spins with one leg includes Bent Knee Vertical Position, Fishtail/Crane, Knight, and other one leg Vertical Position options or variants.

m) Rotations with two legs include Vertical Position, Fishtail within 45° of Vertical, Arched Vertical Position and other positions where 2 legs are clearly visible within 45° of the vertical line.

n) Joining/opening/bending/extending movements from one leg positions to two leg (Vertical Position) positions (or two-leg to one leg positions) such as Bent Knee Vertical Position/Fishtail to Vertical Position or Vertical Position to Bent Knee Vertical Position/Fishtail, are considered in all “one leg” Spin classifications.

o) A Combined or Reverse Combined Spin (defined in the table as “Combined”) will be counted only in the case of an equal number of descending and ascending or ascending and descending rotations with no stop that start and finish at the same height (for example if toes breaking the surface is beginning of Spin, then toes submerging must be the end).

p) A Combined or Reverse Combined Spin in Levels Basic, 1 and 2 where it states, “one or two legs” MAY include a combination of one and two legs:

- Example 1: starting in a Bent Knee Vertical Position, spin descending 360° while joining to Vertical Position, and then spin ascending 360° staying in Vertical Position.
- Example 2: starting in a Bent Knee Vertical Position, spin descending 360° while joining to Vertical Position, then ascending spin 360° while returning to a Bent Knee Vertical Position.

q) Ascending and descending during Combined or Reverse Combined Spins (including Two-Direction) must rise/drop gradually. Athletes who obviously hold the rotation at the same height level (i.e., twisting vs spinning) will be subject to a Base Mark as per the below standards:

- For Levels SCB-SC2 / SCDB-SCD2: Entire rotation must be gradual.
- For Levels SC3-SC5 / SCD3-SCD5: A maximum of one rotation at each height level is allowed.
- For Level SC6 / SCD6: A maximum of two rotations at each height level is allowed.

r) A “Two-Direction” Spin means a spin in one direction, followed without a pause by an equal Spin in the opposite direction.

For example: SCD2 - Combined 720° (one or two legs) = a descending or ascending rotation of 720° followed without a pause by an ascending or descending rotation of 720° in the opposite direction.

Level	Code	Description	Degree of Difficulty Value
B	**SB**	Spin 180° (one or two legs)	**0.15**
	SCB	Combined 180° (one or two legs)	**0.40**
	SCDB	Two-direction Combined 180° (one or two legs)	**0.45**
1	**S1**	Spin 360° (one or two legs)	**0.40**
	SC1	Combined 360° (one or two legs)	**0.95**
	SCD1	Two-direction Combined 360° (one or two legs)	**1.00**
2	**S2**	Spin 720° (one or two legs)	**0.90**
	SC2	Combined 720° (one or two legs)	**1.95**
	SCD2	Two-direction Combined 720° (one or two legs)	**2.00**
3	**S3**	Spin 1080° (two legs)	**1.40**
	SC3	Combined 1080° (two legs)	**2.95**
	SCD3	Two-direction Combined 1080° (two legs)	**3.00**
4	**S4**	Spin 1440° (two legs)	**1.90**
	SC4	Combined 1440° (two legs)	**3.95**
	SCD4	Two-direction Combined 1440° (two legs)	**4.00**
5	**S5**	Spin 1800° (two legs)	**2.40**
	SC5	Combined 1800° (two legs)	**4.95**
	SCD5	Two-direction Combined 1800° (two legs)	**5.00**

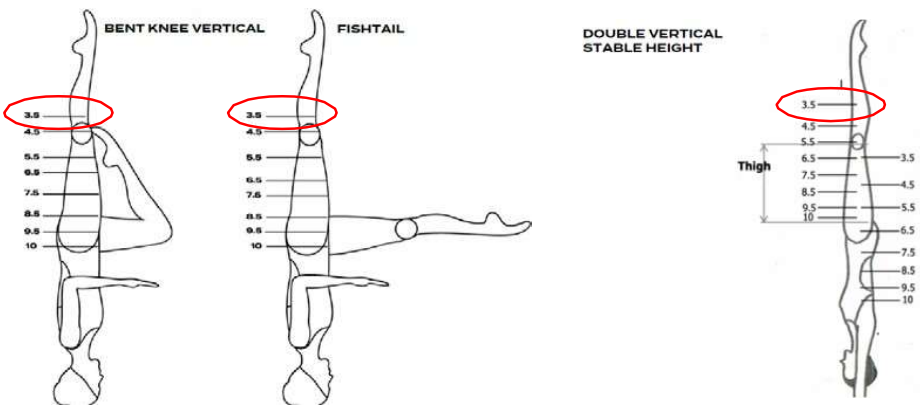
6	**S6**	Spin 2160° (two legs)	**2.90**
	SC6	Combined 2160° (two legs)	**5.75**
	SCD6	Two-direction Combined 2160° (two legs)	**5.80**
7	**S7**	Spin 2520° (two legs)	**3.40**
8	**S8**	Spin 2880° (two legs)	**3.90**
9	**S9**	Spin 3240° (two legs)	**4.40**
10	**S10**	Spin 3600° (two legs)	**4.90**

Twists including Twirls/Swirls (R)

This family includes Twists and Twirls (as defined in Basic Movements - the body remains on its longitudinal axis throughout the rotation) and Swirls.

a) Twisting or Twirling = A rotation at a sustained height - height remains constant throughout the rotation. Therefore, any obvious change in height downwards will be subject to a Base Mark. A change in height upwards will be considered in execution. "Obvious" is defined as a drop in two height levels. So, if the Athlete starts above their knee (6.5) and drops to below knee (4.5) that would be a Base Mark. A change in one height level = execution.

b) The minimum height for a Twist to be able to be accepted is a 3.5 (as per single and double leg height chart) meaning Technical Controllers must clearly see that height level achieved, or the Twist will be subject to Base Mark.



c) Swirl = A 1 or 2 leg rotation in a piked/arched body position (or other positions where the body is not aligned with its vertical axis), while turning. Swirls may have height variation - the legs can be lower than Vertical Position definition or can move in and out of Vertical Position area.

d) Twist allowances (BM 12 and 13) do not apply to twist/twirl/swirl declarations in Free Hybrids. Athletes must fully complete rotations as declared on the Coach Card. For example, if a 2R3 is declared - Twist 1080° (Vertical Position), then the Difficulty Technical Controllers will be watching for completion of at least a full 1080°. Rotating more than declared is acceptable; rotating less than declared is subject to a Base Mark.

e) Twists, Twirls and Swirls will have the rotation of the BODY counted "wall-to-wall" to accomplish the declared degree of rotation. For rotations of 360° or more - the wall or direction you start at is the wall or direction you must finish for Technical Controllers to verify completion of rotation. Rotating more than declared is acceptable, rotating less than declared is subject to a Base Mark.

f) Various modifications of leg positions during rotations are allowed as long as the one or two leg positions meet the definition of Vertical Position and the requirement to complete rotations (as per above point).

g) For ROB, RO1, RCB and RC1, the legs may be slightly bent during the rotation.

h) Rotations with one leg include Bent Knee Vertical Position, Fishtail, Crane, and other position options. Please note that Knight rotations are included in the Flexibility family; however, if a Knight is done as a 1 leg rotation declaration (1RB, 1R1, etc.) this is acceptable (not Base Mark).

i) Rotations with two legs includes Vertical Position, Fishtail within 45° of Vertical, Arched Vertical Position and other positions where 2 legs are clearly visible within 45° of the vertical line.

j) Joining/opening/bending/extending movements from one leg positions to two leg Vertical Positions (or two-leg to one leg positions): such as Bent Knee Vertical Position/Fishtail to Vertical Position, or Vertical Position to Bent Knee Vertical Position/Fishtail, are considered in all "1 leg only" Twist/Twirl classifications.

k) Unbalanced one leg twists are considered in all "1 leg" rotation classifications. Please see general requirement h) at point 5 of Appendix 6, below, for the definition of unbalanced.

l) When an Unbalanced Twist is being performed while simultaneously turning (for example RU4 is performed while turning a quarter turn for each unbalanced 360), the Difficulty Technical Controllers observe the knees of the athlete(s) to ensure the declared number of 360 rotations are executed (in this example 4) "wall-to-wall".

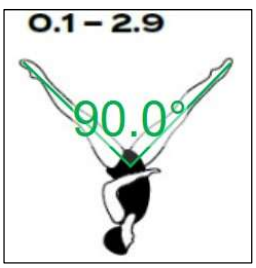
m) A Two-direction Twist means a rotation in one direction, followed without a pause by an equal rotation in the opposite direction. For example:

- RD1 - Two-Direction 360° (Vertical Position) = a rotation of 180° in one direction followed without a pause by a rotation of 180° in the opposite direction.
- RD2 - Two-Direction 720° (Vertical Position) = a rotation of 360° in one direction followed without a pause by a rotation of 360° in the opposite direction.

n) For Vertical Position open 180°/360° to Split (ROB/RO1) by the halfway point (90°/180°) the legs must be at least at 45° – meaning the opening must be gradual (not a Twirl 360° then open to Split rapidly). Also – the starting "Vertical Position" position must begin with feet/ankles touching.

o) Split close 180°/360° to Vertical Position (RCB/RC1) must not reach the Vertical Position until 135°/270° – meaning if close (where feet/ankles must be touching) finishes at ¾ point and then a ¼ turn in Vertical Position is executed that is acceptable, however if less than 135°/270° is accomplished – the rotation would be subject to Base Mark.

p) For ROB, RO1, RCB and RC1, Split position must show flexibility at minimum of "scissors (90°) / 0.1-2.9 for split as per the 'World Aquatics Artistic Swimming Manual for Judges, Technical Controllers, Referees and Coaches'.



Level	Code	Description	Degree of Difficulty Value
B	**RB**	Swirl 180°/Turn 180° non-sustained or up-down	**0.10**
	1RB	1 leg Twist/Twirl 180°	**0.15**
	2RB	Twist/Twirl 180° (Vertical Position)	**0.20**
	ROB	Vertical Position open 180° to Split	**0.25**
	RCB	Split close 180° to Vertical Position	**0.25**
1	**R1**	Swirl 360°/Turn 360° non-sustained or up-down	**0.20**
	1R1	1 leg Twist/Twirl 360°	**0.35**
	2R1	Twist/Twirl 360° (Vertical Position)	**0.45**
	RD1	Two-direction 360° (Vertical Position)	**0.50**
	RU1	Unbalanced Twist/Twirl 360° (Vertical Position)	**0.55**
	RO1	Vertical Position open 360° to Split	**0.55**
	RC1	Split close 360° to Vertical Position	**0.55**
2	**R2**	Swirl 720°	**0.40**
	1R2	1 leg Twist 720°	**0.75**
	2R2	Twist 720° (Vertical Position)	**0.95**
	RD2	Two-direction 720° (Vertical Position)	**1.05**
	RU2	Unbalanced Twist 720° (Vertical Position)	**1.15**
3	**R3**	Swirl 1080°	**0.60**
	1R3	1 leg Twist 1080°	**1.15**
	2R3	Twist 1080° (Vertical Position)	**1.45**
	RU3	Unbalanced Twist 1080° (Vertical Position)	**1.75**
4	**R4**	Swirl 1440°	**0.80**
	1R4	1 leg Twist 1440°	**1.55**
	2R4	Twist 1440° (Vertical Position)	**1.95**
	RD4	Two-direction 1440° (Vertical Position)	**2.15**
	RU4	Unbalanced Twist 1440° (Vertical Position)	**2.35**
5	**1R5**	1 leg Twist 1800°	**1.95**
	2R5	Twist 1800° (Vertical Position)	**2.45**
	RU5	Unbalanced Twist 1800° (Vertical Position)	**2.95**
6	**1R6**	1 leg Twist 2160°	**2.35**
	2R6	Twist 2160° (Vertical Position)	**2.95**
	RD6	Two-direction 2160° (Vertical Position)	**3.35**
	RU6	Unbalanced Twist 2160° (Vertical Position)	**3.55**
7	**2R7**	Twist 2520° (Vertical Position)	**3.45**
	RU7	Unbalanced Twist 2520° (Vertical Position)	**4.15**
8	**2R8**	Twist 2880° (Vertical Position)	**3.95**
	RU8	Unbalanced Twist 2880° (Vertical Position)	**4.75**
9	**2R9**	Twist 3240° (Vertical Position)	**4.45**
	RU9	Unbalanced Twist 3240° (Vertical Position)	**5.35**
10	**2R10**	Twist 3600° (Vertical Position)	**4.95**
	RU10	Unbalanced Twist 3600° (Vertical Position)	**5.95**

Airborne Weight (A)

This family includes movements that require an amount of the body out of the water (single or double legs) and reflect the difficulty of maintaining balanced and unbalanced airborne weight.

a) When "sustained height" is stated, it means airborne weight lasting equal or more than 3 seconds. The duration of execution should be sufficient to clearly identify the difficulty by the Difficulty Technical Controllers.

b) Please take note of general requirement d) as Airborne Weight may not be declared when occurring simultaneously with a rotation.

c) Please see general requirement at point 5 of Appendix 6, below, for the definition of unbalanced.

- For A10 - rocking (unbalanced forward to unbalanced back with both legs together, also side to side, or back-side-front-side. Both legs move at same time, not one and then the other making a clear balanced action in-between.
- In A10 going from a back unbalanced to front unbalanced through a balanced "V" (one leg back/one leg forward) position is a Base Mark as the "V" position makes it balanced.

- Example of balanced "V" (one leg back/one leg forward) position

d) When two A8, A9 or A10 are declared back-to-back (Ie A8 A8 or A9 A9 or A10 A10), then the two 3 seconds or more sustained holds must be separated by either coming out of the VP cone (for A8 and A9) or coming out of the cone or balancing for A10. In the case of declaring two different Airborne Weight's (ie A8 A9 or A9 A10), then coming out of the VP cone is not required.

e) The minimum height required for Airborne Weight is 3.5, meaning starting or finishing positions or sustained actions must meet this standard.

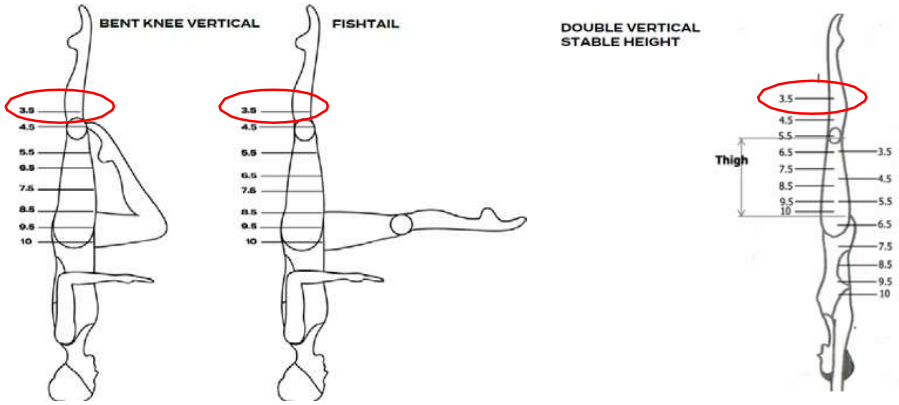
- For example, if doing AB (Lift to any single leg position from Inverted Tuck, Table Top or a variant), the single leg position must be at 3.5;

- For example, if doing an A5 (Front Pike to Vertical Position while rotating 360°), the ending Vertical Position must be at 3.5.

f) An ascent (A3b) or a descent (A2a) is defined as a change of a minimum of two height levels. A change of only one height level during an ascent or descent declaration would be subject to a Base Mark.

g) For Vertical descent with 1 or 2 legs (A1b, A2a): in addition to a change of a minimum of two height levels as per f) a vertical descent must also descend below the knees (kneecaps clearly submerged). After the kneecaps have submerged, a crash may occur. For example, a descent is executed from a high VP (high thigh), until below the knee (kneecaps submerged) and then a crash occurs, then A1b or A2a still applies as a change of two height levels was executed and a crash occurred once the knees were submerged.

h) As per general requirement f) for Vertical ascent with 1 or 2 legs (A3b): A vertical ascent must rise above the knees (kneecaps clearly visible) or not bend at the knees before reaching above the knees (kneecaps clearly visible). Once above knees, other movements/declarations can occur.



i) For movement from Front Pike to Vertical Position (Porpoise Action): There may be variations in leg movements as long as the integrity of the porpoise lift action is maintained. For example:

- Legs may be slightly apart (not more than 45 degrees).
- Legs may be crossed or one slightly bent and one straight, or both slightly bent – as long as still in the "Vertical Position Cone" area.

j) For movements with lifting from Front Pike and rotating:

- From Front Pike to a single leg position (Bent Knee Vertical Position, Fishtail, etc.) while rotating 180°.
- From Front Pike to a single leg position (Bent Knee Vertical Position, Fishtail, etc.) while rotating 360°.
- Front Pike to Vertical Position while rotating 180°.
- Front Pike to Vertical Position while rotating 360°.
- The lift to single or double leg in Vertical Position with 180°/360° rotation must be gradual and not reach the single or double leg Vertical Position until 135°/270° - meaning if lift finishes at ¾ point and then a ¼ turn in Vertical Position is executed this is acceptable, however if less than 135°/270° is accomplished – the rotation would be subject to a Base Mark.

Level	Code	Description	Degree of Difficulty Value
B	**AB**	Lift to any single leg position from Inverted Tuck, Table Top or a variant	**0.05**
1	**A1a**	Lift to any single leg position from Front Pike	**0.10**
	A1b	Single leg descent	
	A1c	Lift to Vertical Position from Inverted Tuck, Table Top or a variant	
	A1d	Join to Vertical Position from Fishtail, Bent Knee Vertical Position or Split	
2	**A2a**	Vertical descent in Vertical Position (with or without isolated movements)	**0.15**
	A2b	From Front Pike to a single leg position (Bent Knee Vertical Position, Fishtail, etc.) while rotating 180°	
3	**A3a**	Front Pike to Vertical Position (Porpoise Lift)	**0.20**
	A3b	Vertical ascent with 1 or 2 legs (with or without isolated movements)	
4	**A4a**	From Front Pike to a single leg position (Bent Knee Vertical Position, Fishtail, etc.) while rotating 360°	**0.45**
	A4b	Front Pike to Vertical Position while rotating 180°	
5	**A5**	Front Pike to Vertical Position while rotating 360°	**0.65**
6	**A6**	3 seconds of up and down movements with one leg or a combination of one or two legs	**0.80**

7	**A7**	3 seconds of up and down movements with two legs	**0.90**
8	**A8**	Sustained height with one leg or a combination of one or two legs lasting equal or more than 3 seconds Or Isolated movements performed in a stable and fixed single leg position (within Vertical Position definition of 0-45 degrees) – isolated movements performed with other (non-fixed) leg lasting 3 seconds or more Or A combination of the two techniques *(for example 2 seconds of isolated movements, then 1 second of a combination of one and two leg movements)*	**1.15**
9	**A9**	Sustained height in Vertical Position lasting equal or more than 3 seconds	**1.45**
10	**A10**	Sustained height shown at least 3 seconds or more in Vertical Position performed in an unbalanced position	**1.65**

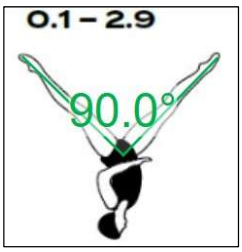
Flexibility (F)

This family includes different types of flexibility movements that require an extreme range of suppleness (bring a joint to its maximum range of motion), such as Arches, Splits, Knights, Walkouts, and Nova/Cyclone lift.

a) All positions should be shown with maximum strength in legs and a body position with shoulders under the hips that demonstrates the flexibility of the Athletes.

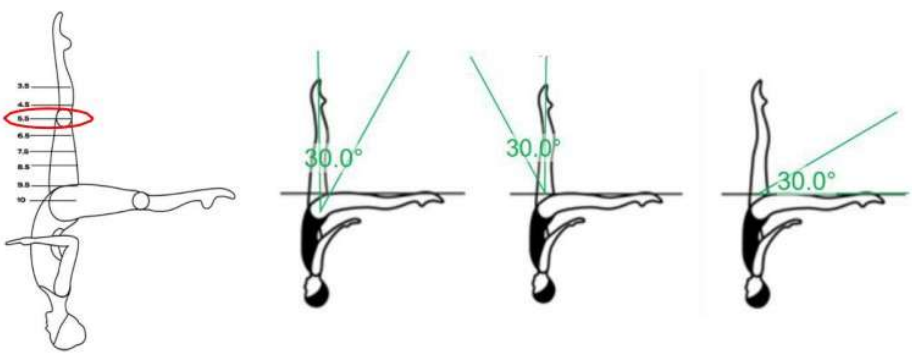
b) The duration of execution should be sufficient to clearly identify the difficulty by the Difficulty Technical Controllers.

c) Split position must demonstrate flexibility at the minimum height for split (0.1-2.9 = "scissors") as per the 'World Aquatics Artistic Swimming Manual for Judges, Technical Controllers, Referees and Coaches' or it is subject to a Base Mark.



d) For Knight position:

- Minimum height of 5.5 (kneecap visible) is required. The kneecap obviously fully underwater constitutes a Base Mark.
- The vertical leg can be a maximum of 30 degrees off the vertical line.
- The horizontal leg can't come off the surface more than 30 degrees.



e) If declaring Rapid Knight (F1b), you may declare consecutively, however the vertical leg must come out of the Vertical Position Cone.

f) In regard to Rapid Knight Position (F1b) or Rapid Split (F1a) from any position, the action from the starting position to the Knight or Split must be rapid.

g) The declaration examples regarding F1a and F1b:

- F1a (Rapid Split) followed by RCB or RCl is allowed.
- F1a (Rapid Split) followed by F2a (Walkout front), F2b (Walkout Back) or F3b (Ariana) is allowed.
- A F1a (Rapid Split) can be declared before a F3a to get into the first starting split position before declaring a F3a (the transition of changing legs twice). F1a is one movement, then F3a must be two additional splits.
- For F1a (Rapid Split) followed by F2c (Split variants at the surface- demonstration of at least 2 different splits) – F1a is one movement, then F2c must be two additional splits.
- F1b (Rapid Knight) followed by F4e, F4f, F5a, F5c, F6b, F6c or F8a is allowed.
- F1b (Rapid Knight) followed by F3c (Combo of R-L Knight) F1b is one movement, then F3c must be two additional Knights.
- F1a (Rapid Split) followed by F6d (Flat split/Split variants sustained at the surface 3 seconds or more) – if athletes reach the Split position with a rapid movement, then clearly hold for an additional 3 seconds this is allowed.
- F6d followed by RCB/RC1 – split hold followed by a close (RCB/RC1) declaration is acceptable.
- ROB/RO1 followed by F1a as per general Requirement d) – can't be a simultaneous declaration.

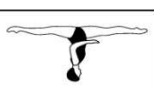
h) Knight join 180°/360° to Vertical Position (F6c or F8a): the rotation must be gradual and not reach Vertical Position (where feet/ankles must be touching) until 135°/270° - meaning if join finishes at ¾ point and then a ¼ turn in Vertical Position is executed this is acceptable, however if less than 135°/270° is accomplished – the rotation would be subjected to Base Mark.

i) For Bent Knee Surface Arch Position to Vertical Position rotating 180° or 360° (F6a or F8b°): the rotation must be gradual and not reach Vertical Position until 135°/270° - meaning if join finishes at ¾ point and then a ¼ turn in Vertical Position is executed this is acceptable, however if less than 135°/270° is accomplished – the rotation would be subjected to Base Mark.

j) For movement from Surface Arch to Vertical Position (F7, F9 and F10), there may be variations in leg movements as long as the integrity of the surface arch and lift action is maintained. For example:

- A Surface Arch position must be visible at the surface of the water (not airborne).
- Legs may be slightly apart (not more than 30 degrees). Legs that are obviously wider than 30 degrees will be subject to a Base Mark.
- Legs may be crossed or one slightly bent and one straight.
- Both legs may not be bent intentionally – slight bending (soft knees) due to bad execution should not be Base Marked.
- For F9 and F10: the rotation must be gradual and not reach Vertical Position until 135°/270° - meaning if lift finishes at ¾ point and then ¼ turn in Vertical Position is executed this is acceptable. However if less than 135°/270° is accomplished, the rotation would be subject to Base Mark.

k) Flat Split (F6d) as per Height Chart 8.5 level:

8.5	170° - 180°			Legs dry

Level	Code	Description	Degree of Difficulty Value
B	**FB**	Back Layout to Surface Arch or Bent Knee Surface Arch	**0.05**
1	**F1a**	Rapid Split from any position	**0.10**
	F1b	Rapid Knight Position from any position	
	F1c	Bent Knee Surface Arch to Knight (extending the Bent Knee up to Knight)	
2	**F2a**	Walkout Front (to breath)	**0.20**
	F2b	Split to Front Pike (180° arc with a straight leg)	
	F2c	Split variants at the surface (demonstration of at least 2 different Splits)	
3	**F3a**	Split to Split through Vertical Position (changing legs) This means from a Right/Left Split to a Left/Right Split passing through Vertical Position and then back again through Vertical Position to the initial starting Right/Left Split position. A F1a (Rapid Split) can be declared before a F3a to get into the first starting split position before declaring a F3a (the transition of changing legs as per above).	**0.30**
	F3b	Ariana Rotation	
	F3c	Combination of a Right and Left Leg Knight Position	
	F3d	Fishtail to Knight or Knight to Fishtail (bending the moving leg through the vertical line ie through Bent Knee VP).	
4	**F4a**	Bent Knee Front Layout to Bent Knee Arch Position OR Front Layout to Split with a straight leg	**0.35**
	F4b	From Surface Arch Position to Knight or Split with a straight leg through the vertical arc/axis.	
	F4c	Bent Knee Surface Arch to Bent Knee Vertical Position	
	F4d	Bent Knee Surface Arch to Knight (lifting the extended leg to Vertical Position and extending the bent leg horizontally on the surface)	
	F4e	Fishtail to Knight or **Knight to Fishtail** (horizontal plane, along the surface)	
	F4f	Fishtail to Knight (through Vertical Position)	
5	**F5a**	Knight to Vertical Position OR Knight to Fishtail through Vertical Position	**0.40**
	F5b	Bent Knee Surface Arch to Vertical Position	
	F5c	Knight rotating 180° (twisting in the Knight position)	
6	**F6a**	Cyclone 180° (Bent Knee Surface Arch Twirl 180° to a Vertical Position	**0.45**
	F6b	Knight rotating 360° (twisting in the Knight position)	
	F6c	Knight Join to Vertical Position while rotating 180°	
	F6d	Flat Split or Split variants sustained at the surface 3 seconds or more (split variants may not bend knees more than 90° or lift the thigh past 45° while transitioning from one split to another)	
7	**F7**	Surface Arch to Vertical Position (clearly stopping in VP)	**0.50**
8	**F8a**	Knight Join to Vertical Position while rotating 360°	**0.65**
	F8b	Bent Knee Surface Arch Position to Vertical Position rotating 360° (Nova rotating 360°)	
9	**F9**	Surface Arch Position to Vertical Position rotating 180°	**0.75**
10	**F10**	Surface Arch Position to Vertical Position rotating 360°	**1.00**

Connections (C)

This family includes movements when Athletes join or link together with their legs creating a connected action.

a) The Athletes must be touching with 1-2 legs in the manner detailed in the table. An exception will be wrapping a leg around the body (CB and C1 levels).

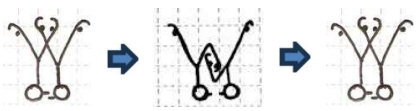
Connected Actions in Teams (Connections of 4-10 Athletes):

b) This means groupings of 4-10 Athletes are connected - for example 2 lines of 4-5 Athletes, 1 line of 8-10 Athletes, a circle of 8-10 Athletes or circles of 4-5 Athletes

- For these Connected Actions of 4-10 Athletes 0.10 will be added to the declared connection.
- Connected Actions for groupings of 4-10 Athletes will have a plus symbol (+) added to the codes.
- Connections with or without the plus symbol (+) are considered the same technique. For example, C4 and C4+ are considered the same technique and therefore combined (C4 and C4+) can only be declared a maximum of 3 times per Hybrid – for example: C4 + C4 + C4 C3 C3 would be a maximum declaration for one hybrid.

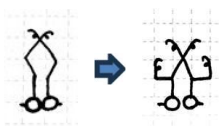
c) When two of the SAME Connections are performed consecutively (one after the other), then they must be separated by a disconnection OR the connected legs coming out of the Vertical Position "cone" area.

- For example, if declaring C2a C2a, then the Athletes must connect, disconnect/or come out of Vertical Position "cone", then connect again:



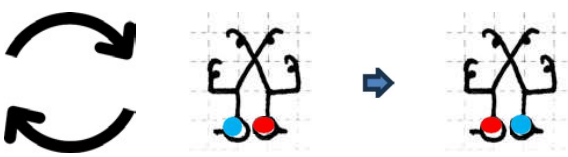
d) When two DIFFERENT Connections are performed consecutively (one after the other) then they may be performed one after the other without a disconnection or coming out of the Vertical Position "cone" area.

- For example, if declaring C4 C3, then the Athletes may demonstrate a C4 Connection, immediately followed by a C3 Connection:



e) For Connections with a rotation of at least 180o or 360o at sustained height:

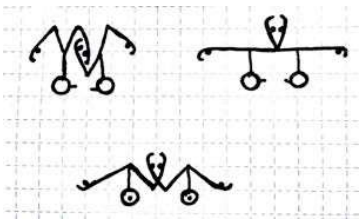
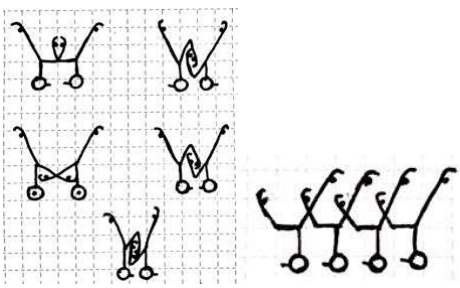
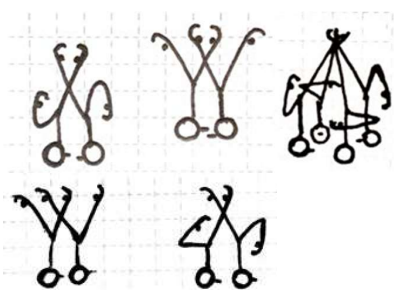
- Rotations in the Connections family must have the Athletes rotate around (change of position), be a "rotation of the construction" and NOT just a pivot of the hips (like a RD1).

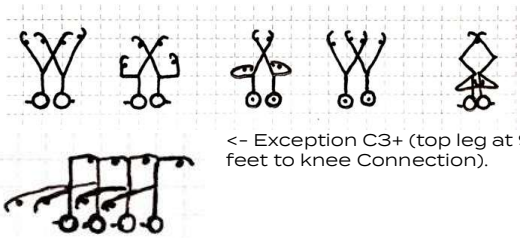
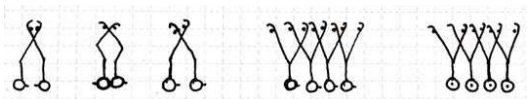


- Connected rotations must be completed at a sustained height – the rotation may not begin while ascending or end while descending. A drop of two height levels during the rotation would be subject to Base Mark.
- For example, a duet may rise Connected in a two leg connection and claim an A3b, THEN once the ascent is complete, they can then turn 180o for the C6a.

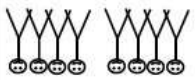
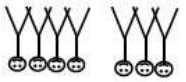
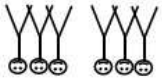
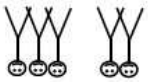
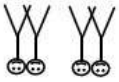
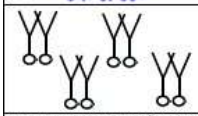
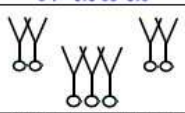
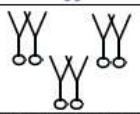
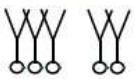
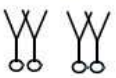
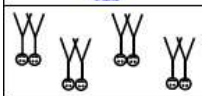
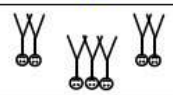
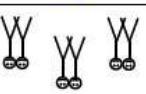
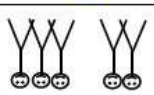
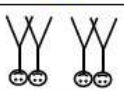
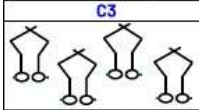
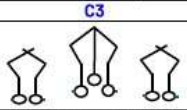
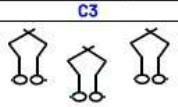
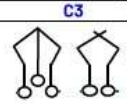
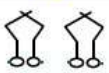
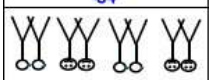
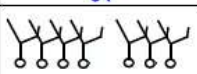
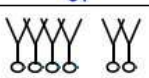
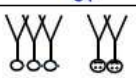
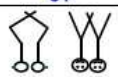
f) An ascent (A3b or A3a) can't be declared simultaneously with a Connection. The lift or ascent must be completed first (rise above the knee) and then the Connection must occur as a separate movement.

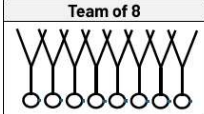
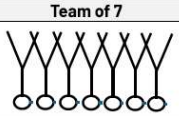
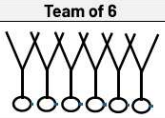
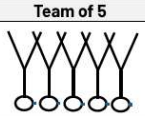
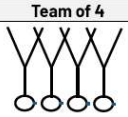
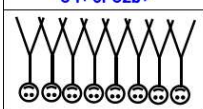
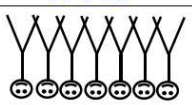
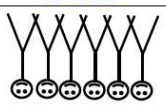
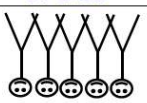
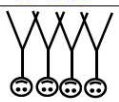
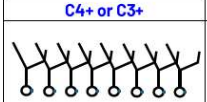
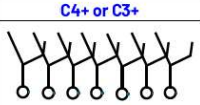
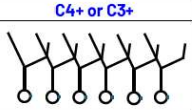
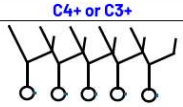
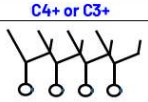
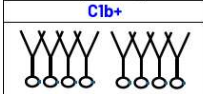
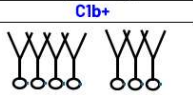
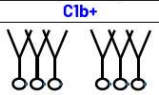
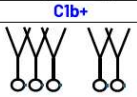
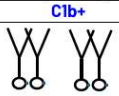
Please see the following table for example images of descriptions of Connections:

Level	Description	Code	Degree of Difficulty Value
B	Piked body position at the surface of the water or any position out of Vertical Position "cone" area (facing any direction). Connections are on the surface of the water without lifting the feet from the water OR any position out of Vertical Position "cone" area (facing any direction) OR wrapping a leg around the body (pelvis). 	**CB** **2-3 Connected**	**0.10**
		CB+ **4-5, 8-10 Connected**	**0.20**
1	C1a: Connection in any one leg Vertical Position (in "cone" area) with the "bottom" leg (non-Vertical Position leg) connected. Can be facing any direction. C1b: Connecting a bottom leg (non Vertical Position leg) with the Vertical leg of the athlete in front of them (Athletes facing same direction) OR wrapping a leg around the body (pelvis) – can be facing any direction. 	**C1a** **C1b** **2-3 Connected**	**0.20**
		C1a+ **C1b+** **4-5, 8-10 Connected**	**0.30**
2	C2a: One leg (in Vertical Position "cone" area) face-to-face Connection. C2b: One leg back (in Vertical Position "cone") one leg forward (in Vertical Position "cone") Connection. In C2a or C2b Athletes connect in any one or two leg Vertical Position and make a clear Connection with one vertical ("top") leg. C2c: C1 Connections with a rotation of at least 180° at sustained height. 	**C2a** **C2b** **C2c** **2-3 Connected**	**0.30**
		C2a+ **C2b+** **C2c+** **4-5, 8-10 Connected**	**0.40**
3	One leg (in Vertical Position "cone" area) <u>back</u> or <u>side</u> Connection. Athletes are Connected in any one or two leg Vertical Position with one leg back or to the side of each other and make a clear connection with one vertical ("top") leg.	**C3** **2-3 Connected**	**0.40**
		C3+	**0.50**

Level	Description	Code	Degree of Difficulty Value
	 <- Exception C3+ (top leg at 90 degrees feet to knee Connection).	**4-5, 8-10 Connected**	
4	Two-leg Connection (both legs must be in Vertical Position "cone" area). May be facing any direction. Athletes are Connected with two legs facing ANY direction in any two-leg Vertical Position (variants of 2 legs close to vertical – legs can be up to 45° off from vertical). 	**C4** **2-3 Connected**	**0.50**
		C4+ **4-5, 8-10 Connected**	**0.60**
5	Rotation vertical Connection with one leg in Vertical Position "cone" area (Rotation of 180°+ at maximum height). May be facing any direction. When Athletes are Connected with ONE LEG, which could be executed in a one or two leg vertical position. Facing any direction, Athletes make a clear Connection with one vertical (top) leg while performing a rotation of at least 180° at sustained height.	**C5** **2-3 Connected**	**1.00**
		C5+ **4-5, 8-10 Connected**	**1.10**
6	C6a: Rotation vertical connection with two legs in Vertical Position "cone" area (rotation of 180°+ at maximum height). May be facing any direction. When Athletes are Connected with TWO LEGS facing ANY direction in any two-leg Vertical Position (variants of 2 legs close to vertical – legs can be up to 45° off from vertical), while performing a rotation of at least 180° at sustained height. C6b: Rotation vertical Connection with one leg (rotation of 360°+ at maximum height. May be facing any direction. C5 definition with rotation of 360° or more at sustained height.	**C6a** **C6b** **2-3 Connected**	**1.25**
		C6a+ **C6b+** **4-5, 8-10 Connected**	**1.35**
7	360° Rotation vertical Connection with two legs in Vertical Position "cone" area (rotation of 360°+ at maximum height). May be facing any direction. C6a definition with rotation of 360° or more at sustained height.	**C7** **2-3 connected**	**1.50**
		C7+ **4-5, 8-10 connected**	**1.60**

Team connection examples:

Team of 8	Team of 7	Team of 6	Team of 5	Team of 4
				
2 groups of 4 athletes facing forwards (sideways)	*1x4 and 1x3 athletes facing forwards (sideways)*	*2 groups of 3 athletes facing forwards (sideways)*	*1x3 and 1x2 athletes facing forwards (sideways)*	*2 groups of 2 athletes facing forwards (sideways)*
C4+ or C3+	**C4+*0.5 C3*0.3**	**C3**	**C3**	**C3**
				
4 groups of 2 athletes (one leg forward/one leg back)	*3 groups of 2-3 athletes (one leg forward/one leg back)*	*3 groups of 2 athletes (one leg forward/one leg back)*	*2 groups of 2-3 athletes (one leg forward/one leg back)*	*4 groups of 2 athletes (one leg forward/one leg back)*
C2b	**C2b**	**C2b**	**C2b**	**C2b**
				
4 groups of 2 athletes facing forwards (sideways)	*3 groups of 2-3 athletes facing forwards (sideways)*	*3 groups of 2 athletes facing forwards (sideways)*	*1x3 and 1x2 athletes facing forwards (sideways)*	*2 groups of 2 athletes facing forwards (sideways)*
C3	**C3**	**C3**	**C3**	**C3**
				
4 groups of 2 athletes with 2-leg connection	*3 groups of 2-3 athletes with 2-leg connection*	*3 groups of 2 athletes with 2-leg connection*	*1x3 and 1x2 athletes with 2-leg connection*	*2 groups of 2 athletes with 2-leg connection*
C4	**C4**	**C4**	**C4**	**C4**
				
2 groups C2b, 2 groups C3	*C1b – group of 4 + group of 3*	*C2b – group of 4 + group of 2*	*3 doing C2b, 2 doing C3*	*1 pair doing C4, 1 pair doing C3*
C2b*0.5 C3*0.5	**C1b+*0.5 C1b*0.3 or C1b**	**C4+*0.5 C2b*0.3**	**C2b*0.5 C3*0.3**	**C4*0.5 C3*0.5**

Team of 8	Team of 7	Team of 6	Team of 5	Team of 4
				
All 8 athletes facing forwards (one behind the other)	*All 7 athletes facing forwards (one behind the other)*	*All 6 athletes facing forwards (one behind the other)*	*All 5 athletes facing forwards (one behind the other)*	*All 4 athletes facing forwards (one behind the other)*
C4+ or C2b+	**C4+ or C2b+**	**C4+ or C2b+**	**C4+ or C2b+**	**C4+ or C2b+**
				
All 8 athletes facing forwards (sideways)	*All 7 athletes facing forwards (sideways)*	*All 6 athletes facing forwards (sideways)*	*All 5 athletes facing forwards (sideways)*	*All 4 athletes facing forwards (sideways)*
C4+ or C3+	**C4+ or C3+**	**C4+ or C3+**	**C4+ or C3+**	**C4+ or C3+**
				
All 8 athletes facing forwards connecting bottom leg with a thigh of VP leg	*All 7 athletes facing forwards connecting bottom leg with a thigh of VP leg*	*All 6 athletes facing forwards connecting bottom leg with a thigh of VP leg*	*All 5 athletes facing forwards connecting bottom leg with a thigh of VP leg*	*All 4 athletes facing forwards connecting bottom leg with a thigh of VP leg*
C1b+	**C1b+**	**C1b+**	**C1b+**	**C1b+**
				
2 groups of 4 athletes facing forwards (one behind the other)	*1x4 and 1x3 athletes facing forwards (one behind the other)*	*2 groups of 3 athletes facing forwards (one behind the other)*	*1x3 and 1x2 athletes facing forwards (one behind the other)*	*2 groups of 2 athletes facing forwards (one behind the other)*
C4+ or C2b+	**C4+*0.5 C2b*0.3**	**C2b**	**C2b**	**C2b**

14. Bonuses

Pattern Changes (PC)

- This bonus is applied for Teams only for changes of formations made by the spatial relationship between members of a team.
- Open Team Technical, Open Team Free and Open Free Combination routines will include a bonus for each Pattern Change executed valued at 0.20 each, up to a MAXIMUM of 6 Pattern Changes declared per Hybrid. If more pattern changes are executed, they can't be declared nor will receive any additional credit.
- Each pattern change in a Hybrid is counted. For example, if a hybrid has 3 pattern changes the code would be 3PC in the bonus section of the Coach Card.

Important Notes regarding Technical Controller verification of pattern changes:

a) Traveling of all Athletes in the same direction while maintaining the pattern is not a pattern change.

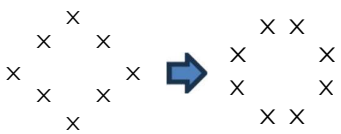
b) When pattern changes are 'transitional' – passing through from one to another – the pattern change must pause and *clearly demonstrate the new pattern* before continuing.

c) If a team declares a pattern change, the Difficulty Technical Controllers do need to see that the change was clearly attempted. They do not judge execution of the pattern change or new pattern, but they do need to clearly see that that a new pattern was created.

d) If there is a lack of clarity in the pattern changes declared, meaning change to a new pattern is *not recognisable,* this will result in a Base Mark.

Further notes:

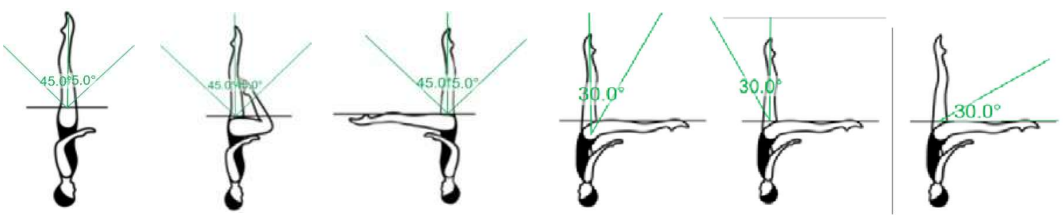
e) If from the Rhombus/Diamond ❖ a change to a circle ! is executed – this is acceptable – the Difficulty Technical Controllers should not see the points for the Rhombus/Diamond.



f) If a rotation on themselves in Rhombus/Diamond ❖ (remaining in a Rhombus/Diamond) then it is not a pattern change.

15. General Requirements

a) When Vertical Position is indicated it includes variants of 2 legs at or close to vertical (legs can be up to 45° off from vertical). One leg Vertical Positions such as Bent Knee, Crane, or Fishtail can also be up to 45° off vertical line. Knight position is as per Flexibility family (max 30° off top or bottom leg).



b) Each Free Routine (Senior, Junior, Youth, 12U) MUST include a skill from every family (except for **Connections** in Solo). All routine members must perform that skill in the same declaration on the Coach Card (not factored). The only exception shall be in Open Free Combination (Youth and 12U) where one declaration from each family in the routine may be counted across solo, duet and team DD hybrids.

- Example: The skill is a Thrust Level 3a (Thrust and vertical descent). A T3a is declared on the Coach Card. It could be done all 8 together (fully synchronised), or as a cadence action; for example, 4 and then 4, or 3/3/2 or 2/2/2/2, or one at a time.

c) There is a maximum of 5 declarations per family per Hybrid, with a limit of **2x per technique**. Factoring in hybrids will be limited to 10 code declarations, 5 at 0.5 and 5 at 0.3. For example, you may do 5x "R" family declarations but a maximum of 2-specific techniques (i.e., 2R1 x 2 and R01 x 2).

d) When two movements from different families in the difficulty table *occur simultaneously* then you may only declare one. Examples:

- If a Vertical Position open to Split 360° (R01) is being executed, then you may not also declare F1a (Rapid Split from any position).
- If a SB (Spin 180°) is declared performed as a spin ascending, then an A3b (vertical ascent) can't be declared simultaneously
- If a RU5 (Unbalanced Twist 180°) is declared and it takes 3 seconds or more then an A10 can't be declared simultaneously.

e) In teams or duet: when a Code (technique) is not performed by all team or duet members its value will be factored by *0.5 (half of Athletes included), or by *0.3 (fewer than half of Athletes included). This requirement also applies in duet actions where just one Athlete is performing a Hybrid Movement while the other performs surface accompaniment (whether connected or not).

When a code (for example when 2x maximum per technique is being used) has a factor applied of 0.5 (half Athletes) or 0.3 (fewer than half of Athletes) a coach may declare that movement a maximum of 4x in one hybrid when factored.

Factoring *does not apply* to the pattern change bonus.

Factoring can only be used when different codes/techniques are being executed by the Athletes. If all Athletes are doing the same choreography (same Code/technique) factoring can't be used.

With regards to factoring and the Open Free Combination routine (Youth/12U):

- According to Appendix 5, Required Element #1 must include at least two parts with fewer than 3 competitors and at least two parts featuring all competitors. To clarify, this does not mean that Team Hybrids must consist of all competitors; it can also apply to transitions or acrobatic sections in which all athletes participate at least twice.
- Regarding team Hybrids: since an Open Free Combination has 4 to 10 athletes, the minimum required for a team Hybrid is 4 athletes (as stated in Appendix 3).
- For Team Hybrids in Open Free Combinations, the minimum requirement is 4 Athletes. However, if a team performs a Hybrid with fewer Athletes than the total number in the Open Free Combination routine, the appropriate factors from the Hybrid Difficulty Catalogue must be applied.
- The following are examples of team Hybrids in Free Combination comprised of 6 athletes in total:
  - Example 1: The team performs a Hybrid with only 4 athletes. Whatever is declared for that Hybrid will be multiplied by a factor of ***0.5**
  - Example 2: The team performs the Hybrid with all 6 Athletes and therefore no factoring is applied because the entire team participates.
  - Example 3: The team starts the Hybrid with all 6 Athletes, but 2 Athletes end the Hybrid with rotation level 3 (R3). That R3 would be factored by *0.3 (R3*0.3).

f) When a Cadence is performed you just declare the full code once on the Coach Card. Difficulty Guide General Requirement e) does not apply (factoring). Meaning – when the whole team does the same "Cadence" movement sequentially/consecutively (one after the other – 1 at a time, 2 at time, 4/4/2, 4/4, etc.), you just put the difficulty Code once.

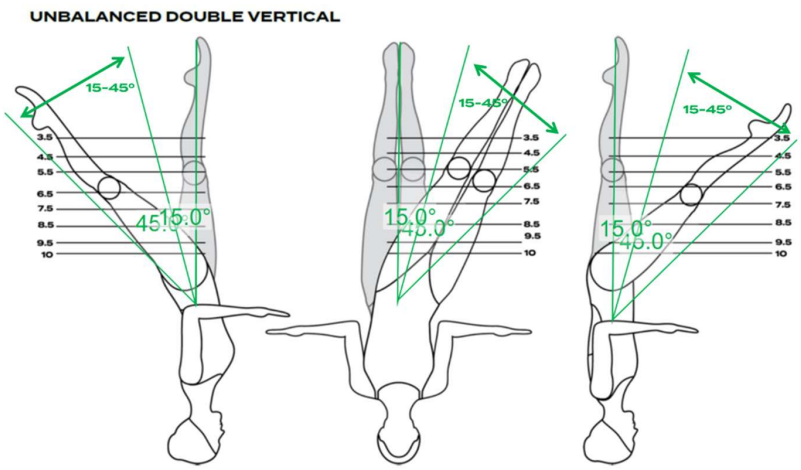
- For example, if all 8 Athletes on a team do a S1 (spin descending/ascending 360°) one at a time – just declare S1 once on the Coach Card.

g) When Unbalanced is stated, it means both legs from thighs to feet, in the same direction: forwards, backwards, or sideways (Body position Arched, Piked, or Tilted) clearly OFF the vertical line, and clearly ABOVE (off) the surface of the water.

If one leg bends while the other leg is unbalanced and the Athlete's centre of gravity out of the vertical line is compensated by the knee bending that keeps the athlete in a stable position – this does not qualify as unbalanced.

If technology is available at a competition where Athletes can be measured for compliance 15-45 degrees off Vertical Position is the required angle to be achieved 0-15 degrees is *too straight* and therefore not unbalanced, and *lower than 45 degrees* is out of the Vertical Position definition.

For Difficulty Technical Controllers without technology – if an Athlete is completely straight during a declared unbalanced action that is subject to a Base Mark. If an Athlete is clearly lower than 45 degrees and near the surface of the water that is subject to a Base Mark.



16. The Coach Card

The Coach Card is where the declared difficulty for a routine is detailed – Technical Required Elements, Hybrids and Acrobatics. Transition parts will also be declared on the Coach Card to assist with following the order of performance.

For acrobatics difficulty, please refer to the Team Acrobatics Catalogue and Pair Acrobatics Catalogue. This acrobatics information is needed to complete a routine's declared difficulty on the Coach Card for Duet and Team routines.

Online Coach Cards are also provided by the scoring systems that support World Aquatics competitions. Specific instructions for online Coach Cards are provided in competition information packages so please ensure these packages are read thoroughly with instructions followed.

Below is an example of a coach card template should technology not be available.

WORLD AQUATICS

COACH CARD
In force as from 1 October 2024

Please fill in with type or write in capital letters!

Member Federation:				
Competition:				
Event:	❑ **PRELIMS**	❑ **FINALS**		
	❑ Women Solo Tech	❑ Men Solo Tech	❑ Women Duet Tech	❑ Mixed Duet Tech
	❑ Women Solo Free	❑ Men Solo Free	❑ Women Duet Free	❑ Mixed Duet Free
	❑ Mixed Team Tech	❑ Mixed Team Free	❑ Acrobatic	❑ Combo
Theme:				
Name of competitor(s):				

ELEMENTS IN ORDER OF PERFORMANCE

TIME	PART	EL	BASE MARK	DECLARED DIFFICULTY	BONUS	DD	TC

Member Federation: _____

Date: _____ Signature: _____

17. Important notes regarding Declared Difficulty Movements / Coach Card

It is very important that Athletes perform skills (codes/techniques) as declared on the Coach Card AND in the order in which they are declared – otherwise a deduction will occur. We strongly advise "Do what you declare!"

If the Coach has declared a movement on the Coach Card and an Athlete does not perform it at all (it is omitted), or does not perform it in conformance to what is declared on the Coach Card (Code/technique is different or in wrong order than declared) then the following will occur:

For a Free Hybrid:

- Only the Base Mark (value of 0.5) will be applied
  - For example, a routine hybrid is declared to have:
    - Thrust Level 3 (T3a), Airborne Weight Level 3 (A3b), and a Spin Level 4 (S4).
    - However, an Athlete does not perform their Spin Level 4 (for example a spin descending 1440°) and instead does a S3 (spin descending 1080°).
    - The routine will have this hybrid put to Base Mark (value of 0.5).
- Please note in duet or team if ONE Athlete does not perform movement as declared the deduction will apply.
- The hybrid declaration must be in the exact order that it appears in the hybrid chronologically – as above – First a T3, then A3, then S4 occurs. IF this is incorrectly ordered on Coach Card vs what is done in the water, the deduction will apply.

For a Technical Required Element:

- In technical routines, a Technical Required Element (TRE) will be declared as TRE1a or TRE1b, TRE2a or TRE2b, TRE3a or TRE3b, TRE4a or TRE4b, and TRE5a or TRE5b (note: in disciplines where there is only one option for an element no letter is included when declared on the Coach Card – for example "TRE3").
- Required Elements can be performed in any order; however, Athletes must perform the Technical Required Elements in the order as declared on the Coach Card or a penalty (a zero) will be applied in accordance with Article 6 of this Part Seven.
- Please also note that additional movements can be added immediately before and after (breath to breath) a Technical Required Element. Those movements will not add any extra difficulty nor will be considered as additional hybrids and therefore are not to be added to the Coach Card.

For an Acrobatic movement (Teams and Duets):

- Acrobatic codes should be added to the Coach Card as per the Acrobatic Catalogues.
- A Base Mark will be applied to acrobatics not performed in conformance to what is declared on the Coach Card.
- Please refer to the Acrobatic Catalogue for Acrobatic Base Marks.

18. Coach Card Legend

Acrobatics Base Mark:

Group A	ACRO-A	For Acrobatics, please enter the acrobatic code in the "declared difficulty" column as per the Acrobatics Catalogue. ***Please refer to the Acrobatics Catalogue for Acrobatic codes and Acro Base Marks.*
Group B	ACRO-B	
Group C	ACRO-C	
Group P	ACRO-P	
Pair Acro	Acro-Pair	

Hybrid Base Mark:

Hybrid Base Mark is fixed at 0.5 and is added to the value of the hybrid Degree of Difficulty, and it is the value (0.5) the hybrid will go to if not successful in achieving the declared difficulty.

Hybrid Families and Bonuses:

Families (groups)/Bonuses:		**Family and Level Codes:**
Thrusts	T	TB, T1-T10
Spins:		
Spins – ascending/descending	S	SB, S1-S10
Spins – combined	SC	SCB, SC1-SC6
Spins – combined two-direction	SCD	SCDB, SCD1-SCD6
Twists (Incl. Twirls and Swirls)		RB, R1-R9
Swirl	R	RB, R1-R4
One leg Twists	1R	1RB, 1R1-1R6
Two leg Twists	2R	2RB, 2R1-2R10
Two-direction Twist	RD	RD1-RD6
Unbalanced Twist	RU	RU1-RU10
Vertical Position to Split	RO	ROB, RO1
Split to Vertical Position	RC	RCB, RC1
Flexibility	F	FB, F1-F10
Airborne Weight	A	AB, A1-A10
Connections		
Connections (2-3 athletes)	C	CB, C1-C7
Connections (4-5, 8-10 athletes)	C+	CB+, C1+-C7+
Pattern Changes	PC	1PC, 2PC, ...6PC
In Thrusts, Airborne Weight, Flexibility and Connections where are few skills are grouped together in one level, each technique has been labelled as a, b, c, d, e or f to ensure clarity or what is being declared.		

Technical Required Elements:

Note: in disciplines where there is only one option for an element, no letter is included – for example "TRE3".

Element 1	**Element 2**	**Element 3**	**Element 4**	**Element 5**
TRE1a	TRE2a	TRE3a	TRE4a	TRE5a
TRE1b	TRE2b	TRE3b	TRE4b	TRE5b

19. Hybrid Difficulty Table - important notes:

a) All hybrids will start with a base value or "Base Mark" of 0.50 and then start adding difficulty from that base value.

b) Each Free Routine (Senior, Junior, Youth, 12U) must include a skill from every family (except for Connections in Solo). All routine members must perform that skill in the same declaration on the Coach Card (not factored). The only exception will be in Free Combination (Youth and 12U) where one declaration from each family in the routine may be counted across solo, duet and team DD Hybrids.

- Example: The skill is a Thrust Level 3a (Thrust and vertical descent). A T3a is declared on the coach card. It could be done all 8 together (fully synchronised), or as a Cadence action; for example, 4 and then 4, or 3/3/2 or 2/2/2/2, or one at a time.

c) There is a maximum of 5 declarations per family per Hybrid, with a limit of **2x** per technique. Factoring in hybrids will be limited to 10 code declarations, 5 at 0.5 and 5 at 0.3.

d) In Spins (S) or Twists (R), you may do 5x "S" family and 5 x "R" family declarations per Hybrid but a maximum of 2 specific techniques. Each Spin (S) or Twist (R) code on the table represents a specific technique.

- For example, for Twists you could declare: 2R1 x 2, RO1 x 2 and RU1 x 1 .

e) In other families (thrusts, airborne weight, flexibility and connections) where a few skills are grouped together in a level, each technique has now been labelled as a, b, c, d, e, or f to ensure clarity of what is being declared (for example in Flexibility Level 1 you will now see: F1a, F1b and F1c).

- For example, for Flexibility you could declare in one hybrid: 1 x F7, 2 x F5a, 1 x F1a and 1 x F3b.

f) Thrust family: Whenever "Thrust" is stated it means two legs, otherwise one leg is stated.

g) Spin family:

- Spins for ascending and descending are not differentiated, for example an S1 (spin 360 with one or two legs) may be ascending or descending.

- When "Combined" is stated, it means a Combined (descending then ascending) or Reverse Combined (ascending then descending) Spin.

h) Open Team Technical, Open Team Free and Open Free Combination routines will include a bonus for each Pattern Change executed valued at 0.20 each, up to a maximum of 6 pattern changes declared per hybrid. If more pattern changes are executed, they can't be declared nor will receive any additional credit.

L	THRUSTS (T)	SPINS (S)		TWISTS including Twirls/Swirls (R)		AIRBORNE WEIGHT (A)	FLEXIBILITY (F)	CONNECTIONS (C)	
BASIC	Thrust with one or two legs followed by crashing on the surface	**SB = 0.15** **SCB = 0.40** **SCDB = 0.45**	Spin 180° (one or two legs) Combined 180° (one or two legs) Two-direction Combined 180° (one or two legs)	**RB = 0.10** **1RB = 0.15** **2RB = 0.20** **ROB = 0.25** **RCB = 0.25**	Swirl 180°/ Turn 180° non-sustained or up-down 1 leg Twist/ Twirl 180° Twist/Twirl 180° (VP) VP open 180° to Split Split close 180° to VP	Lift to any single leg position from Inverted Tuck, Table Top or a variant	Back Layout to Surface Arch or Bent Knee Surface Arch	Piked body position at the surface of the water or any position out of VP "cone" area (facing any direction)	
	TB = 0.30					**AB = 0.10**	**FB = 0.05**	**CB = 0.10**	**CB+ = 0.20**
1	Thrust with one leg followed by vertical descent	**S1 = 0.40** **SC1 = 0.95** **SCD1 = 1.00**	Spin 360° (one or two legs) Combined 360° (one or two legs) Two-direction Combined 360° (one or two legs)	**R1 = 0.20** **1R1 = 0.35** **2R1 = 0.45** **RD1 = 0.50** **RU1 = 0.55** **RO1 = 0.55** **RC1 = 0.55**	Swirl 360°/ Rotation 360° non-sustained or up-down 1 leg Twist/ Twirl 360° Twist/Twirl 360° (VP) Two-direction 360° (VP) Unbalanced Twist/Twirl 360° (VP) VP open 360° to Split Split close 360° to VP	**a.** Lift to any single leg position from Front Pike **b.** Single leg descent **c.** Lift to VP from Inverted Tuck, Table Top or a variant **d.** Join to VP from Fishtail, Bent Knee VP or Split	**a.** Rapid Split from any position **b.** Rapid Knight from any position **c.** BK Surface Arch to Knight (extending the BK up to Knight)	a. Connection in any one leg VP position (in "cone" area) with the "bottom" leg (non-VP leg) connected. Can be facing any direction. b. Connecting a bottom leg with a thigh of VP leg (athletes facing same direction) OR wrapping a leg around the body (pelvis) – can be facing any direction.	
	T1 = 0.45					**A1 = 0.10**	**F1 = 0.10**	**C1 = 0.20**	**C1+ = 0.30**
2	a. Thrust with one leg followed by Spin 180° b. Thrust with one leg followed by Twirl 180° and a crash	**S2 = 0.90** **SC2 = 1.95** **SCD2 = 2.00**	Spin 720° (one or two legs) Combined 720° (one or two legs) Two-direction Combined 720° (one or two legs)	**R2 = 0.40** **1R2 = 0.75** **2R2 = 0.95** **RD2 = 1.05** **RU2 = 1.15**	Swirl 720° 1 leg Twist 720° Twist 720° (VP) Two-direction 720° (VP) Unbalanced Twist 720° (VP)	a. Vertical descent in VP (with or without isolated move-ments) b. From Front Pike to a single leg position (Bent Knee VP, Fishtail, etc.) while rotating 180°	**a.** Walkout Front (to breath) **b.** Split to Front Pike (180° arc with straight leg) **c.** Split variants at the surface (demon-stration of at least 2 different Splits)	a. One leg (in VP "cone" area) face-to-face connection b. One leg back (in VP "cone"), one leg forward (in VP cone) connection c. C1 connections with a rotation of at least 180° at maximum height	
	T2 = 0.50					**A2 = 0.15**	**F2 = 0.20**	**C2 = 0.30**	**C2+ = 0.40**
3	a. Thrust and vertical descent b. Thrust with one leg followed by Spin 360° c. Thrust with one leg followed by Twirl 180° and descent d. Thrust with flexibility followed by crashing	**S3 = 1.40** **SC3 = 2.95** **SCD3 = 3.00**	Spin 1080° (two legs) Combined 1080° (two legs) Two-direction Combined 1080° (two legs)	**R3 = 0.60** **1R3 = 1.15** **2R3 = 1.45** **RU3 = 1.75**	Swirl 1080° 1 leg Twist 1080° Twist 1080° (VP) Unbalanced Twist 1080° (VP)	a. Front Pike to VP (Porpoise lift) b. Vertical ascent with 1 or 2 legs (with or without isolated movemen ts)	a. Split to Split through VP (changing legs) b. Ariana Rotation c. Combination of a Right and Left Leg Knight Position d. Fishtail to Knight or Knight to Fishtail (bending the moving leg through the vertical line ie through Bent Knee VP	One leg (in VP "cone" area) back or side connection	
	T3 = 0.65					**A3 = 0.20**	**F3 = 0.30**	**C3 = 0.40**	**C3+ = 0.50**
4	a. Thrust with one leg followed by Spin 720° b. Thrust with	**S4 = 1.90** **SC4 = 3.95** **SCD4 = 4.00**	Spin 1440° (two legs) Combined 1440° (two legs) Two-direction	**R4 = 0.80** **1R4 = 1.55** **2R4 = 1.95**	Swirl 1440° 1 leg Twist 1440° Twist 1440° (VP)	a. From Front Pike to a single leg position (Bent Knee VP, Fishtail, etc.) while	a. Bent Knee Front Layout to Bent Knee Arch Position OR Front Layout to Split with a straight leg	Two-leg connection (both legs must be in VP "cone" area). May be facing any direction.	

	flexibility and descent c. Thrust followed by Spin 180° d. Flying Fish (with descent) e. Thrust followed by Twirl 180° (in VP) and a crash		Combined 1440° (two legs)	**RD4 = 2.15** **RU4 = 2.35**	Two-direction 1440° (VP) Unbalanced Twist 1440° (VP)	rotating 360° b. Front Pike to VP while rotating 180°	b. From Surface Arch Position to Knight or Split with a straight leg through the vertical arc/axis c. Bent Knee Surface Arch to Bent Knee VP d. BK Surface Arch to Knight (lifting the extended leg and extending on the surface the bent leg) e. Fishtail to Knight or Knight to Fishtail (horizontal plane, along the surface) f. Fishtail to Knight (through VP)		
	T4 = 0.85					**A4 = 0.45**	**F4 = 0.35**	**C4 = 0.50**	**C4+ = 0.60**
5	a. Thrust followed by Spin 360° b. Thrust followed by Twirl 180° (in VP) and descent c. Thrust with flexibility followed by Spin 180° d. Flying Fish Spin 180° or Thrust Fishtail Helicopter Spinning 180° e. One leg Thrust with Twirl 180° followed by Spin 360°	**S5 = 2.40** **SC5 = 4.95** **SCD5 = 5.00**	Spin 1800° (two legs) Combined 1800° (two legs) Two-direction Combined 1800° (two legs)	**1R5 = 1.95** **2R5 = 2.45** **RU5 = 2.95**	1 leg Twist 1800° Twist 1800° (VP) Unbalanced Twist 1800° (VP)	Front Pike to VP while rotating 360°	a. Knight to VP OR Knight to Fishtail through VP b. Bent Knee Surface Arch to VP c. Knight rotating 180° (twisting in the Knight position)	Rotation vertical connection with one leg in VP "cone" area (rotation of 180o+ at maximum height). May be facing any direction.	
	T5 = 0.90					**A5 = 0.65**	**F5 = 0.40**	**C5 = 1.00**	**C5+ = 1.10**
6	a. Thrust with flexibility followed by Spin 360° b. Thrust with Twirl 180° (in VP) followed by Spin 360° c. Flying Fish 360° or Thrust Fishtail Helicopter Spinning 360°	**S6 = 2.90** **SC6 = 5.75** **SCD6 = 5.80**	Spin 2160° (two legs) Combined 2160° (two legs) Two-direction Combined 2160° (two legs)	**1R6 = 2.35** **2R6 = 2.95** **RD6 = 3.35** **RU6 = 3.55**	1 leg Twist 2160° Twist 2160° (VP) Two-direction 2160° (VP) Unbalanced Twist 2160° (VP)	3 seconds of up and down movements with one leg or a combination of one or two legs	**a.** Cyclone 180° (BK Surface Arch Twirl 180° to a VP) **b.** Knight rotating 360° (twisting in the Knight position) **c.** Knight Join to VP while rotating 180° **d.** Flat Split/Split variants sustained at the surface 3 seconds or more	a. Rotation vertical connection with two legs in VP "cone" area (rotation of 180°+ at maximum height). May be facing any direction. b. Rotation vertical connection with one leg (rotation of 360°+ at maximum height). May be facing any direction.	
	T6 = 1.20					**A6 = 0.80**	**F6 = 0.45**	**C6 = 1.25**	**C6+ = 1.35**
7	Thrust followed by Spin 720°	**S7 = 3.40**	Spin 2520° (two legs)	**2R7 = 3.45** **RU7 = 4.15**	Twist 2520° (VP) Unbalanced Twist 2520° (VP)	3 seconds of up and down movements with two legs	Surface Arch to VP (clearly stopping in VP)	Rotation vertical connection with two legs in VP "cone" area (rotation of 360°+ at maximum	

								height). May be facing any direction.	
	T7 = 1.60					**A7 = 0.90**	**F7 = 0.50**	**C7 = 1.50**	**C7+ = 1.60**
8	Thrust with flexibility followed by Spin 720°	**S8 = 3.90**	Spin 2880° (two legs)	**2R8 = 3.95** **RU8 = 4.75**	Twist 2880° (VP) Unbalanced Twist 2880° (VP)	Sustained height with one leg or a combination of one or two legs lasting equal or more than 3 seconds Or Isolated movements performed in a stable and fixed single leg position (within VP definition of 0-45 degrees) – isolated movements performed with other (non-fixed) leg lasting 3 seconds or more Or A combination of the two techniques	a. Knight Join to VP while rotating 360° b. Bent Knee Surface Arch Position to VP rotating 360° (Nova rotating 360°)		
	T8 = 1.90					**A8 = 1.15**	**F8 = 0.65**		
9	Thrust to height of 8.5 (waist) or higher continued by catching (clearly stopping - stable height demonstrated for 1s or more) in a VP above the knees or higher	**S9 = 4.40**	Spin 3240° (two legs)	**2R9 = 4.45** **RU9 = 5.35**	Twist 3240° (VP) Unbalanced Twist 3240° (VP)	Sustained height in VP lasting equal or more than 3 seconds	Surface Arch Position to VP rotating 180°		
	T9 = 2.00					**A9 = 1.45**	**F9 = 0.75**		
10	Thrust to height of 8.5 (waist) or higher followed by Spin 1080° or more	**S10 = 4.90**	Spin 3600° (two legs)	**2R10 = 4.95** **RU10 = 5.95**	Twist 3600° (VP) Unbalanced Twist 3600° (VP)	Sustained height shown at least 3 seconds or more in VP performed in an unbalanced position	Surface Arch Position to VP rotating 360°		
	T10 = 2.30					**A10 = 1.65**	**F10 = 1.00**		