FINA SYNCHRONISED SWIMMING
2009 – 2013

FINA SYNCHRONISED SWIMMING MANUAL

FOR JUDGES, COACHES & REFEREES

Revised January 2010

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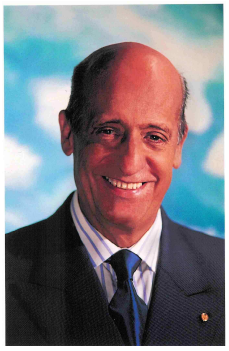
MESSAGE FROM THE FINA PRESIDENT



It is my great pleasure to introduce the ***FINA Synchronised Swimming Manual for Judges, Coaches and Referees***, a publication aimed to serve all those working on the development of this spectacular discipline worldwide.

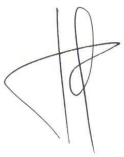
Synchronised swimming has progressed rapidly over the last years. In 2003, the launch of the Combination event in our World Championships brought another dimension to this sport; in 2005, the approval of the new programme for the FINA World Championships, "separating" the technical and free routines, led to new challenges; in 2006, the creation of a FINA Synchronised Swimming World Trophy added an additional impact on the promotion of Synchronised Swimming; in 2007, the launch of the FINA Judges School was also an important milestone in the history of this discipline; finally, in 2008 and 2009, the arrival of new countries to the podium of our main competitions, and the establishment of new rules for scoring are positive challenges for the entire of the Synchro family.

Synchronised swimming is nowadays experiencing a huge enhancement in its popularity, by attracting young athletes worldwide. The success and media impact of the competitions are also undoubtedly growing, thus increasing the interest in organising more events at a local, national or international level. The preparation of our coaches, the quality of judges and obviously the devotion of our swimmers are the key of these achievements. Providing them this manual will enhance the assimilation and transmission of technical knowledge, basic tools in such a demanding discipline.

I would like to thank the FINA Technical Synchronised Swimming Committee (TSSC) for putting together the information published in this Manual. I express my gratitude to all the members of the TSSC for their hard work and devotion.

For the Judges, Coaches and Referees, I am sure that this ***FINA Synchronised Swimming Manual*** will be essential in the prosecution of your activities. Your achievements are part of FINA's global successful image and winning strategy.

I wish you all a fruitful work.



Dr. Julio C. Maglione
FINA President

FOREWARD

The original edition of this manual was published in 1993 under the guidance of editor, Judith McGowan, Chairman of the Technical Synchronised Swimming Committee from 1984 -1992. Since 1993 it has been updated every four years following each FINA Technical Congress.

This Manual is recognized worldwide as a useful reference for judges, coaches, referees and athletes. Through it, all Synchro participants have access to the same information, guidelines and interpretation of the FINA rules. In 2007, the manual became the main document used in the FINA Judges Training Schools.

Major contributors to this and/or previous editions are Bill and Mary Black, Dawn and Ross Bean, Judy McGowan, Steffi Haeberli, Ulla Lucenius, Saeko Zushi, Sandra Roberts (former editor), Dr. Margo Mountjoy, Virginia Jasontek, Carol Tackett, Sue Edwards, Miwako Homma, Petra Loeck, Barbara McNamee, Diane van der Pol, Hortensia Graupera, Maria José Bilbao, Inger Lindholm, Christiane Brenner, Ana Maria Lobo, Marina Roshina, Marie Claude Besançon, Betty Hazle, Heather Archer and Jennifer Gray. We thank these contributors along with other FINA Judges and Coaches who have been involved in the on-going process of providing up to date information and analysis.

Production of Synchronised Swimming educational materials such as this Manual would not be possible without the financial support of FINA, the excellent work of the FINA Office Staff and the leadership of the TSSC. Special recognition and thanks to all former and current TSSC members who provided input to this and to previous editions.

On behalf of the Synchro family around the world who will use this Manual, thank you all very much! Your contributions are greatly appreciated.

Virginia Jasontek
FINA TSSC Honorary Secretary
2000 – present

Stefania Tudini
FINA TSSC Chairman
2009 – 2013

Manual editor – 2009

FINA BUREAU 2009 – 2013

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SECTION I

GENERAL INFORMATION FOR JUDGES

A. FINA SYNCHRONISED SWIMMING JUDGES LIST

1. All FINA Member Federations may submit the names of a maximum of 5 judges to be considered for inclusion on the FINA G list. All nominations must be submitted to the FINA Office in Lausanne, Switzerland by October 31st.

2. Each Federation must complete an activity report for each of its FINA List judges when requested to do so by the FINA Office. Regular activity reports ensure that each judge's record is current and complete.

3. FINA List Policies:

   a. Each Judge shall be classified as "A", "B" or "G"

   b. Each Federation may nominate a maximum of 5 Judges to the G List.

   c. The FINA Technical Synchronised Swimming Committee is the only body which may classify a judge to the "A" or "B" lists (subject to the approval of the FINA Bureau.)

   d. Each Federation may have a maximum of 5 judges on the "A" and "B" lists. When a judge is reclassified from the "G" list to the "B" list, the respective Federation may nominate another judge to the "G" list.

   e. Members of the TSSC are in addition to the maximum quota allowed per Federation, and are identified on the FINA List as "F". When such individuals are no longer members of the TSSC, two things shall be considered when determining his/her subsequent status as a FINA official:

      - FINA List rating when he/she became a member of the TSSC
      - Judging activity during his/her term on the TSSC

      If his/her Federation's quota is at the maximum level, the former TSSC member shall be in addition to the quota until a vacancy becomes available. If a former member was not on the FINA Judges list when initially named to the TSSC , status shall be determined on the basis of judging activity during his/her term on the TSSC.

4. Judges may remain on the FINA Judges List until the end of the year in which they reach the age of 65, unless the judges' Federation requests that their name be withdrawn. If a withdrawal results in a vacancy on the G list, the Federation may submit the name of a new candidate. FINA will periodically ask each Federation to indicate continued support of their affiliated judges on the List.

5. The FINA Synchronised Swimming Judges List will be published annually by FINA.

B. THE EVALUATION OF JUDGES

1. FINA List judges are expected to attend and to be evaluated at a minimum of four competitions over a period of four consecutive years. Federations with judges on the FINA List should enable them to officiate at competitions where they can be evaluated by a FINA recognised evaluator.

   The evaluation process will include:

   - Observation by one or more FINA evaluators
   - Statistical evaluation on a FINA approved computer program

2. JUDGES' EVALUATION SCALES

   Overall:

   5. Excellent
   4. Very Good
   3. Good
   2. Satisfactory
   1. Weak

   Lack of Bias:

   3. Good
   2. Satisfactory
   1. Unacceptable

3. FINA JUDGES CLASSIFICATION CRITERIA

   a. From G to B:

   - A minimum of four evaluations in a four year period, with the most recent evaluation in the previous two years.
   - One evaluation may be as a practice judge
   - Two Evaluations must be Excellent (5) or Very Good (4) Overall.
   - Two Evaluations may be Excellent (5), Very Good (4) or Good (3).
   - Evaluations for Bias (i.e. Lack of Bias) must be Good (3) or Satisfactory (2).

- At least one evaluation must be from either a competition outside the judge's own continent or from a competition where Federations from two or more continents participate.
- At least two evaluations must be from an evaluator from a different country to that of the judge.
- At least one evaluation must be from a Senior competition, and at least one evaluation from a Junior competition.

b. From B to A:

- A minimum of four evaluations in a four year period, with the most recent evaluation in the previous two years.
- One evaluation may be as a practice judge.
- Three Evaluations must be Excellent (5) or Very Good (4).
- One Evaluation may be Excellent (5), Very Good (4) or Good (3).
- Evaluations for Bias (i.e. lack of Bias) must be Good (3) or Satisfactory (2).
- If a judge receives Unacceptable (1) for Bias from a competition then the evaluation for that competition shall be deemed invalid.
- At least two evaluations must be from a Senior competition.
- At least two evaluations must be from either a competition outside the Judge's own continent or from a competition where Federations from two or more continents participate.
- At least two evaluations must be from an evaluator from a different country to that of the judge.
- At least two evaluations must be from a competition with entries from at least five Federations.
- At least one evaluation must be from a competition with competitors from a different continent to that of the judge.

4. FINA JUDGES RE-CLASSIFICATION PROCEDURES

To remain on the A or B list judges must demonstrate activity annually, which will be reported on the Activity Form required by the FINA Office. At least one of these evaluations must be in the immediately preceding two years.

Annual activities may include officiating at National Championships, judging at competitions of other Federations, presenting at or attending Judges Training Clinics, either domestically or in another country, judging at International Competitions, or acting as a FINA approved evaluator.

To maintain a classification a judge must receive at least four Good, Very Good or Excellent evaluations in a four year period. Evaluations must be

from 4 different competitions, and at least two of these must be from evaluators from a country other than that of the judge.

At least one of these must be in the immediately preceding two years.

One of the evaluations must be from a Senior competition and one from a Junior or Age Group competition.

Judges may be reclassified on the FINA Judges List from A to B, or from B to G for lack of activity.

5. PRACTICE JUDGING

Of the four evaluations required for reclassification, one may be as a Practice Judge. For World Junior Championships, World Championships, the FINA World Cup and the Olympic Qualification Tournament, Federations may submit applications for Practice Judges to the Honorary Secretary of the FINA TSSC. Applications must be submitted no later than 60 days prior to the competition. Federations are permitted to have one Practice Judge per competition, and the Host Federation is permitted to have two Practice Judges. Practice judges are not permitted at the Olympic Games.

6. EVALUATION REPORTS

The evaluation data is reviewed and compiled into individual judge's reports by the FINA evaluator.

- Each report is included in the Judge's file to become part of the basis for decisions regarding remaining on the List and/or for classification to A or B status.
- The reports serve as a basis for constructive feedback to the judge with the intention of improving international judging standards
- The evaluation files will be used to assist the TSSC in selecting judges for World Championships, Olympic Games and Olympic Qualification Tournaments.

7. Each FINA sanctioned evaluator shall, to the best of their judgment, determine how accurately a judge scores routines and figures according to the criteria set forth in the FINA Handbook. Additional factors to be considered include:

- use of the score range
- independence of opinion
- level of concentration

- evidence of bias
- promptness in arriving at and presenting scores
- ability to make decisions
- general impression

8. Federations' Organising Committees where a FINA sanctioned evaluator is present are expected to cooperate fully with the evaluator. The Host Federation is expected to use an approved computer software program to produce the judge's analysis, to accompany the results.

9. FINA sanctioned evaluators are expected to provide their report to the FINA Judges List Data Base Manager within 60 days of the competition.

10. It is recommended that the evaluator meet with the judges either during or after the competition for the purpose of constructive feedback.

C. FINA SYNCHRONISED SWIMMING EVALUATORS POLICIES AND PROCEDURES

1. The FINA Synchronised Swimming Evaluators List shall be composed of the following persons:

    - Current TSSC members who have a current or previous A Judge status
    - Persons from the previous TSSC who have a current or previous A Judge status
    - FINA A List Judges who have held this status for at least two years and are nominated by their Federation. (maximum of 2 per Federation)
    - Previous FINA A List Judges Nominated by their Federation.

    NOTE: Evaluators must attend a FINA Judges School and pass the test once every four years. Evaluators must attend Evaluator Seminars as requested.

2. Federations hosting a competition may invite, at the Federation's expense, a FINA sanctioned Evaluator. Federations are requested to notify the FINA Office of the name and date of the competition and the name of the invited Evaluator.

3. Only TSSC members are eligible for appointment by FINA as Evaluators at FINA Events and Continental/Area Championships.

4. Procedures are as follows:

    - Evaluators are expected to attend all Technical meetings and Judges Meetings during the competition.
    - Evaluators should be seated on the deck or on the judge's platform during competition.
    - Evaluators unofficially judge every session to compare their scores with those of the judges being evaluated.
    - Judges' meetings for the purpose of feedback are held at the conclusion of each session if appropriate, or following finals.
    - Evaluators should ensure they receive the postal addresses of all judges, and their e-mail addresses where possible.
    - Copies of the completed evaluations shall be sent to the Data Base Manager within 60 days of the completion of the competition.
    - Evaluators should retain the originals of the completed evaluation forms.

D. SELECTION OF JUDGES

1. Selection of judges for the Olympic Games, World Championships and other FINA competitions will include consideration of the following:

    a. FINA List rating
    b. Recent activity
    c. Regional distribution

2. For World Championships, Olympic Qualification Competition and the Olympic Games only FINA List A judges shall be selected.

3. For the World Junior Championships and the FINA World Cup, each Federation may send a maximum of 2 judges, of which at least one must be A or B. If a Federation does not have any A or B judges, they may send one G judge. Any G judge must have judged at a minimum of 2 international competitions in the previous 3 years.

4. Qualified members of the TSSC may be used as judges at any FINA competition.

5. The number of judges appointed to the Olympic Games is determined by the IOC and/or the FINA Bureau.

6. Judges for other certified competitions may include representatives from all Federations participating in the competition. Judges from Federations not participating may be permitted to judge at the discretion of the Organising Committee.

7. To be considered for judging at a FINA competition, a judge must have successfully passed the Judges Exam administered at a FINA Judges School.

8. To be considered for judging at a FINA competition a judge must have judged at a minimum of two evaluated international competitions during the previous 3 years.

E. RECOMMENDED STEPS TO BECOME A JUDGE

Each Federation is responsible for educating, training, evaluating and certifying its Synchronised Swimming judges. The information contained in this section is meant to serve as a program development guide for each member Federation of FINA to use at its discretion.

The following four level training outline is designed to be used in conjunction with the listed materials which are available from the FINA Office in Lausanne, Switzerland:

- Current FINA Handbook
- This Manual for Judges, Coaches and Referees
- 2009-2013 FINA Figures and Technical Routine Elements video

1. LEVEL 1 - BASIC

A. Training Objectives

1) Train candidates to judge at basic level competitions.
2) Increase knowledge of judging for advancement to Level II - Intermediate.

B. Training Procedures and Course Content

1) Use of marking scale
2) Figures

a. Develop an understanding of general components of figure judging (Appendix IV - Figure Descriptions, FINA Handbook)
b. Develop knowledge of Basic Positions and Basic Movements as described in Section II of this Manual.
c. Develop knowledge of current FINA Age Group Figures in FINA Handbook by use of:
   - "Analysis of FINA Figures", Section II of this Manual
   - FINA video of 2009-2013 Figures and Routine Elements.
d. Be able to identify the current Age Group figures.
e. Obtain practical experience judging at Age Group level competitions.

3) Routines
   a. Develop knowledge of the elements of routine judging per SS 17 and 'Introduction Judging Free Routines' in Section III of this Manual
   b. Be able to apply the marking scale to the performance of the swimmer(s).
   c. Obtain practical experience judging at Age Group level competitions.

C. Testing based on material covered

1) Written examination
2) Figure identification

2. LEVEL 2 - INTERMEDIATE

A. Prerequisites

1) Activity as a Basic Level Judge for at least one year.

B. Training Objectives

1) Train judges for intermediate level competitions.
2) Develop knowledge of the duties and responsibilities of a referee at the Basic and Intermediate Levels.

C. Training Procedures and Content

1) Develop further knowledge of the rules, including application of penalties. See SS 10 (Figures), SS 17 (Routines) and SS18 (penalties).
2) Figures

   a. Develop knowledge of the finer points of judging figures per "Expanded Marking Scale for Figures", Section II of this Manual
   b. Develop knowledge of the current FINA Junior Figures (FINA Handbook - Appendix V) by use of:
      • "Analysis of FINA Figures", Section II of this Manual
      • FINA video of 2009-2013 Figures and Technical Routine Elements
   c. Learn the relative difficulty of different parts of each figure per "Identifying Difficulty in Figures", and "Practical Application", Section II of this Manual

d. Obtain practical experience judging Junior and Age Group level figures.

3) Routines

a. Develop an ability to analyze the relative difficulty of all aspects of a routine. Reference: Difficulty section of "Judging Free Routines ", Section III of this Manual
b. Be able to apply the marking scale to the performance of the swimmer(s) per "Expanded Marking Scale for Routines" in Section III of this Manual
c. Obtain practical experience judging Junior and Age Group level routines.

4) Referees

a. Learn the duties and responsibilities of a referee (FINA Handbook) and "Referee Guidelines", Section IV of this Manual

D. Testing based on material covered

1) Written examination.
2) Evaluation of practice judging.
3) Oral test.

3. LEVEL 3 – ADVANCED

A. Prerequisites

1) Activity as an Intermediate Level Judge for at least one year.
2) Practical experience judging basic and intermediate level competitions for at least two years.

B. Training Objectives

1) Train judges for Senior level competitions.
2) Train referees for advanced level competitions.
3) Develop the knowledge and ability to assist in organising and giving judges' training clinics and seminars.

C. Training Procedures and Content

1) Develop a thorough knowledge and application of all FINA rules pertaining to Synchronised Swimming.
2) Develop a complete knowledge and understanding of all FINA figures and their component parts from the standpoint of perfection - in particular those included in Appendix V of the current FINA Handbook:
   a. “Analysis of FINA Figures”, Section II of this Manual
   b. FINA video of 2009-2013 Figures and Technical Routine Elements
3) Develop a complete knowledge and understanding of all aspects of judging Free Routines
   a. "Judging Free Routines" Section III of this Manual
   b. “Combination “ article in this manual
4) Develop a complete knowledge and understanding of judging “Technical Routines”.
   a. FINA Handbook -Technical Routines
   b. "Technical Routines", see Section III of this Manual

D. Testing based on the material covered in all levels of training

1) Written examination.
2) Figure identification.
3) Practice judging of Senior level athletes, with a follow-up evaluation.
4) Oral examination

4. FINA List of Synchronised Swimming Judges

When an official has completed several years of advanced level judging, and has a record of positive evaluations at National Championships, her/his Federation may wish to consider naming her/him to the FINA General List. See “Procedures for FINA List Judges” in Section I of this Manual.

F. ETHICS IN SYNCHRONISED SWIMMING

Ethics: *"the philosophy of morals"*

"the rules or standards governing the conduct of the members of a profession "

"to feel and act accordingly"

In this sport, we depend upon human beings to decide fairly on scores and placings. It is much easier to accept the time on a stopwatch, or a ball being shot in to a goal.

The most significant factors in Synchronised Swimming Judging are Respect, Responsibility and Integrity.

- Being fair, honest and impartial in all dealings and decisions concerning the participants in the Sport, particularly the athletes.
- Being knowledgeable about FINA Rules, and applying them fairly.
- Awareness of external pressures, from club, country, Federation, NOC, and being resistant to these influencing scores.
- Awareness of all possible Bias factors – positive, negative, country, continental, and personal.
- Avoiding discussion of athlete performances until the competition is completed.
- Willing to provide constructive feedback to coaches.
- Exchanging gifts only after the completion of the competition
- Conforming to acceptable dress codes.

As well as with Judging, there are other Ethical considerations within the sport.

- The basics of human lifestyle, and the building of a respective theory.
- The review and the evaluation of norms and values.
- What is right, what is questionable and what is not allowed.
- What affects our decisions, and the freedom in making decisions.

Ethical Considerations of and for other groups:

- Coaches:

    - Respect athletes, psychologically and physically
    - Accept rules and training schedules
    - Respect creativity and avoid copying choreography

- Team Managers:
  - Fairness first /share the pool
  - Cooperate with organisers
- Athletes:
  - Respect fellow competitors
  - Respect rules, including Doping
- Spectators (particularly parents):
  - respect officials and all athletes
- Media and Press:
  - stay impartial and report accurately

G. FORMS

1. **FINA Synchronised Swimming Judges List Confirmation form**
2. **FINA Synchronised Swimming Judges List Activity report**
3. **FINA Synchronised Swimming Judges List Nomination form**
4. **FINA Synchronised Swimming Practice Judge Application form**
5. **FINA Synchronised Swimming Evaluation Form**
6. **FINA Synchronised Swimming Evaluation Summary**

1. CONFIRMATION FORM

PLEASE FILL IN BY COMPUTER OR IN CAPITAL LETTERS.

FOR EACH JUDGE RECONFIRMED, PLEASE FILL IN THE FORM No 2 “Activity Report”.

FEDERATION

NAME	YEAR OF REFERENCE

LIST OF JUDGES (Tick when appropriate)

FIRST NAME	LAST NAME	CAT.	CONFIRM	REMOVE

FEDERATION PRESIDENT / GENERAL SECRETARY

DATE	SIGNATURE

2. ACTIVITY REPORT

PLEASE RETURN ONE COMPLETE FORM FOR EACH G, B or A JUDGE RECONFIRMED FOR 2010 (as per form No 1)

PLEASE FILL IN BY COMPUTER OR IN CAPITAL LETTERS.

FEDERATION

NAME	YEAR OF REFERENCE

JUDGE

FIRST NAME	LAST NAME
YEAR OF BIRTH	SEX (M / F)
FINA LIST CATEGORY (G / B / A) – For new Judges please fill in form No 1 “Nomination form”	

FORMATION

CLINICS (FINA, Continental, Others / Date / Place)	
FINA SCHOOL (Date / Place)	EXAM RESULT

JUDGING ACTIVITY

NATIONAL ACTIVITIES	YES	NO
INTERNATIONAL ACTIVITIES (Name of the Competition / Date / Place)		

SIGNATURE OF PRESIDENT / HONORARY SECR.	

3. NOMINATION FORM

PLEASE RETURN ONE COMPLETED FORM FOR EACH NEW JUDGE.

PLEASE FILL IN BY COMPUTER OR IN CAPITAL LETTERS.

PLEASE JOIN **A PASSPORT / ID CARD COPY FOR EACH NEW JUDGE SUBMITTED.**

FEDERATION

NAME	YEAR OF REFERENCE

JUDGE

FIRST NAME	LAST NAME	
ADDRESS		
PHONE	FAX	
EMAIL	DATE OF BIRTH	SEX (M / F)

TRAINING

NATIONAL COURSES ATTENDED	YEAR
FINA CLINICS ATTENDED	YEAR
FINA SCHOOLS ATTENDED	YEAR

JUDGING EXPERIENCE

NATIONAL COMPETITIONS (min. 3 years)	YEAR
INTERNATIONAL COMPETITIONS	YEAR

JUDGE'S SIGNATURE	

FEDERATION PRESIDENT / GENERAL SECRETARY

FIRST NAME	LAST NAME
ADDRESS	
PHONE	FAX
EMAIL	
DATE	SIGNATURE

TSSC USE

DATE RECEIVED	
TSSC REPRESENTATIVE	POSITION

PRACTICE JUDGING FORM

PLEASE FILL IN BY COMPUTER OR IN CAPITAL LETTERS.

PLEASE RETURN TO THE FINA OFFICE **60 DAYS PRIOR TO THE COMPETITION**.

FEDERATION

NAME	YEAR OF REFERENCE

JUDGE TO BE INCLUDED IN THE SHADOW PANEL

FIRST NAME	LAST NAME
FINA LIST CATEGORY (G, B, A)	SINCE (year)
NUMBER OF EVALUATIONS FROM FINA	

COMPETITION (tick where appropriate)

NAME	CHOICE

FEDERATION PRESIDENT / GENERAL SECRETARY

DATE	SIGNATURE

SYNCHRONISED SWIMMING COMPETITION **EVALUATION PER JUDGE**

This form must be sent to the FINA Data Base Manager within 60 days (Summary of evaluations, use one form per judge)

Name of Judge ..... Federation .... Qualification : **A B G** Other : .....

Competition ..... Place .....

Date ..... Observer .....

Item	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Fl, S, D, T, C**	**Remarks**
	Tech / Free	**Tech / Free**	**Tech / Free**	**Tech / Free**	**Tech / Free**	**Tech / Free**	**Tech / Free**	
	Prelim / Final	**Prelim / Final**	**Prelim / Final**	**Prelim / Final**	**Prelim / Final**	**Prelim / Final**	**Prelim / Final**	
	TM, AI, EX, OI	**TM, AI, EX, OI**	**TM, AI, EX, OI**	**TM, AI, EX, OI**	**TM, AI, EX, OI**	**TM, AI, EX, OI**	**TM, AI, EX, OI**	
Number of Participants:								
Places performance in correct score range	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Recognizes performances of equal level	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Placing top swimmers	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Placing middle swimmers	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Placing lowest swimmers	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Distribution of Scores	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Quaflification re tying Routines	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
Total deviations (according computer-info)	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
EVALUATION: general judging	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	**5 4 3 2 1**	
EVALUATION: re no bias	**3 2 1**	**3 2 1**	**3 2 1**	**3 2 1**	**3 2 1**	**3 2 1**	**3 2 1**	
General comments (if anything special) on: Independence, own opinion, promptness, general behaviour, concentration etc.								

5 Excellent ¦ 4 = Very Good ¦ 3 = Good ¦ 2 = Satisfactory ¦ 1 = Weak

3 Good ¦ 2 -Satisfactory ¦ 1 Unacceptable

Overall evaluation for this competition:	**5 4 3 2 1**
Overall evaluation related to no bias:	**3 2 1**

General Remarks :

Date: _____ Signature: _____

EVALUATION SUMMARY

This form should accompany the individual Judge Evaluation Forms, and be sent to the FINA Database Manager within 60 days of the Competition.

If the competition is multi level, please complete a separate form for each level.

COMPETITION

NAME		
DATES (FROM / TO)		
PLACE (City, NF)	EVALUATOR	
LEVEL (CIRCLE WHERE APPROPRIATE)		
SENIOR/OPEN	JUNIOR	AGE GROUP: _____

PARTICIPATION

NUMBER OF CONTINENTS	NUMBER OF COUNTRIES
NUMBER OF ENTRIES IN ROUTINES	TOTAL NUMBER OF ATHLETES

ENTRIES IN COMPETITION BY SESSION

TECHNICAL SOLOS:	FREE SOLOS:
TECHNICAL DUETS:	FREE DUETS:
TECHNICAL TEAMS:	FREE TEAMS:
COMBINATIONS:	FIGURES:

COMMENTS

SECTION II

FIGURES

A. JUDGING FIGURES

A figure is a combination of basic body positions and transitions, performed in a manner and order as prescribed by the FINA Handbook rule descriptions.

1. FINA RULES FOR JUDGEMENT OF FIGURES

SS 10 – JUDGEMENT OF FIGURES

SS 10.1 All judgments are made from the standpoint of perfection.
Design: Consider: the accuracy of positions and transitions as specified in figure description.
Control: Consider: extension, height, stability, clarity, uniform motion, unless otherwise specified in the figure description.
Figures are executed in a stationary position (unless otherwise specified in the figure description).

SS 10.1.1 The competitor can obtain points from 0 – 10 using 1/10th points.

Perfect	10
Near perfect	9.9 to 9.5
Excellent	9.4 – 9.0
Very Good	8.9 – 8.0
Good	7.9 – 7.0
Competent	6.9 – 6.0
Satisfactory	5.9 – 5.0
Deficient	4.9 – 4.0
Weak	3.9 – 3.0
Very weak	2.9 – 2.0
Hardly recognisable	1.9 – 0.1
Completely failed	0

APPENDIX IV - RULES FOR FIGURES

Unless otherwise specified in the description, figures shall be executed high and controlled, in uniform motion, with each section clearly defined.

Notes:

1. Figures are defined in terms of their component parts: body positions and transitions. Refer to Appendix II for body position requirements and Appendix III for descriptions of common basic movements.

2. A transition is a continuous movement from one position to another. The completion of a transition should occur simultaneously with the achievement of body position and desired height. Except where otherwise specified, water level remains constant during a transition.

3. Unless otherwise specified in the figure description, maximum height is desirable at all times.

4. Unless otherwise specified in the figure description, figures are executed in a stationary position. Transitions which allow some movement will be marked with an arrow in the diagram.

5. Diagrams are a guide only. If there is discrepancy between a diagram and a written description, the English written version of the FINA Handbook shall prevail.

6. During the execution of a figure, a pause may occur only in those positions which are printed in 'Bold type' and defined in Appendix II.

7. Basic movements are described only once, in Appendix III, and are '*italicized'* when referred to in a figure description.

8. When 'and' is used to connect two actions, it means one follows the other; when 'as' is used, it means both actions occur simultaneously.

9. Arm/hand positions and actions are optional.

10. When 'rapid' or 'rapidly' is used in a description, it shall apply specifically to the tempo of the transition in which it is included, and not to the entire figure.

2. GUIDELINE FOR FIGURE JUDGING

1. Design - that portion of the figure award attributed to evaluation of the degree of conformation to those positions and movements specified in the figure description.

Specific design factors - accuracy of all body positions and transitions

a. accuracy of the lines, angles, arches and circles
Examples:

a) a **Ballet Leg position** is perpendicular to the surface
b) a **Fishtail position** has foot of extended leg at the surface
c) in a Dolphin, the body must describe a circle

b. accuracy of alignment of body parts
Examples:

a) in **Vertical positions**, alignment of ear, shoulder joint, hip joint and ankle bone
b) in a **Split position**, vertical alignment of head, shoulder and hip joints; and horizontal alignment of hip and shoulder joints with the two horizontal lines 'square' and parallel to one another.

c. correctness of pikes and tucks
Examples:

a) 90° angle in **Front Pike position**
b) **Back Pike position** 45° angle or less, with legs and trunk extended
c) **Tuck positions** as compact as possible

d. accuracy of transitional movements
Examples:

a) in *assuming a Front Pike Position*, the hips replace the head at the surface
b) in *Arch to Back Layout Finish Action* and *Walkouts*, head replaces hips at the surface
c) in a *Combined Spin*, the *ascending* and *descending spins* must have the same number of revolutions

2. Control - that portion of the figure award attributed to evaluation of how well a performance achieves the control factors. The control factor is the use of strength and coordination to demonstrate mastery of figure execution.

Control in figures is the ability to:

- maintain stable correct positions
- move the body smoothly, accurately and effortlessly through the required transitions
- remain 'on-the-spot' unless otherwise specified in the description
- give an overall impression of ease of performance.

Specific control factors:

a. Extension - of total body throughout the figure, unless otherwise specified.

b. Sustained maximum height - of body parts in relation to the water surface, unless otherwise specified in the figure description.

c. Uniform motion - constant speed of action throughout the figure, unless otherwise specified in the figure description.

There shall be constant speed of action through each transitional movement. This does not mean that every transition takes the same amount of time, as it depends on the range of movement required. Transitions are to be executed without any pauses or stops therein.

Judging emphasis is placed on controlled uniformity of performance speed, not slowness.

When the rule requires a tempo change during one or more parts of a figure, the change(s) must conform to the tempo(s) specified.

When the rule requires 'rapid' or 'rapidly' movement in the figure, it should be obviously visible more speed than all non-rapid actions.

d. Stationary - 'on-the-spot', with no travelling, except for movement specified in a figure description.

e. Stability - solid, with equilibrium maintained and unaffected by change of position.

f. Clarity - clear definition between positions and directions, continuous course of action in the transitions.

Transitions proceed through the most direct and accurate course of action. When the transition is finished, there should be a slight pause - as a 'comma', not a 'period' – to define the position and completion of the transition, before the next transition begins.

g. Ease of performance - overall impression. Appearance of total confidence and effortless, fluid execution without evidence of strain.

Although FINA rules do not specify the use of Design and Control when assigning scores for figures, it is useful for training judges.

3. BASIC PRINCIPLES OF FIGURE JUDGING

1. Plumb line points of reference are used when evaluating vertical and horizontal alignments.

2. The head always follows the alignment of the spine.

3. When initiating a transition, the swimmer never begins by reversing the specified direction of movement.

4. Unless otherwise specified by the figure description, all movements are executed so as to be equal in time and space, with simultaneous and concurrent action within transitions. All movements specified within a transition should begin from the specified starting position and be completed with the achievement of the specified final position and level.

5. Axis: - a straight line around which the body rotates.

   a. Longitudinal axis - the lengthwise centre of the body.
   b. Lateral axis - extending sideways from the body, either through a cross section (such as the hips), or outside the body.

   During a specific figure movement, the use of the term horizontal or vertical axis specifies the relationship of the longitudinal axis to the surface of the water.

6. Height is judged by evaluating the relationship of the hip joint to the surface of the water.

4. EXPANDED MARKING SCALE FOR FIGURES

10 Perfect	9.5 to 9.9 Near Perfect	9.0 to 9.4 Excellent	8.0 to 8.9 Very Good	7.0 to 7.9 Good	6.0 to 6.9 Competent
General Impression					
Flawless	Minute deviations from perfection.	Hardly any errors.	A few minor Errors.	Above average.	Average. Comfortable.
Body Positions					
Total accuracy. Stable, controlled.	Very precise. Solid. Minute deviations, difficult to detect.	Accurate but some may lack complete clarity. Stable.	Most are clear & accurate. A few very minor inaccuracies in stability and/or control.	May lack some accuracy but no major errors. Stability not maintained throughout.	Several minor inaccuracies. Not consistent. Lack of control in difficult parts.
Transitions					
Most efficient and accurate course of action. Effortless & confident. Completely fluid & smooth.	Direct course of action. Positions' click into place'. No wavering.	Very minor but noticeable inaccuracies or breaks in fluidity. Noticeable signs of effort.	Minor deviations in accuracy, efficiency &/or fluidity. Not effortless in all sections.	Obvious irregularities but none are major. Unsure and strained in parts.	Inconsistent. Problems with more difficult transitions. Effort evident.
Clarity/Definition					
Precise distinction between positions and transitions, with maximum extension throughout.	Sharp. 'Show & Go'. Clear distinction between.	Deviations are few and minor. Well extended.	Accurate and clear with a few minor deviations from precision. Minor inconsistencies in extension.	Clear distinction, but not always precise. Full extension not maintained throughout.	Some obvious slurring between positions & transitions. Incomplete extension.
Height					
Maximum at all times, with level maintained as required throughout.	Almost maximum with no level changes except as required.	Close to maximum with minimal level changes.	Fairly high, but may lose height on most difficult transition.	Moderately high on easy parts with some minor level changes.	Average height. Inconsistent & changing.
Uniform motion	**/ Travel**				
Smooth, uniform tempo at a comfortable speed. No travel unless specified.	Next to no variation in timing or position.	Very minor variations.	Timing a little too fast or too slow. Not always uniform. Little if any travel.	Tempo changes. Strained at times. Minimal travel.	Tempo may be hurried and/or uneven. Obvious travel in one or more parts.

EXPANDED MARKING SCALE FOR FIGURES - continued

5.0 to 5.9 Satisfactory	4.0 to 4.9 Deficient	3.0 to 3.9 Weak	2.0 to 2.9 Very Weak	0.1 to 1.9 Hardly Recognizable	0 Completely Failed
General Impression					
Mediocre. Significant deviations.	Problems frequent and major.	Struggling in all aspects.	Difficult to recognize.	Performance bears almost no resemblance to description.	See SS 10.1.1
Body Positions					
Many minor problems. Major errors at lower end of range. Minimal control.	Most positions inaccurate with some major problems. Unstable.	Identifiable but very inaccurate throughout. Struggling.	General outline present, but positions unclear. No control evident.	Complete lack of definition.	See SS 10.1.1
Transitions					
Accuracy inconsistent. Some major deviations. Minimal control especially in transitions. Effort evident throughout.	Some evident effort to meet requirements, but major errors throughout. Loses control in many parts. Looks like work.	Little attention to transition specifics. Many major problems.	No attention to transition specifics.	Merely moves from one position to another.	See SS 10.1.1
Clarity/Definition					
Some attempt to define positions, but often not clear. Minimal extension.	Imprecise and blurred. Poor extension.	Very hazy.	Difficult to identify a position or a transition. No extension evident.	Figure is continuous blur from beginning to end.	See SS 10.1.1
Height					
Some height may be evident in easier sections.	Low and inconsistent. Level changes throughout.	Low. Extreme difficulties.	Natural buoyancy only.	Working at float level.	See SS 10.1.1
Uniform motion / Travel					
Often rushed & seldom stationary. Segmented.	Usually rushed. Much travel. Uneven tempo.	Fast and/or uneven tempo. Travel throughout.	No apparent consideration for timing or travel requirements.	Completely lacking in uniformity.	See SS 10.1.1

B. IDENTIFYING DIFFICULTY IN FIGURES

1. TABLES OF TRANSITION

The following table includes the numerical values for each transition. All transitions were reviewed and modified as required by the formula. **The difficulty indicator for each transition is included on the figure analysis charts in Section II, in the column headed NV for Numerical Value.** These tables and the values included in the charts are to be used as a guide only. If there is any discrepancy between information as recorded in this Manual and as recorded in the *Revised Report of the Ad Hoc Committee on Degrees of Difficulty*, the Revised Report shall prevail. The Revised Report dated October 27, 2009 is available from the FINA Office.

1. Category 1: Airborne - Horizontal Base

1.1	Back Layout to Bent Knee	10.5
1.2	Back Layout to Ballet Leg	14.5
1.3	Back Layout to Double Bent Knee	19.0
1.4	Ballet Leg to Tub	4.0
1.5	Ballet Leg to Bent Knee	11.0
1.6	Ballet Leg to Flamingo	10.5
1.7	Ballet Leg to Back Layout (straight)	14.5
1.8	Ballet Leg to Double Ballet Leg (Straight)	20.0
1.9	Bent Knee to Ballet Leg	11.0
1.10	Bent Knee to Back Layout	10.5

1.11	Double Ballet Leg 360 Rotation	23.0
1.12	Double Ballet Leg to Ballet Leg (Straight)	16.5
1.13	Double Ballet Legs to Tub	19.0
1.14	Double Bent Knee to Back Layout	19.0
1.15	Front Layout to bent Knee	7.5
1.16	Flamingo to Back Layout	13.0
1.17	Flamingo to Bent Knee (Ballerina)	15.0
1.18	Flamingo to Double Ballet Legs	16.0
1.19	Tub to Double Ballet Leg	19.0
1.20	Tub to Back Layout	4.0

2. Category 2: Airborne - Vertical Base

2.1	Crane to Front Pike	17.5
2.2	Crane to Knight (Dalecarlia)	23.0
2.3	Crane to Split	16.5
2.4	Crane to Vertical	18.5
2.5	Crane to Vertical Bent Knee (Neptunus)	14.5
2.6	Fishtail to Knight (Aurora Open)	17.0
2.7	Fishtail to Vertical (Jupiter)	18.5
2.8	Front Pike to Crane	13.5
2.9	Front Pike to Fishtail (Beluga)	13.5

2.10	Front Pike to Split	21.0
2.11	Front Pike to Vertical	29.0
2.12	Front Pike to Vertical Bent Knee	16.0
2.13	Knight to Fishtail (Jupiter)	17.0
2.14	Vertical Bent Knee to Vertical	14.5
2.15	Vertical to Crane	19.5
2.16	Vertical to Knight	21.5
2.17	Vertical to Split	19.0

3. Category 3: Arched Base or Movement

3.1	Airborne Split to Airborne Split	60.0
3.2	Airborne Split to Vertical Bent Knee	19.0
3.3	Airborne Split to Vertical (as Twirl is executed)	23.0
3.4	Arched Fishtail to Arched Vertical (Pirouette)	24.5
3.5	Arched Fishtail to Crane (Hightower)	11.0
3.6	Arched Vertical Bent Knee to Surface Arch (Pirouette)	20.0
3.7	Arched Vertical Bent Knee to Ballet Leg (Swordasub)	22.5
3.8	Arched Vertical Bent Knee to Knight (Swordtail)	21.0
3.9	Bent Knee Surface Arch to Vertical Bent Knee	21.0
3.10	Bent Knee Surface to Surface Arch	15.5
3.11	Bent Knee Surface Arch to Vertical (Element-Nova)	21.5
3.12	Bent Knee Surface Arch to Vertical (Cyclone)	39.0
3.13	Front Layout to Split	30.0
3.14	Front Layout Bent Knee to Bent knee Surface Arch (Swordfish)	31.0
3.15	Knight to Ballet Leg	14.0
3.16	Knight to Bent Knee Surface Arch	19.5
3.17	Knight to Surface Arch	20.5
3.18	Knight to Split	16.5
3.19	Knight to Vertical	21.5
3.20	Knight to Vertical Bent Knee	16.0
3.21	Surface Arch to Knight	17.5
3.22	Surface Arch to Split	21.0
3.23	Split to Crane	13.5
3.24	Split to Front Pike	18.0
3.25	Split to Knight	18.5
3.26	Split to Surface Arch	24.0
3.27	Split to Vertical	16.0
3.28	Split to Vertical (Ankle Level) (Blossom & Prawn)	7.0

4. Category 4: Arches/Arcs

4.1	Back Layout to Surface Arch	16.0
4.2	Back Layout to Bent Knee Surface Arch	19.5
4.3	Back Layout to Vertical (Spiral)	39.0
4.4	Ballet Leg to Knight	22.0
4.5	Crane to Bent Knee Surface Arch (Manta Ray)	23.5
4.6	Front layout to Arched Fishtail (Hightower)	25.5
4.7	Front Layout Bent Knee to Arched Vertical Bent Knee	28.0
4.8	Surface Arch to Back Layout	11.0
4.9	Vertical Bent Knee to Bent Knee Surface Arch	20.0
4.10	Vertical Bent Knee to Split (Element – Solo & Duet)	19.0
4.11	Vertical to Surface Arch	33.0
4.12	Vertical to Split (Element – Solo, Duet & Team)	19.0

5. Category 5: Circular Patterns

5.1	(HF/FF) Back Layout to Dolphin First 1/4	8.0
5.2	(HF/FF) Dolphin - Second ¼	8.0
5.3	(HF/FF) Dolphin - Third ¼	8.0
5.4	(HF/FF) Dolphin - Fourth ¼	8.0
5.5	(HF/FF) Back Layout to Dolphin Bent Knee – First ¼	8.5
5.6	(HF/FF) Back Layout to Dolphin Bent Knee – Second ¼	8.5
5.7	(HF/FF) Dolphin Bent Knee Third ¼	8.5
5.8	(HF/FF) Dolphin Bent Knee Fourth ¼	8.5

5.9	Dolphin Arch to submerged Vertical (HF/FF)	8.0
5.10	Dolphin Arch Bent Knee to submerged Bent Knee Vertical	8.5
5.11	Vertical Descent onto Dolphin Circle	8.0
5.12	Bent Knee Vertical descent Onto Dolphin Bent Knee Circle	8.5
5.13	Foot First submerged Dolphin arch to submerged Vertical	8.0
5.14	Foot First submerged Bent Knee Dolphin arch to submerged Bent Knee Vertical	8.5
5.15	Vertical Descent onto Dolphin Foot First Circle	8.0
5.16	Bent Knee Vertical Descent onto Dolphin Foot First Bent Knee Circle	8.5

6. Category 6: Descending

6.1	Ballet Leg to submerged Ballet Leg	12.5
6.2	Back Layout to submerged Ballet Leg Double	12.0
6.3	Back Layout to submerged Back Pike	13.0
6.4	Ballet Leg Double to submerged Ballet Leg Double	15.0
6.5	Vertical to ankle level Vertical	14.0

6.6	Vertical to submerged Vertical	14.0
6.7	Vertical Bent Knee to submerged Vertical Bent Knee	10.0
6.8	Vertical Bent Knee to submerged Vertical (Neptunus)	9.5
6.9	Split to ankle level Vertical (Blossom)	7.0

7. Category 7: Multi-dimensional

7.1	Arched Bent Knee Vertical to Submerged Flamingo (Swordalina)	20.5
7.2	Ballet Leg to Front Pike	12.0
7.3	Ballet Leg to Pirouette arched Fishtail	23.0
7.4	Ballet Leg to Crane (Catalina)	24.0
7.5	Crane to Ballet Leg (Reverse Catalina)	24.0

7.6	Crane to Ballet Leg Double (Alba)	24.5
7.7	Front Pike to Vertical with Full Twist	33.0
7.8	Side Ballet Leg to Front Pike	16.0
7.9	Submerged Ballet Leg to Crane (Subalina)	17.5
7.10	Submerged Ballet Leg Double To Vertical (Gaviata)	23.0

8. Category 8: Submerged

8.1	Submerged Ballet Leg to Ballet Leg	10.5
8.2	Submerged Ballet Leg Double to Double Ballet Leg	19.0
8.3	Submerged Ballet Leg Double to Submerged Ballet Leg	7.0
8.4	Submerged Ballet Leg Double to Submerged Heron Pike	5.0
8.5	Submerged Ballet Leg Double to Submerged Flamingo	5.0
8.6	Submerged Ballet Leg Double to Split (Blossom)	13.0
8.7	Submerged Bent Knee Vertical to Bent Knee Vertical	10.0

8.8	Submerged Flamingo to Ballet Leg	11.5
8.9	Submerged Flamingo to Flamingo (Ballerina)	9.5
8.11	Submerged Vertical to Crane (Dolpholina)	9.5
8.12	Submerged Vertical to Submerged Back Pike	16.0
8.13	Submerged Vertical to Submerged Ballet Leg Double	10.0
8.14	Submerged Vertical to Vertical	14.0

9. Category 9: Rotation – Lateral Axis

9.1	Back Layout to Tuck	4.0
9.2	Back Layout to Back Pike	16.0
9.3	Back Pike to “V” (Back Pike Somersault)	15.0
9.4	Ballet Leg to Crane (Ibis)	26.0
9.5	Crane to Ballet Leg	22.0
9.6	Front Layout to Front Pike	12.0
9.7	Front Pike to submerged Ballet Leg Double	12.0
9.8	Front Pike (head down) to Front Layout	9.0

9.9	Front Pike (legs down) to Front Layout	10.0
9.10	Inverted Submerged Ballet Leg to Crane (tip)	18.5
9.11	“V” Pike to Back Layout	3.0
9.12	Submerged Double Ballet Let To Front Pike (legs down)	12.0
9.13	Tuck to Tuck	8.0
9.14	Tuck to Back Layout	4.0
9.15	Tuck to Inverted Tuck	10.0

10. Category 10: Rotation – Longitudinal Axis

a. Horizontal Planes

10.1	Ballet Leg to Side Ballet Leg	18.5
10.2	Inverted submerged Ballet Leg to submerged Ballet Leg	18.0

10.3	Submerged Ballet Leg to Inverted submerged Ballet Leg	18.0

b. Twists

10.4	Crane ½ Twist	15.0
10.5	Fishtail to Vertical with ½ Twist (Carousel)	19.5
10.6	Front Pike to Split through Side Fishtail	23.0
10.7	Knight ½ Twist (Aurora Open 180^0)	26.0
10.8	Knight Full Twist (Aurora Open 360^0)	29.0
10.9	Knight to Fishtail (Aurora)	13.0
10.10	Split ½ Twist	18.0
10.11	Split thru Knight variant to VBK With ½ twist (Minerva)	26.0
10.12	Split to Split (Ariana)	9.0
10.13	Split to V with ½ Twist	18.0

10.14	Split to Vertical with Full Twist	21.0
10.15	Vertical ½ Twist	19.0
10.16	Vertical ½ Twist (Cyclone – Opposite Direction)	20.0
10.17	Vertical Full Twist	29.0
10.18	Vertical to Fishtail with ½ Twist (Carousel)	19.5
10.19	Vertical to Split with ½ Twist	21.0
10.20	Vertical Bent Knee ½ Twist	15.5
10.21	Vertical Bent Knee Full Twist	22.0
10.22	Vertical Bent Knee to Vertical ½ Twist (Albatross)	18.5
10.23	Vertical Bent Knee to Vertical Full Twist (Nova)	18.5

c. Twirls

10.24	Fishtail 3 Full Twists (Rapid)	19.0
10.25	Vertical at ankles (Prawn)	16.0
10.26	Vertical	23.0

10.27	Vertical to Vertical Bent Knee	19.5
10.28	Vertical Bent Knee	19.5
10.29	Vertical Bent Knee to Vertical (Albatross)	19.5

d. Descending Spins

10.30	Crane to Vertical Descent (Helicopter)	36.0
10.31	Fishtail to Vertical 180^0 (Carousel)	18.5
10.32	Vertical 180^0 (Stable Base)	17.0
10.33	Vertical 180^0 (Unstable Base)	19.0
10.34	Vertical 360^0 (Stable Base)	19.0
10.35	Vertical 360^0 (Unstable Base)	21.0
10.36	Vertical Continuous Spin (Stable base)	27.0

10.37	Vertical Continuous Spin (Unstable base)	29.0
10.38	Vertical Bent Knee 180^0	13.0
10.39	Vertical Bent Knee Join 180^0 (Stable Base)	13.0
10.40	Vertical Bent Knee Join 180^0 (Unstable Base)	15.0
10.41	Vertical Bent Knee 360^0	15.0
10.42	Vertical Bent Knee Join 360^0	15.0
10.43	Vertical Bent Knee Continuous Spin	24.0

e. Ascending Spins

10.44	Vertical 180^0	19.0
10.45	Vertical 360^0	20.0
10.46	Vertical Bent Knee 180^0	15.0
10.47	Vertical Bent Knee Join 180^0 (Albatross)	14.5

10.48	Vertical Bent Knee 360^0	16.5
10.49	Vertical Bent Knee Join 360^0 (Albatross)	21.0
10.50	Vertical to Fishtail 180^0 (Carousel)	18.5

f. Combined Spins

10.51	Combined Spin	39.0
10.52	Reverse Combined Spin	39.0
10.53	Twist Spin	46.0

10.54	Vertical Bent Knee Combined (Heron)	31.5
10.55	Vertical Bent Knee Combined - Joining and bending (Albatross)	31.5

11. Category 11 - Unroll

11.1	Ballet Leg Double to Vertical	26.0
11.2	Flamingo to Crane (Manta Ray)	22.5
11.3	Flamingo to Fishtail (Sting Ray)	25.0
11.4	Flamingo To Vertical Bent Knee	22.0
11.5	Inverted Tuck to Vertical	23.0
11.6	Inverted Tuck to Vertical (Kipswirl)	50.0
11.7	Inverted Tuck to Vertical Bent Knee (Kipnus)	17.5

11.8	Submerged Back Pike to Vertical (Thrust)	37.0
11.9	Submerged Back Pike to Vertical (Thrust thru Fishtail-Flying Fish)	85.0
11.10	Submerged Back Pike to Vertical Bent Knee (Thrust)	34.0
11.11	Submerged Double Ballet Leg to Knight	19.5
11.12	Submerged Ballet Leg Double to Vertical (slow)	21.0
11.13	Submerged Heron pike to Vertical Bent Knee (Thrust)	30.0

2. 2009-2013 FINA FIGURE GROUPS

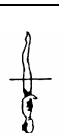
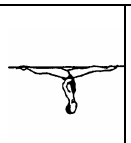
The figure charts in this section include a practical application for using the numerical difficulty values of each transition when judging figures.

- Line 1: figure illustrations
- Line 2: numerical difficulty value [NVT] of the transition between the preceding body position and the body position illustrated above the number.
- Line 3: proportional value [PV] of the transition out of the 10 maximum points, which may be awarded for the figure.

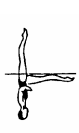
1. SENIOR, JUNIOR and AGE GROUP 16, 17, 18 FIGURES

Compulsory

1 313 Kip Split Closing 180° 2.5

								Total
NVT=	4.0	10.0	23.0	19.0	18.0	14.0		88
PV =	0.45	1.14	2.61	2.16	2.05	1.59		

2 112f Ibis Continuous Spin (720°) 2.8

								Total
NVT=	10.5	11.0	26.0	18.5	27.0			93
PV =	1.13	1.18	2.80	1.99	2.90			

Optional Groups

Group 1

3 336 Gaviata Open 180° 2.8

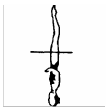
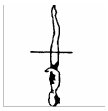
								Total
NVT=	12.0	12.0	23.0	21.0	24.0	11.0		103
PV =	1.17	1.17	2.23	2.04	2.33	1.07		

4 436 Cyclone 2.7

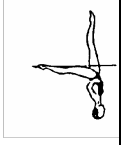
						Total
NVT=	19.5	39.0	20.0	14.0		92.5
PV =	2.11	4.22	2.16	1.51		

Group 2

3 355b Porpoise Full Twist 2.5

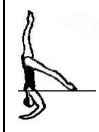
								Total
NVT=	12.0	29.0	29.0	14.0				84
PV =	1.43	3.45	3.45	1.67				

4 150 Knight 3.1

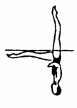
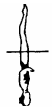
									Total
NVT=	10.5	11.0	22.0	16.0	15.5	20.0	15.5	11.0	121.5
PV =	0.86	0.91	1.81	1.32	1.28	1.65	1.28	0.91	

Group 3

3 307 Flying Fish 3.0

									Total
NVT=	13.0	85.0			14.0				112
PV =	1.16	7.59			1.25				

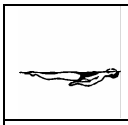
4 115c Catalina Twirl 2.8

								Total
NVT=	10.5	11.0	24.0	18.5	23.0	14.0		101
PV =	1.04	1.09	2.38	1.83	2.28	1.39		

AGE GROUP 13, 14, 15 FIGURES

Compulsory

1 420 Walkover Back 2.0

								Total
NVT=	16.0	21.0	18.0	9.0				64
PV =	2.50	3.28	2.81	1.41				

2 355e Porpoise Spinning 360° 2.1

								Total
NVT=	12.0	29.0	19.0					60
PV =	2.00	4.83	3.17					

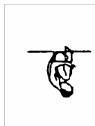
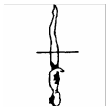
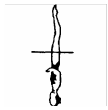
Optional Groups

Group 1

3 342 Heron 2.1

								Total
NVT=	12.0	12.0	5.0	30.0	10.0			69
PV =	1.74	1.74	0.72	4.35	1.45			

4 311a Kip ½ Twist 2.2

								Total
NVT=	4.0	10.0	23.0	19.0	14.0			70
PV =	0.57	1.43	3.29	2.71	2.0			

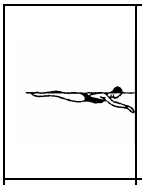
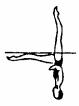
Group 2

3 240 Albatross 2.2

								Total
NVT=	12.0	16.0	15.5	14.5	14.0			72
PV =	1.67	2.22	2.15	2.01	1.94			

AGE GROUP 13, 14, 15 - continued

4 345 Catalina Reverse 2.1

								Total
NVT=	12.0	13.5	24.0	11.0	10.5			71
PV =	1.69	1.90	3.38	1.55	1.48			

Group 3

3 301d Barracuda Spinning 180° 2.1

								Total
NVT=	13.0	37.0	17.0					67
PV =	1.94	5.52	2.54					

4 140 Flamingo Bent Knee 2.4

							Total
NVT=	10.5	11.0	10.5	22.0	14.5	14.0	82.5
PV =	1.27	1.33	1.27	2.67	1.76	1.70	

AGE GROUP 12 AND UNDER FIGURES

Compulsory

1 101 Ballet Leg Single 1.6

								Total
NVT=	10.5	11.0	11.0	10.5				43
PV =	2.44	2.56	2.56	2.44				

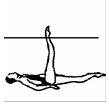
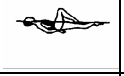
2 360 Walkover Front 2.1

								Total
NVT=	12.0	21.0	24.0	11.0				68
PV =	1.76	3.09	3.53	1.62				

Optional Groups

Group 1

3 321 Somersub 2.0

								Total
NVT=	12.0	12.0	7.0	10.5	11.0	10.5		63
PV =	1.90	1.90	1.11	1.67	1.75	1.67		

4 315 Kipnus 1.6

						Total
NVT=	4.0	10.0	17.5	10.0		41.5
PV =	0.96	2.41	4.22	2.41		

Group 2

3 355 Porpoise 1.9

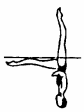
							Total
NVT=	12.0	29.0	14.0				55
PV =	2.18	5.27	2.55				

4 401 Swordfish 2.0

							Total
NVT=	7.5	31.0	15.5	11.0			65
PV =	1.15	4.77	2.38	1.69			

Group 3

3 344 Neptunus 1.8

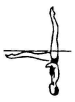
							Total
NVT=	12.0	13.5	14.5	9.5			49.5
PV =	0.24	0.27	0.29	0.19			

4 301 Barracuda 2.0

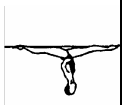
							Total
NVT=	13.0	37.0	14.0				64
PV =	2.03	5.78	2.19				

NEW FINA FIGURES 2009-2013

142 Manta Ray - 2.8

								Total
NVT=	10.5	11.0	10.5	22.5	23.5	15.5	11.0	104.5
PV =	0.86	0.91	0.86	1.85	1.93	1.28	0.91	

241 Goeland - 2.0

								Total
NVT=	12.0	23.0	18.0	9.0				62
PV =	1.94	3.71	2.9	1.45				1.99

315b Kipnus Variant – 2.1

							Total
NVT=	4.0	10.0	17.5	18.5	14.0		64
PV =	0.63	1.56	2.73	2.89	2.19		

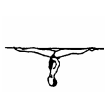
316 Kip Bent Knee – 2.0

							Total
NVT=	4.0	10.0	17.5	14.5	14.0		60
PV =	0.67	1.67	2.92	2.42	2.33		

326 Lagoon – 2.7

								Total
NVT=	12.0	12.0	21.0	21.5	20.5	11.0		98
PV =	1.35	1.35	2.36	2.42	2.3	1.24		

362 Surface Prawn -1.7

								Total
NVT=	12.0	12.0	7.0	16.0	0.0			47
% =	2.24	2.24	1.31	2.99	0.0			

363 Water Drop -1.6

							Total
NVT=	12.0	16.0	13.0	0.0			41
% =	2.93	3.9	3.17	0.0			

437 Oceanea – 2.0

							Total
NVT=	19.5	21.0	27.0				67.5
PV =	2.89	3.11	4.00				

3. ANALYSIS OF BASIC BODY POSITIONS

FINA Handbook APPENDIX II - Basic Positions

In all basic positions:

a) arm positions are optional,
b) toes must be pointed, ankle must be flexed
c) the legs, trunk and neck are fully extended unless otherwise specified, and
d) diagrams show the usual water levels.

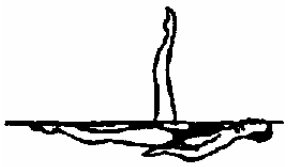
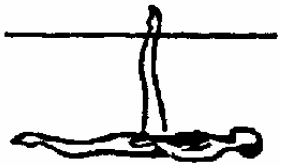
BP 1 Back Layout Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body extended with face, chest, thighs and feet at the surface.		1. Gives the impression that the body is stretched horizontally to its maximum. Front of the trunk will also be at the surface of the water.
2. Head (ears specifically), hips and ankles in line.		2. Judgement made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint and ankle. This imaginary line should also pass through the middle of the side of the trunk.

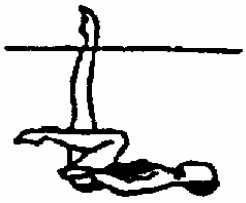
BP 2 Front Layout Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body extended with head, upper back, buttocks and heels at the surface.		1. Gives the impression that the body is stretched horizontally to its maximum. Judgement made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint and ankle.
2. Face may be in or out of the water.		2. Once established as 'in' or 'out' the head position should be maintained. When the face is out of the water, the ears will not be on the horizontal axis, and the back may be slightly lower.

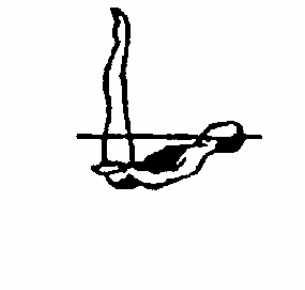
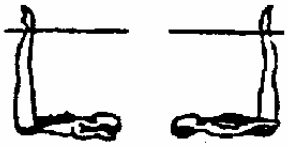
BP 3 Ballet Leg Position

Rule Book Description	Diagrams	Major Desired Actions
a) Surface		
1. Body in **Back Layout Position**.		1. See BP 1 **Back Layout Position.**
2. One leg extended perpendicular to the surface.		2. 90˚ angle between extended leg and surface. Angle of ballet leg to trunk as close to 90˚ as possible. Ear, shoulder joint, hip joint and ankle of horizontal leg as close as possible to horizontal alignment.
b) Submerged		
1. Head, trunk and horizontal leg parallel to the surface.		1. See body alignment requirements of BP 1 **Back Layout Position**.
2. One leg perpendicular to the surface with the water level between the knee and the ankle.		2. The angles between the ballet leg and the body must be 90˚.

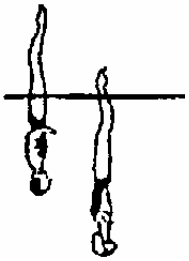
BP 4 Flamingo Position

Rule Book Description	Diagrams	Major Desired Actions
a) Surface		
1. One leg extended perpendicular to the surface.		1. 90°angle between the extended leg and surface.
2. The other leg drawn to the chest with the mid-calf opposite the vertical leg, foot and knee at and parallel to the surface.		2. The top of the bent leg, from knee to toes, should be "dry", with the vertical leg extended perpendicular to it midway between knee and ankle.
3. Face at the surface.		3. Chest close to the surface with the shoulders back. Ear, shoulder and hip-joint aligned with the spine straight and extended.
b) Submerged		
1. Trunk, head and shin of the bent leg parallel to the surface.		1. Ear, shoulder and hip-joint aligned.
2. 90°angle between the trunk and extended leg.		
3. Water level between knee and ankle of the extended leg.		

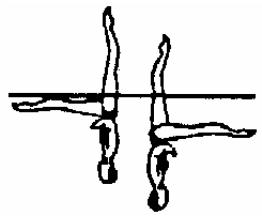
BP 5 Ballet Leg Double Position

Rule Book Description	Diagrams	Major Desired Actions
a) Surface		
1. Legs together and extended perpendicular to the surface.		1. Full extension of the legs at a 90° angle to the surface.
2. Head in line with the trunk.		2. Chest close to the surface with the shoulders back. Ear, hip and shoulder joint aligned, with the spine straight and extended.
3. Face at the surface.		
b) Submerged		
1. Trunk and head parallel to the surface.		1. Ear, shoulder and hip joint aligned.
2. 90° angle between the trunk and the extended legs.		2. Legs perpendicular to the surface.
3. Water level between knees and ankles of the extended legs.		

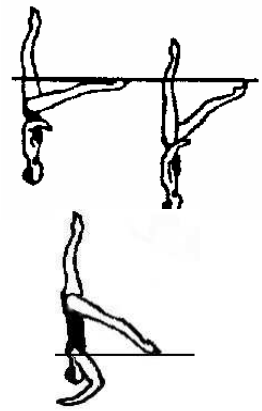
BP 6 Vertical Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body extended, perpendicular to the surface, legs together, head downward.		1. Full extension of the body.
2. Head (ears specifically), hips and ankles in line.		2. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, ankle.

BP 7 Crane Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body extended in **Vertical Position**, with one leg extended forward at a 90° angle to the body.		1. Refer to BP 6 **Vertical Position** re body alignment. Forward extended leg must be parallel to the surface. Hip joints must be on a horizontal line.

BP 8 Fishtail Position

Rule Book Description	Diagrams	Major Desired Actions
1. Same as **Crane Position**, except that the foot of the forward leg is at the surface, regardless of the height of the hips.		1. See BP 6 **Vertical Position** re body alignment. The foot of the forward leg must be at the surface. Hip joints must be on a horizontal line.

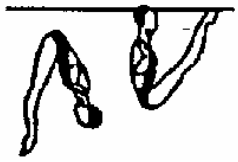
BP 9 Tuck Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body as compact as possible, with the back rounded and the legs together.		1. Legs folded tightly to the front of the body.
2. Heels close to buttocks.		2. Compact tuck. Heels as close to buttocks as possible.
3. Head close to knees.		3. Chin tucked in; ears in natural alignment with the curvature of the spine.

BP 10 Front Pike Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body bent at hips to form a 90° angle.		1. Exactness of 90° angle.
2. Legs extended and together.		2. Full extension of legs, with ankle aligned with hip joint.
3. Trunk extended with the back straight and head in line.		3. Back flat, with vertical alignment of ear, shoulder joint, middle of side of trunk, and hip joint. Once position is established.

BP 11 Back Pike Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body bent at hips to form an acute angle of 45° or less.		1. Legs as close to chest as possible, without sacrificing the straight line alignment of the extended spine and head.
2. Legs extended and together.		2. Full extension of the legs, ankles and feet.
3. Trunk extended with the back straight and head in line.		3. Back flat, with ear, shoulder joint, middle of side of torso, and hip joint aligned. Once position is established the degree of the angle remains constant.

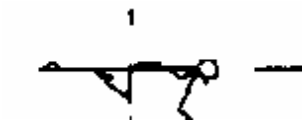
BP 12 Dolphin Arch Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body arched so that the head, hips and feet conform to the arc being followed.		1. The body arc must be uniform from the head through the feet.
2. Legs together.		

BP 13 Surface Arch Position

Rule Book Description	Diagrams	Major Desired Actions
1. Lower back arched, with hips, shoulders and head on a vertical line.		1. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to one another. Head (ears specifically) in line with shoulders.
2. Legs together and at the surface.		2. Hips as close to the surface as possible.

BP 14 Bent Knee Positions

Rule Book Description	Diagrams	Major Desired Actions
1.Body in **Front Layout**, **Back Layout**, **Vertical**, or **Arched Positions**.		1. See BP 2, BP 1, BP 6, BP 12 and BP 13.
2. One leg bent, with the toe of the bent leg in contact with the inside of the extended leg.		2. The relationship of the toe of the bent leg to extended leg may vary depending on the figure but should remain constant once established, and not extend behind the leg.
a) Bent Knee Front Layout Position		
1. Body extended in **Front Layout Position**, with the toe of the bent leg at the knee or thigh.		1. In BP 2 **Front Layout Position** the alignment points of the extended leg, trunk and head remain the same.
b) Bent Knee Back Layout Position		
1. Body extended in **Back Layout Position**.		1.In BP 1 **Back Layout Position**, Ear, shoulder joint, hip joint and ankle of extended leg as close as possible to horizontal alignment.
2. The thigh of the bent leg is perpendicular to the surface.		2.90˚ angle between the thigh and surface, and as close as possible to 90˚ between the thigh and trunk. At maximum height, a large air pocket will be evident between the backs of the thigh and calf of the bent knee, and the surface of the water.

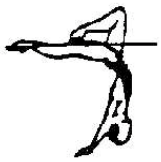
c) Bent Knee Vertical Position

1. Body extended in **Vertical Position**, with the toe of the bent leg at the knee or thigh.

1. In BP 6 **Vertical Position** the alignment points of the extended leg, trunk and head remain the same.

d) Bent Knee Surface Arch Position

1. Body arched in **Surface Arch Position**.



1. See BP 13 **Surface Arch Position**.

2. The thigh of the bent leg is perpendicular to the surface.

2. An air pocket beneath the bent knee is also desirable.

e) Bent Knee Dolphin Arch Position

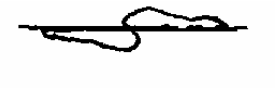
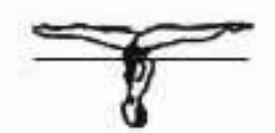
1. Body arched in **Dolphin Arch Position**, with the toe of the bent leg at the knee or thigh.

1. See BP 12 **Dolphin Arch Position**.

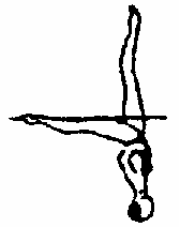
BP 15 Tub Position

Rule Book Description	Diagrams	Major Desired Actions
1. Legs bent and together, feet and knees at and parallel to the surface, thighs perpendicular.		1. Knee and hip joints aligned vertically. Legs "dry" from toes to knees.
2. Head in line with trunk.		2. Chest close to the surface, with the shoulders back. Ear, shoulder and hip joint aligned, with the spine extended.
3. Face at the surface.		

BP 16 Split Position

Rule Book Description	Diagrams	Major Desired Actions
1. Legs evenly split forward and back.		1. Full extension of the legs at or above the surface.
2. The legs are parallel to the surface.		
3. Lower back arched, with hips, shoulders and head on a vertical line.		
4. 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips.		4. Flat split. Hips joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to each other.
a) Split Position		
1. Legs are "dry" at the surface.		1. Full extension of the legs at the surface. Feet and thighs at the surface. Hips as close to the surface as possible.
b) Airborne Split Position		
1. Legs are above the surface.		1. Full extension of the legs completely above the surface. Maximum height is desirable.

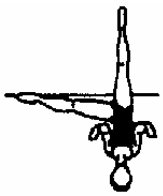
BP 17 Knight Position

Rule Book Description	Diagrams	Major Desired Actions
1. Lower back arched, with hips, shoulders and head on a vertical line.		1. Arch is in the lower part of the spine only.
2. One leg vertical.		2. Vertical alignment through ear, shoulder joint, hip joint and ankle.
3. Other leg extended backward, with the foot at the surface, and as close to horizontal as possible.		3. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to each other. The top of the extended leg faces upward.

BP 18 Knight Variant Position

Rule Book Description	Diagrams	Major Desired Actions
1. Lower back arched, with hips, shoulders and head on a vertical line.		1. Arch is in the lower part of the spine only.
2. One leg vertical.		2. Vertical alignment through ear, shoulder joint, hip joint and ankle.
3. The other leg is behind the body with the knee bent at an angle of 90° or less.		3. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to each other.
4. The thigh and shin are parallel to the surface of the water.		4. The inside of the bent leg faces upward and is at or near the surface.

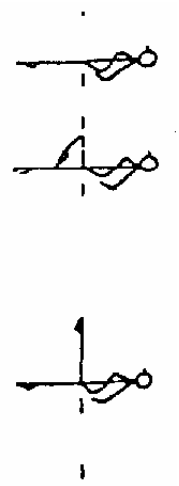
BP 19 Side Fishtail Position

Rule Book Description	Diagrams	Major Desired Actions
1. Body extended in **Vertical Position**, with one leg extended sideways with its foot at the surface regardless of the height of the hips.		1. BP 6 **Vertical Position** alignment must be evident from a front or back view of the extended body. The front of the extended leg faces forward.

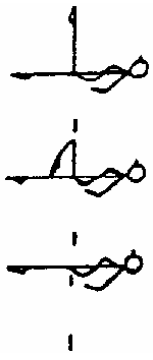
4. ANALYSIS OF BASIC MOVEMENTS

FINA Handbook APPENDIX III - Basic Movements

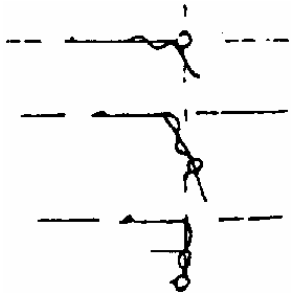
BM 1 *To Assume a Ballet Leg*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. Begin in a **Back Layout Position.** One leg remains at the surface throughout.			1. See BP 1 **Back Layout Position.**
2. The foot of the other leg is drawn along the inside of the extended leg to assume a **Bent Knee Back Layout Position.**	**10.5**		2. See BP 14b **Bent Knee Back Layout Position.** The toe of the bending leg maintains in contact with the inside of the extended leg. Minimal drop in hips. Position held only long enough to demonstrate control and accuracy.
3. The knee is straightened, without movement of the thigh, to assume a **Ballet Leg Position.**	**11.0**		3. See BP 3a **Surface Ballet Leg Position**. Water line remains constant. Timing of lift same as that of draw to the bent knee position.

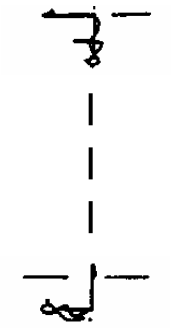
BM 2 *To Lower a Ballet Leg*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Ballet Leg Position,** the ballet leg is bent, without movement of the thigh, to a **Bent Knee Back Layout Position**.	**11.0**		1. Timing and water line on the thigh remain the same as in *To Assume a Ballet Leg*.
2. The toe moves along the inside of the extended leg until a **Back Layout Position** is assumed.	**10.5**		2. Full extension and height in BP 1 **Back Layout Position** to be reached as the feet are joined.

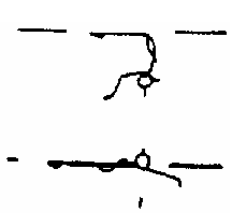
BM 3 *To Assume a Front Pike Position*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position** as the trunk moves downward to assume a **Front Pike Position**, the buttocks, legs and feet travel along the surface until the hips occupy the position of the head at the beginning of this action.	**12.0**		1.1 See BP 2 **Front Layout Position and** BP 10 **Front Pike Position**. Smooth, even movement downward of trunk. Trunk remains straight throughout the movement. Hips and head lock into position simultaneously. 1.2 Unless otherwise specified, *To Assume a Front Pike Position* starts from a **Front Layout Position**.

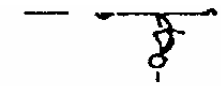
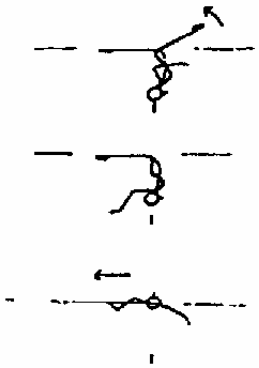
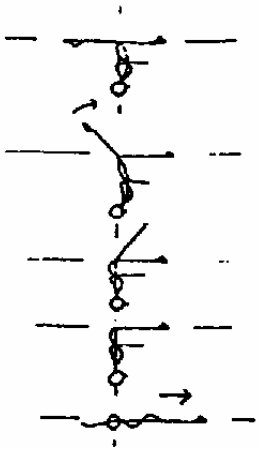
BM 4 *A Front Pike Position to Assume a Submerged Ballet Leg Double Position*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Pike Position**, maintaining this position, the body somersaults forward around a lateral axis so that the hips replace the head at the one quarter point to assume a **Submerged Ballet Leg Double Position.** 2. The buttocks, legs and feet travel [move] downward until the hips occupy the position of the head at the beginning of this action.	**12.0**		1. See BP 10 **Front Pike and** BP 5b **Submerged Ballet Leg Double Position.** 90° angle maintained throughout rotation. 2. Body alignment, extension and uniform speed of movement maintained.

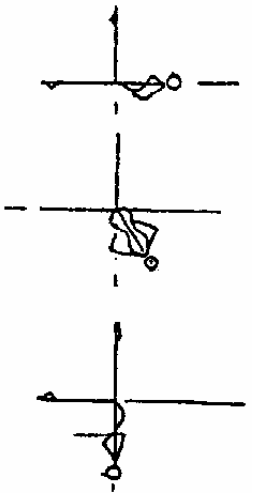
BM 5 *Arch to Back Layout Finish Action*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Surface Arch Position**, the hips, chest and face surface sequentially at the same point, with foot first movement to a **Back Layout Position**, until the head occupies the position of the hips at the beginning of this action.	**11.0**		1. See BP 13 **Surface Arch Position**. Sharp arch in lower back. The body straightens, rises and moves along the surface simultaneously, with a stationary BP 1 **Back Layout Position** achieved as the face surfaces. Full body extension maintained throughout.

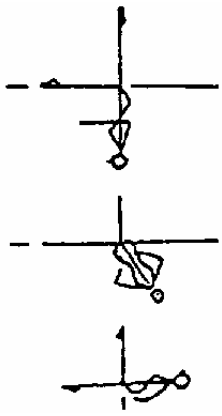
BM 6 *Walkouts*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. These movements start in a **Split Position** unless otherwise specified in the figure description. The hips remain stationary as one leg is lifted in an arc over the surface to meet the opposite leg.			1. See BP 16a **Split Position.**
a) *Walkout Front*			
2. The front leg is lifted in a 180˚ arc over the surface to meet the opposite leg in a **Surface Arch Position** and with continuous movement, an *Arch to Back Layout Finish Action* is executed.	**24.0** **11.0**		2.1 Hip height remains constant and as close to the surface as possible. 2.2 Arcing leg moves continuously at an even tempo. 2.3 Both legs maintain full extension. 2.4 Trunk maintains same position until the feet join. 2.5 An accurate BP 13 **Surface Arch Position** should be evident before the body begins to rise and straighten. 2.6 Foot first surfacing motion begins when the feet are joined. 2.7 See BP 13 **Surface Arch Position** and BM 5 *Arch to Back Layout Finish Action.*
b) *Walkout Back*			
3. The back leg is lifted in a 180˚ arc over the surface to meet the opposite leg in a **Front Pike Position** and with continuous movement, the body straightens to a **Front Layout Position**.	**18.0** **9.0**		3.1 Same as 2.1-2.4 in BM6a *Walkout Front.* 3.2 An accurate BP 10 **Front Pike Position** should be evident before the body begins to straighten and rise. See BP 10 **Front Pike** and BP 2 **Front Layout Position.**
4. The head surfaces at the position occupied by the hips at the beginning of this action.			4. Body straightens, rises and moves along the surface simultaneously, with a stationary BP 2 **Front Layout Position** achieved as the head surfaces.

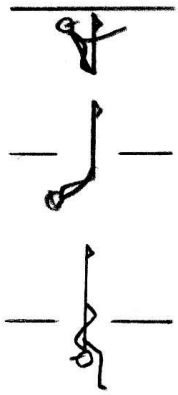
BM 7 *Catalina Rotation*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Ballet Leg Position**, a rotation of the body is initiated.	**24.0**		1. See BP 3 **Ballet Leg Positions.**
2. The head, shoulders and trunk begin the rotation at the surface while descending without lateral movement to a **Crane Position**.			2.1 Rotation begins not later than when the nose goes beneath the surface of the water. 2.2 Simultaneous rotation and descent of the trunk. At the halfway point, the body is in a tilted 'Y' position, with the trunk at a 45˚ angle to the surface, and the front of the trunk and legs facing forward. 2.3 Height and tempo constant throughout. 2.4 See BP 7 **Crane Position**.
3. The angle between the legs remains 90°throughout the rotation. Unless otherwise specified, *Catalina Rotation* starts from a **Ballet Leg Position**.			3. Each leg rotates around its respective horizontal or vertical axis, simultaneous with each other and the rotation of the descending trunk.

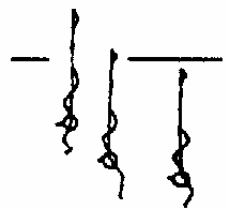
BM 8 *Catalina Reverse Rotation*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Crane Position**, the hips rotate as the trunk rises, without lateral movement, to assume a **Ballet Leg Position.**	**24.0**		1.1 See BP 7 **Crane** and BP 3 **Ballet Leg Positions.** 1.2 Same as 2.3 in BM 7 *Catalina Rotation.* 1.3 The body rotates and rises simultaneously, with the transition being completed as the face surfaces and the body locks into BP 3 **Ballet Leg Position.** At the halfway point, the body is in a tilted 'Y' position, with the trunk at a 45˚ angle to the surface and the front of the trunk and legs facing forward.
2. The angle between the legs remains 90°throughout the rotation.			2. Each leg rotates around its respective horizontal or vertical axis, simultaneous with each other and the rotation of the ascending trunk.

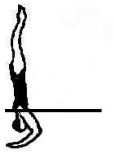
BM 9 *Thrust*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a Submerged **Back Pike Position**, with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position**.	**37.0**		1.1 See BP 11 **Back Pike Position**. The toes just below the surface are desired. Once established, the degree of the angle should not change prior to initiation of the unrolling action. 1.2 See BP 6 **Vertical Position.** The body unrolls under the legs to assume BP 6 **Vertical Position** along the same perpendicular line established by the legs in the BP 11 **Back Pike Position.** 1.3 Obvious increase in speed of action must be evident.
2. Maximum height desirable.			2. Maximum height and BP 6 **Vertical Position** achieved simultaneously.

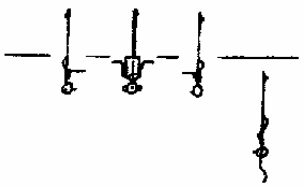
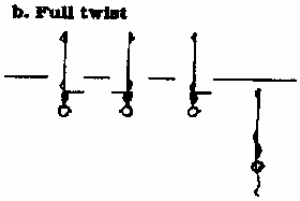
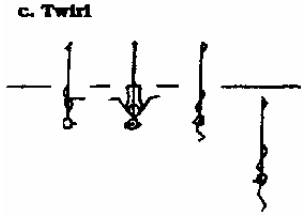
BM 10 *Vertical Descent*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. Maintaining a **Vertical Position**, the body descends along its longitudinal axis until the toes are submerged.	**14.0**		1. See BP 6 **Vertical Position**. Unless otherwise stated, tempo of descent is uniform and at the same speed as the rest of the figure.

BM 11 *Rocket Split*

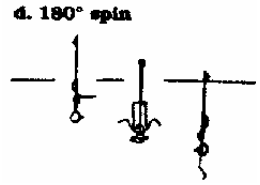
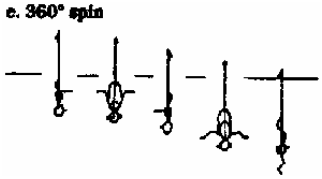
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *thrust* is executed to a **Vertical Position**, maintaining maximum height the legs are split rapidly to assume an **Airborne Split Position** and rejoin to a **Vertical Position**, followed by a *Vertical Descent*.	**37.0**		1.1 See BM 9 *Thrust* (steps 1.1 to 2), BP 11 **Back Pike Position**, BP 6 **Vertical Position**, BP16b **Airborne Split Position**.
	19.0		1.2 The toes just below the surface.
	16.0		1.3 Full extension of the legs above and parallel to the surface.
			
2. The *Vertical Descent* is executed at the same tempo as a *Thrust*.	**14.0**		2. See BM 10 *Vertical Descent*.

BM 12 *Twists*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Twist* is a rotation at a sustained height.			1. Water line remains constant during rotation. Stability and alignment of position evident before, during and upon completion of *Twist.* Amount of height is judged by the relationship of the hip joint to the surface of the water, with credit given to maximum height.
2. The body remains on its longitudinal axis throughout the rotation.			2. The longitudinal axis runs through the centre of the body and is perpendicular to the surface of the water. On-the- spot rotation around this axis.
3. Unless otherwise stated, when performed in a **Vertical Position**, a *Twist* is completed with a *Vertical Descent.*			3. See BM 10 *Vertical Descent*. Speed of descent same as that of the root figure.
4. **a) *Half Twist* :** a *Twist* of 180°.	**19.0** **14.0**	a. Half twist 	4. a) and b) Rotation must be precisely 180˚ or 360˚.
b) *Full Twist* : a *Twist* of 360°.	**29.0** **14.0**	b. Full twist 	
C) A ***Twirl*** : a rapid *Twist* of 180°.	**23.0** **14.0**	c. Twirl 	4. c) Definite increase in speed. Stability of body alignment and water line during and after completion of *Twirl*.

NOTE: When a *Twist* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Twist* as defined in the FINA Handbook. eg. A *Half Twist* is performed instead of a *Full Twist.*

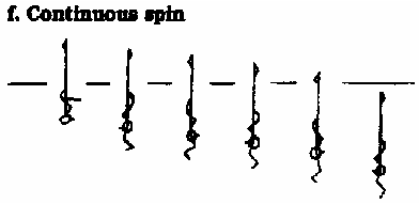
BM 13 *Spins*

Rule Book Description	**NV**	Diagrams	Major Desired Actions
1. A *Spin* is a rotation in a **Vertical Position**.			1. See BP 6 **Vertical Position**. Height and locked position attained before the *spin* begins.
2. The body remains on its longitudinal axis throughout the rotation.			2. The longitudinal axis runs through the centre of the body and is perpendicular to the surface of the water.
3. Unless otherwise stated, *Spins* are executed in a uniform motion.			3. Uniform motion to be at the same tempo as the rest of the figure, unless otherwise stated.
4. A *descending Spin* must start at the height of the vertical and be completed as the heel(s) reach(es) the surface.			4.1 Stability and vertical alignment before, during and at completion of the designated rotation. 4.2 Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. 4.3 Amount of rotation on 180˚ and 360˚ *Spins* must be exact.
d) 180° *Spin* : a *descending Spin* with a rotation of 180˚.	**17.0** (stable) **19.0** (unstable)		
e) 360° *Spin* : a *descending Spin* with a rotation of 360˚.	**19.0** (stable) **21.0** (unstable)		

f) *Continuous Spin* : a *descending Spin* with a rapid rotation of: 720˚ (2), 1080˚ (3), or 1440˚ (4) which is completed as the heels reach the surface and continues through submergence.

27.0
27.5
28.0

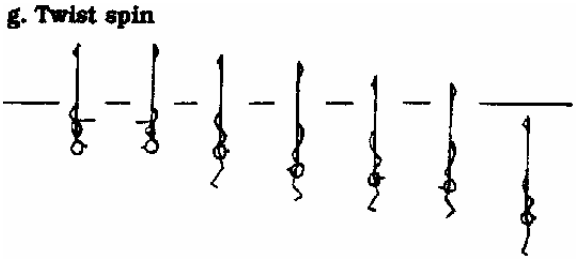
4. f) A *Continuous Spin* must achieve and maintain a fast rotation throughout.



g) *Twist Spin* : a *Half Twist* is executed, and without a pause, is followed by a *Continuous Spin* of 720˚ (2).

19.0 + 27.0 =46.0

4. g) In a *Twist Spin*, the BM 12a *Half Twist* is performed at the same tempo as the root figure. BM 12a *Half Twist* and BM13 f *Continuous Spin*.



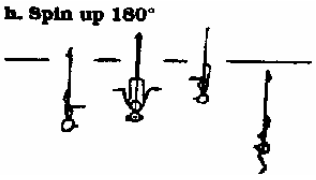
5. Unless otherwise specified, a *descending Spin* is finished with a *Vertical Descent* which is executed at the same tempo as the *Spin.*

6. An *ascending Spin* begins with the water level at the heels unless otherwise specified. A vertical upward *Spin* is executed until a water level is established between the knees and hips. An *ascending Spin* is finished with a *Vertical Descent*.

6.1 Body rises and rotates simultaneously, evenly and at the same tempo as the root figure, unless otherwise specified.
6.2 Designated rotation is completed simultaneously with achievement of maximum height.
6.3 Stability and vertical alignment maintained before, during and at completion of the designated rotation.
6.4 Amount of rotation on 180˚ and 360˚ *Spins* must be exact, with stability and control of BM 6 **Vertical Position** evident prior to *Vertical Descent*. Speed of descent same as that specified for root figure.

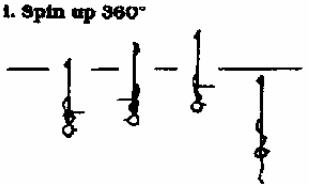
h) *Spin Up 180°* : an *ascending Spin* with a rotation of 180˚.

19.0
14.0



i) *Spin Up 360°* : an *ascending Spin* with a rotation of 360˚.

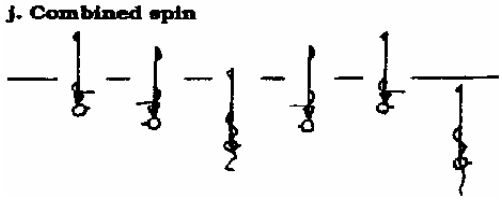
20.0
14.0



j) *Combined Spin* : a *descending Spin* of at least 360˚, followed without a pause by an equal *ascending Spin* in the same direction. The *ascending Spin* reaches the same height where the *descending Spin* started.

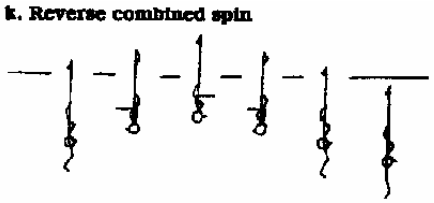
39.0
14.0

6. j) and k) - See requirements for *ascending* and *descending spins*, with uniform motion at the tempo specified in the figure description. j) – Heights of beginning of a *Descending Spin* and finish of a *Ascending Spin* are the same.



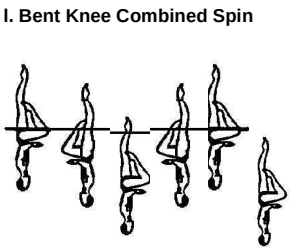
k) *Reverse Combined Spin* **:** an *ascending Spin* of at least 360˚, followed without a pause by an equal *descending Spin* in the same direction.

39.0



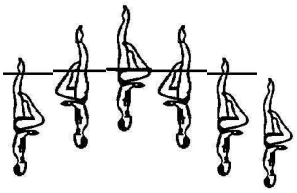
l) *Bent Knee Combined Spin* : a *descending Spin* in a **Bent Knee Vertical Position** of at least 360˚, followed without a pause by an equal *ascending Spin* in the same direction. The *ascending Spin* reaches the same height where the *descending Spin* started.

31.5
10.0



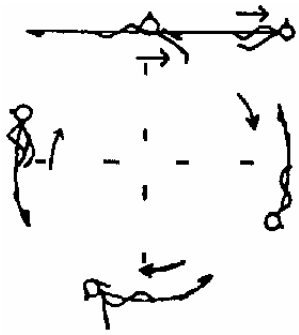
m) *Reverse Bent Knee Combined Spin* : an *ascending Spin* in a **Bent Knee Vertical Position** of at least 360˚, followed without a pause by an equal *descending Spin* in the same direction.

31.51
0.0



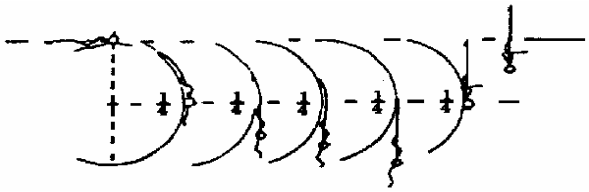
NOTE: When a *Spin* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Spin* as defined in the FINA Handbook. eg. A *360°Spin* instead of a *180° Spin.*

BM 14 *Dolphin*

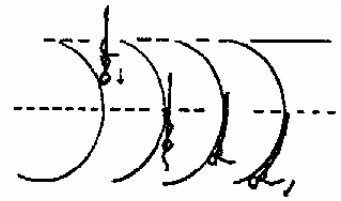
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Dolphin* (and all its modifications) is started in a **Back Layout Position.**			1. See BP 1 **Back Layout Position**.
2. The body follows the circumference of a circle which has a diameter of approximately 2.5 metres, depending on the height of the swimmer.			2. The size of the circle should be in proportion to the height of the swimmer.
3. The head, hips and feet leave the surface sequentially to assume a **Dolphin Arch** as the body moves around the circle with the head, hips and feet following the imaginary line of the circumference.	**8.0 + 8.0 + 8.0 + 8.0 (8.0 for each 1/4 circle)**		3. Head, hips and feet leave the surface through the same point, with BP 12 **Dolphin Arch Position** achieved as the head reaches the 1/4 point of the circle. An accurate tracing of a circle will have the body pass through the 1/4, 1/2 and 3/4 points, with each quarter being the same size and shape.
4. Movement continues until the body straightens as it surfaces to a **Back Layout Position**, with the head, hips and feet breaking surface at the same point.			4. Body rises, straightens and moves along the surface simultaneously, with a stationary BP 1 **Back Layout Position** achieved as the feet surface where the head emerged.

BM 15 *Dolphin to Vertical*

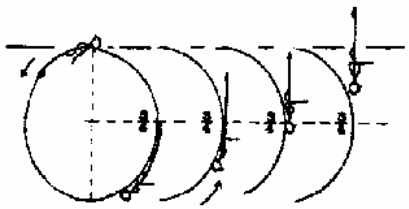
Rule Book Description	NV	Diagrams	Major Desired Actions
1. The head reaches the quarter point of the circle, and with continuous motion, the body straightens as it continues downward to assume **Vertical Position.**	**8.0 + 8.0**		1. Without hesitation, the head leads the body parts sequentially off the circle. See BP 6 **Vertical Position.**
2. The toes arrive at the quarter point of the circle as they reach the vertical line.			2. Downward motion stops when the body arrives at vertical.
3. Maintaining a Vertical Position, the body ascends along its longitudinal axis until a water level is established between the ankles and hips.	**14.0**		3. Upward motion ceases as the body reaches a level at which the achieved vertical height can be controlled.



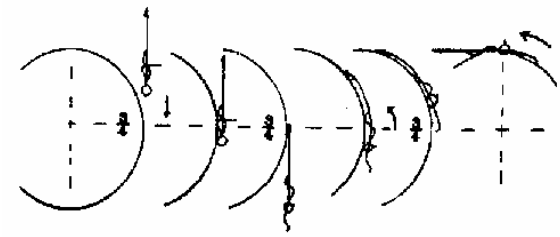
BM 16 *Vertical Descent to Dolphin Circle*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Vertical Descent* is executed until the hips reach the quarter point of the circle, and with continuous motion, the head leads the body back onto the circumference of a circle into a **Dolphin Arch** and the *Dolphin* continues.	**14.0**		1. See BM 10*Vertical Descent.* Without hesitation, the head leads the body parts sequentially back onto a circle, with a BP 12 **Dolphin Arch Position** being achieved as the feet reach the quarter point of the circle.

BM 17 *Dolphin Foot First to Vertical*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. The toes reach the three quarter point of the circle, and with continuous motion, the body straightens to **Vertical Position** as it rises along its longitudinal axis until a water line is established between the ankles and hips.	**14.0**		1. Without hesitation, the feet lead the body parts sequentially off the circle. See BP 6 **Vertical Position**. Upward motion stops as the body reaches a level at which its vertical height can be controlled.

BM 18 *Vertical Descent to Dolphin Foot First Circle*

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Vertical Descent* is executed until the toes reach the three quarter point of the circle.	**14.0**		1. See BM 10 *Vertical Descent*.
2. The toes lead the body back onto the circumference of the circle into a **Dolphin Arch** as the *Dolphin* Foot First continues.	**8.0**		2. The feet lead the body parts sequentially back onto the circle, with a BP 12 **Dolphin Arch Position** being achieved as the head reaches the 3/4 point of the circle.

5. ANALYSIS OF FINA FIGURES

5.1. FINA Handbook APPENDIX IV – CATEGORY I

Figure 101 – Ballet Leg Single **Difficulty – 1.6**

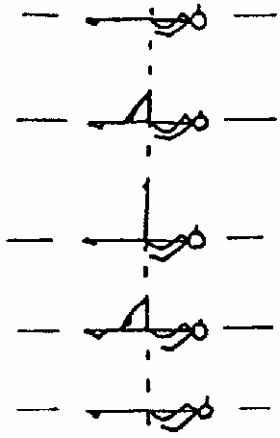
Rule Book Description	NV	Diagrams	Major Desired Actions
1. *A Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1 *TO ASSUME A BALLET LEG.*
2. *The Ballet Leg is lowered.*	**11.0** **10.5**		2. See BM 2 *TO LOWER A BALLET LEG*.

Figure 102 – Ballet Leg Alternate **Difficulty – 2.4**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. Use each leg alternately.	**10.5** **11.0** **11.0** **10.5** **10.5** **11.0** **11.0** **10.5**		1. Same as Figure 101 Ballet Leg Single. Both legs should have the same height and timing during their execution. Pause in BP 1 **Back Layout Position** between each Ballet Leg only long enough to define the position and completion of transition.

Figure 103 – Submarine Ballet Leg Single **Difficulty – 2.1**

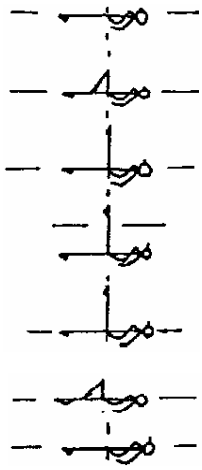
Rule Book Description	NV	Diagrams	Major Desired Actions
1. *A Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1 *TO ASSUME A BALLET LEG*.
2. The body is lowered to a **Submerged Ballet Leg Position.**	**12.5**		2. See BP 3b **Submerged Ballet Leg**. Smooth initiation of drop. Non-ballet leg and body extended parallel to the surface.
3. Maintaining this position parallel to the surface, the body rises vertically to a **Surface Ballet Leg Position.**	**10.5**		3. Equal timing of submergence and rise. Face and foot of the horizontal leg reach surface at the same time. Body maintains **Ballet Leg Position** (see BP 3a) through submergence and rise.
4. The *Ballet Leg is lowered.*	**11.0** **10.5**		4. See BM 2.

Figure 104 – Ballet Leg Roll Single **Difficulty – 2.7**

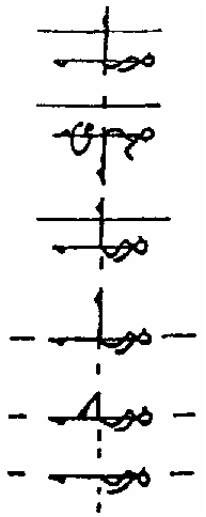
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Submarine Ballet Leg Single is executed to a **Submerged Ballet Leg Position**.	**10.5** **11.0** **12.5**		1. Same as Figure 103 Submarine Ballet Leg Single, steps 1 & 2.
2. Maintaining this position parallel to the surface, the body rotates sideways toward the horizontal leg for 360˚ to return to its original submerged position.	**18.0** **18.0** **10.5**		2. Ballet leg maintains 90° angles to the trunk and horizontal leg. Body depth and tempo of rotation constant, with water line on ballet leg same at beginning and end of roll.
3. The figure is completed as in Submarine Ballet Leg Single.	**11.0** **10.5**		3. Same as Figure 103 Submarine Ballet Leg Single, steps 3 & 4.

Figure 110 – Ballet Leg Double **Difficulty – 1.7**

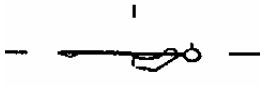
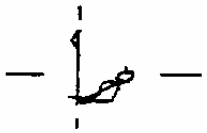
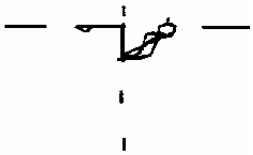
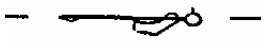
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position,** the knees are drawn toward the chest, with toes at the surface assume a **Tub Position.**	**4.0**		1. See BP 1 **Back Layout Position**. The trunk does not move toward the legs as **Tub Position** (BP 15) is assumed.
2. The knees are straightened to assume a **Surface Ballet Leg Double Position.**	**19.0**		2. During the extension of the legs, the thighs remain perpendicular to the surface, and the water line is constant. See BP 5a **Surface Ballet Leg Double Position.** This position is maintained only long enough to demonstrate accuracy and stability.
3. Without movement of the thighs, the legs are returned to **Tub Position.**	**19.0**		3. Water level and timing remain constant throughout the lifting and lowering actions.
4. The knees are straightened to resume a **Back Layout Position**.	**4.0**		4. Full extension and maximum height in BP 1 **Back Layout** to be achieved simultaneously.

Figure 111 – Submarine Ballet Leg Double **Difficulty – 2.3**

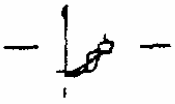
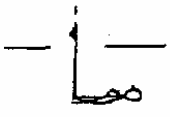
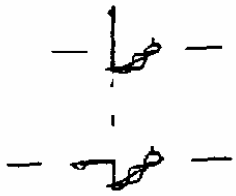
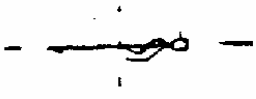
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Ballet Leg Double is executed to a **Surface Ballet Leg Double Position.**	**4.0** **19.0**		1. Same as Figure 110 Ballet Leg Double, steps 1 & 2.
2. The body submerges vertically to a **Submerged Ballet Leg Double Position.**	**15.0**		2. Smooth initiation of the drop. Submerging and rising occur along the vertical line established by the legs. See BP 5b **Submerged Ballet Leg Double Position**.
3. The body rises vertically to a **Surface Ballet Leg Double Position.**	**19.0**		3. Water level on surfacing same as prior to submerging. Stability and control of height evident before the legs are lowered.
4. The figure is completed as in Ballet Leg Double.	**19.0** **4.0**		4. Same as Figure 110 Ballet Leg Double, steps 3 & 4.

Figure 112 – Ibis **Difficulty – 2.3**

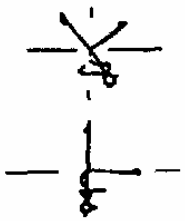
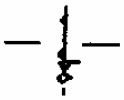
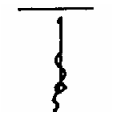
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1.
2. Maintaining this position the body is rotated backward around a lateral axis through the hips to assume a **Crane Position.**	**26.0**		2. Simultaneous lift of leg and descent of the trunk, with foot of non-ballet leg coming off surface as head goes under. 90° angles maintained between ballet leg and rest of body. Height constant with hips as pivot point. Head and feet reach **Crane Position** (BP 7) simultaneously.
3. The horizontal leg is lifted to a **Vertical Position**.	**18.5**		3. See BP 6 **Vertical Position**. Height constant as legs join, trunk and vertical with the leg maintaining their vertical alignment. Stability in BP 6 **Vertical Position** evident prior to descent.
4. *A Vertical Descent is executed.*	**14.0**		4. See BM 10.

Figure 112 a-j – Ibis Twists and Spins - See FINA Handbook APPENDIX I

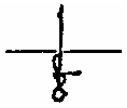
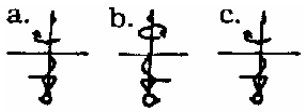
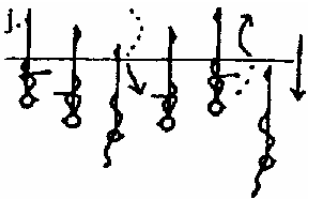
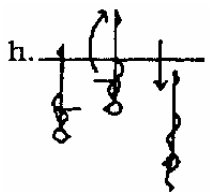
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Ibis is executed to **Vertical Position.**	**10.5** **11.0** **26.0**		1. Same as Figure 112 Ibis, steps 1 to 3.
2a. **Figures 112 a-c Ibis Twists** The designated *Twist* is performed to complete the figure.			2a. See BM10 *Twists.*
a. 19.0 + 14.0 **b. 29.0 + 14.0** **c. 23.0 + 14.0**			a. *Half Twist* b. *Full Twist* c. *Twirl*
2b. **Figures 112d-g plus j Ibis Spins** The designated *Spin* is performed to complete the figure.			2b. See BM 11 *Spins.*
d. 17.0 **e. 19.0** **f. 27.0** **g. 19.0 + 27.0** **j. 39.0 + 14.0**			d. *180° Spin* e. *360° Spin* f. *Continuous Spin* g. *Twist Spin* j. *Combined Spin*
2c. **Figures 112h-i Ibis Spin Ups** - A *Vertical Descent* is executed to heel level. - The designated *Spin* is performed to complete the figure.	**14.0**		2c. See BM 10 and BM 13
h. 19.0 + 14.0 **i. 20.0 + 14.0**			h. *Spin Up 180°* i. *Spin Up 360°*

Figure 113 – Crane **Difficulty – 3.5**

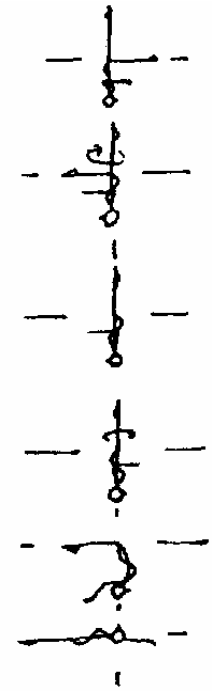
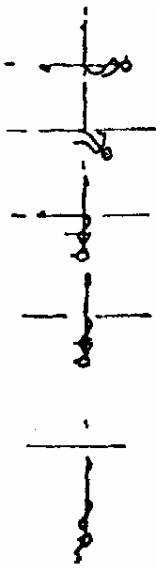
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Ibis is executed to a **Crane Position.**	**10.5** **11.0** **26.0**		1. Same as Fig. 112 Ibis, steps 1-2 Simultaneous establishment of **Crane Position** and water level.
2. A *Half Twist* is executed.	**15.0**		2. See BM12.
3. The horizontal leg is lifted to **Vertical Position.**	**18.5**		3. Height constant as legs join, with trunk and vertical leg maintaining vertical alignment. Stability in **Vertical Position** (BP 6) evident prior to *twist*.
4. Another *half twist* is executed in the same direction and at the same height.	**19.0**		4. Both *twists* rotate around the same longitudinal axis.
5. The legs are lowered backward to a **Surface Arch Position**, and with continuous movement, an *Arch to Back Layout* is executed.	**33.0** **11.0**		5. Simultaneous lowering of legs and arching of back. No pause in **Surface Arch Position** (BP13) However, an accurate **Surface Arch** must be seen before the body begins to straighten. See BM 5.

Figure 115 – Catalina **Difficulty – 2.3**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1.
2. A *Catalina Rotation* is executed.	**24.0**		2. See BM 7.
3. The horizontal leg is lifted to **Vertical Position**.	**18.5**		3. Height constant as legs join, with the trunk and vertical leg maintaining their vertical alignment. Stability in **Vertical Position** (BP 6) evident prior to descent.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

NOTE: This figure may be executed with any of the spins or twists added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins*.

Figure 116 – Catalarc **Difficulty – 3.1**

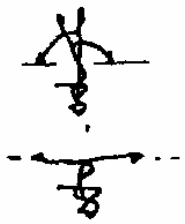
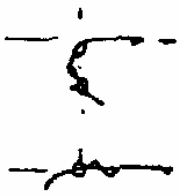
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Catalina is executed to a **Crane Position.**	**10.5** **11.0** **24.0**		1. Same as Figure 115 Catalina, steps 1 & 2.
1 The horizontal leg is lifted in a 180˚ arc over the surface. As it passes the vertical leg, the vertical leg starts to move symmetrically in the opposite direction, and the legs reach a **Split Position** at the same time.	**18.5** **+** **19.0**		2. Height maintained on lift and pass through. Arcing leg moves continuously at a uniform speed with no pause as the legs meet prior to their lowering action. From vertical to **Split Position** [BP 16a] both legs are always equidistant from the water and reach the surface at the same time. Tempo of leg raise to vertical is same as the lowering to **Split Position.**
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 117 – Catalarc Open 180° **Difficulty – 3.2**

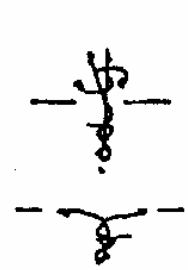
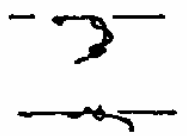
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Catalina is executed to a **Crane Position.**	**10.5** **11.0** **24.0**		1. Same as Figure 115 Catalina, steps 1 & 2.
2. The horizontal leg is lifted in a 180°arc over the surface. As it passes the vertical leg, the vertical leg starts to move symmetrically in the opposite direction, and the legs reach a **Split Position** at the same time.	**18.5** **+** **21.0**		2. Water level established in BP 7 **Crane Position** is maintained as the horizontal leg lifts to vertical. No pause as legs meet prior to lowering action. Legs split equally and continuously during the 180˚ turn. Maximum height and completion of 180°rotation are achieved simultaneously as BP 16a **Split Position** is assumed. The lifted leg has to be lowered backward.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 118 – Helicopter **Difficulty – 2.5**

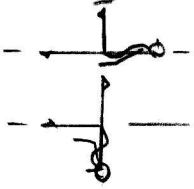
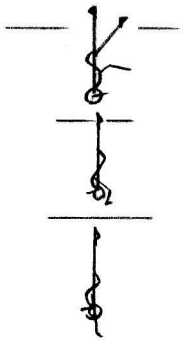
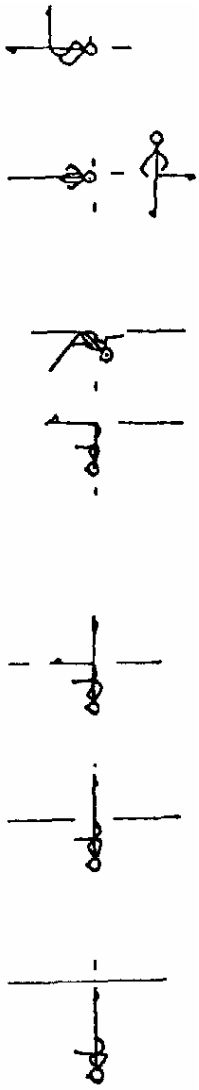
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1.
2. A *Catalina Rotation* is executed to a **Crane Position**.	**24.0**		2. See BM 7.
3. Continuing in the same direction, the horizontal leg is lifted to a **Vertical Position** as a *360° Spin* is executed.	**36.0**		3. See BM 13e *360 Spin*. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. The horizontal leg lifts to vertical continuously at a uniform speed with the trunk and vertical leg maintaining their alignment.

Figure 125 – Eiffel Tower **Difficulty – 2.8**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1.
2. Maintaining this position, the body rolls sideways toward the horizontal leg, carrying the ballet leg to the surface.	**18.5**		2. Ear, hip and ankle of non- ballet leg aligned in a side ballet leg 'T' position, with 90° angles between the ballet leg and horizontal body.
3. The trunk moves downward, turning to *assume a Front Pike Position* as the ballet leg moves across the surface to meet the non-ballet leg.	**16.0**		3. See BM 3. Downward movement to BP 10 **Front Pike Position** begins from the 'T' position of the side ballet leg. The body turn, trunk descent, leg join and hip movement along the surface occur simultaneously, with the transition completed as the legs join. Hips replace head at the surface. No deviation from the lateral axis is allowed.
4. The non-ballet leg is lifted to a **Crane Position**.	**13.5**		4. See BP 7 **Crane Position**. 90° angle between trunk and horizontal leg remains constant. The hip-joints have to be on a horizontal line.
5. The ballet leg is lifted to a **Vertical Position**.	**18.5**		5. See BP 6 **Vertical Position**. Constant height as legs join, with the trunk and vertical leg maintaining their vertical alignment. Stability in BP6 **Vertical Position** prior to descent.
6. A *Vertical Descent* is executed.	**14.0**		6. See BM 10.

NOTE: With the exception of *Combined Spin,* this figure may be executed with any of the spins or twists added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins*.

Figure 128 – Eiffel Walk **Difficulty – 2.9**

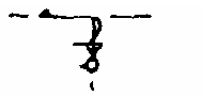
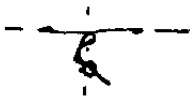
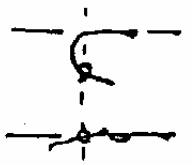
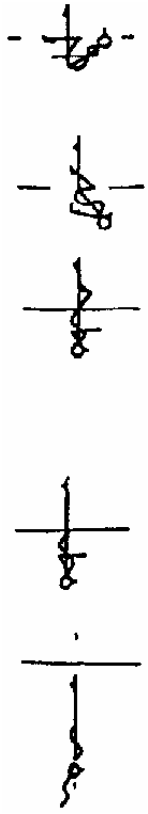
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Eiffel Tower is executed to a **Front Pike Position**.	**10.5** **11.0** **18.5** **16.0**		1. Same as Figure 125 Eiffel Tower, steps 1 to 3.
2. The non-ballet leg is lifted in a 180˚ arc over the surface to assume a **Split Position**.	**21.0**		2. See BP 16a **Split Position**. Trunk position, height and tempo remain constant through arcing action.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 130 – Flamingo **Difficulty – 2.5**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.51** **1.0**		1. See BM 1.
2. The shin of the horizontal leg is drawn along the surface to assume a **Surface Flamingo Position**.	**10.5**		2. See BP 4a **Surface Flamingo Position**. Height of the ballet leg remains constant.
3. The bent leg is straightened to a **Surface Ballet Leg Double Position**.	**16.0**		3. See BP 5a **Surface Ballet Leg Double Position**. No change in height on lift. Position held only long enough to demonstrate control and stability.
4. Maintaining the vertical position of the legs, the hips are lifted as the trunk is unrolled to **Vertical Position**.	**26.0**		4. BP 6 **Vertical Position** assumed under, and in the same plane, as the double ballet legs. Height achieved as hips are lifted must be maintained. Stability and control of height in vertical evident prior to descent.
A *Vertical Descent* is executed.	**14.0**		5. See BM 10.

NOTE: This figure may be executed with any of the twists and spins added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins*.

Figure 140 – Flamingo Bent Knee **Difficulty – 2.4**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Flamingo is executed to a **Surface Flamingo Position**.	**10.5** **11.0** **10.5**		1. Same as Figure 130 Flamingo, steps 1 and 2.
2. With the ballet leg maintaining its vertical position, the hips are lifted as the trunk unrolls while the bent leg moves to a **Bent Knee Vertical Position**.	**22.0**		2. See BP 6 **Vertical** and BP 14 **Bent Knee Positions**. The bent leg moves simultaneously to the **Bent Knee Vertical Position** as the hips are lifted and the trunk unrolls. All actions simultaneously completed as maximum height is achieved. The **Bent Knee Vertical Position** is assumed under and in the same plane as the ballet leg of the BP 4 **Flamingo Position**.
3. The bent knee is extended to **Vertical Position**.	**14.5**		3. No change in height. Vertical alignment maintained during leg join. Stability and control evident prior to descent.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

NOTE: This figure may be executed with any of the twists or spins added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists* and BM 13 *Spins*.

Figure 141 – Stingray **Difficulty – 3.3**

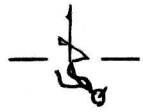
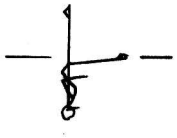
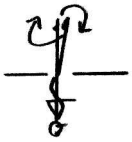
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Flamingo is executed to a **Surface Flamingo Position**.	**10.5** **11.0** **10.5**		1. Same as Figure 130 Flamingo, steps 1 and 2.
2. With the ballet leg maintaining its vertical position, the hips are lifted as the trunk unrolls while the bent leg moves to assume a **Fishtail Position.**	**25.0**	 	2. See BP 8 **Fishtail Position**. The bent leg moves simultaneously to the **Fishtail Position** as the hips are lifted and the trunk unrolls. All actions completed simultaneously as maximum height is achieved. The Fishtail Vertical is assumed under and in the same place as the ballet leg of the BP 4 **Flamingo Position**.
3. The horizontal leg is lifted in an arc over the surface. As it passes the vertical leg which moves symmetrically in the opposite direction, a 180° rotation is started and is completed as a **Split position** is assumed.	**18.5** **+** **21.0**	 	3. Water level established in BP 8 **Fishtail Position** is maintained as the horizontal leg lifts to vertical. No pause as legs meet prior to lowering action. Legs split equally and continuously during the 180° turn. Maximum height and completion of 180° rotation are achieved simultaneously as BP 16a **Split Position** is assumed.
4. A *Walkout Front* is executed.	**24.0** **+** **11.0**	 	4. See BM 6a.

Figure 142 – Manta Ray **Difficulty – 2.8**

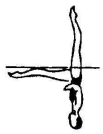
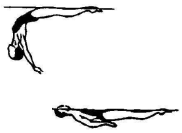
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Flamingo is executed to a **Surface Flamingo Position**.	**10.5** **11.0** **10.5**		1. Same as Figure 130 Flamingo, steps 1 and 2.
2. As the body unrolls, the bent leg is extended horizontally to assume a **Crane Position**.	**22.5**		2. See BP 7 **Crane Position**. The bent leg moves simultaneously to the **Crane Position** as the hips are lifted and the trunk unrolls. All actions completed simultaneously as maximum height is achieved. The Crane Vertical is assumed under and in the same place as the ballet leg of the BP 4 **Flamingo Position**.
3. The horizontal leg is lifted in a 180° arc over the surface of the water, as it passes vertical, the vertical leg is moved to assume a **Bent Knee Surface Arch Position**.	**23.5** **15.5**		3. Height maintained on lift and pass through. Arcing leg moves continuously at a uniform speed with no pause as the legs meet prior to their lowering action. Bent knee position is achieved as the vertical is reached the surface. Tempo of leg raise to vertical is same as the lowering to **Bent Knee Surface Arch Position.**
4. The bent knee is straightened and with continuous motion, an *Arch to Back Layout* is executed.	**11.0**		4. See BM 5.

Figure 150 – Knight **Difficulty – 3.1**

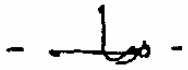
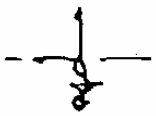
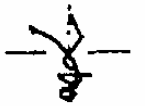
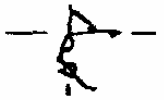
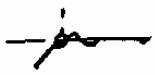
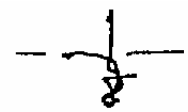
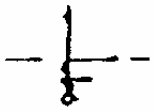
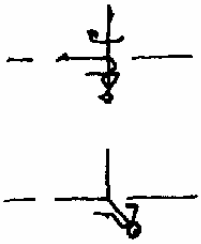
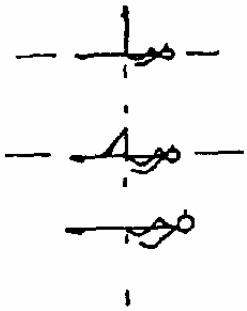
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A *Ballet Leg is assumed.*	**10.5** **11.0**		1. See BM 1.
2. Maintaining the position of the legs, the head moves downward as the lower back arches to a **Knight Position.**	**22.0**		2. See BP 17 **Knight Position**. Water level on the ballet leg remains constant.
3. The body straightens as the non-ballet leg is lifted to vertical and as the ballet leg bends, the foot follows a vertical line through the hips to assume a **Bent knee Vertical Position.**	**16.0**		3. Non-ballet leg reaches vertical simultaneously with the ballet leg achieving the BP 14c **Bent Knee Vertical Position** and the trunk becoming vertical. Constant height maintained.
4. A *Half Twist* is executed.	**15.5**		4. See BM 12a.
5. The back arches as the extended leg lowers to assume a **Bent Knee Surface Arch Position**.	**20.0**		5. See BP 14d **Bent Knee Surface Arch Position**. Maximum lower back arch in layover. Head remains aligned with hips. Water level and position of toe on leg remain constant.
6. The bent knee is straightened and with continuous motion, an *Arch to Back Layout* is executed.	**15.5** **+** **11.0**	  	6. Foot first surfacing action begins as soon as the feet are joined. See BM 5. No pause, but BP 13 **Surface Arch Position** must be evident, but not held, prior to initiation of arch-up action.

Figure 153 – Castle **Difficulty – 3.5**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Knight is executed to a **Knight Position.**	**10.5** **11.0** **22.0**		1. Same as Figure 150 Knight, steps 1 and 2.
2. The horizontal leg is lifted in a 180˚ arc over the surface to a **Crane Position.**	**21.5** **+** **19.5**		1. No pause as legs pass. Water level remains constant. Vertical leg remains perpendicular, with vertical alignment of the spine occurring as the legs pass. See BP 7 **Crane Position**.
3. A *Half Twist* is executed.	**15.0**		3. See BM 12a. Accurate **Crane Position** and height maintained.
4. A *Catalina Reverse Rotation* is executed to a **Surface Ballet Leg Position.**	**24.0**		4. See BM 8 and BP 3a.
5. The *Ballet Leg is lowered.*	**11.0** **10.5**		5. See BM 2.

5.2. FINA Handbook APPENDIX IV – CATEGORY II

Figure 201 – Dolphin **Difficulty – 1.4**

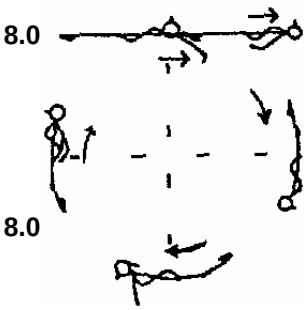
Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the head leading, a *Dolphin* is executed.			1. See BM 14.

Figure 225 – Reverse Crane **Difficulty – 3.1**

Rule Book Description	NV	Major Desired Actions
1. With the head leading, a *Dolphin* is started, followed by *Dolphin to Vertical.*	**8.0** **8.0 + 14.0**	1. See BM 14 and BM 15.
2. A *Half Twist* is executed.	**19.0**	2. See BM 12.
3. A **Crane Position** is assumed at the same height.	**19.5**	3. See BP 7 **Crane Position**. Stability and control as leg lowers.
4. An additional *Half Twist* is executed in the same direction at the same height.	**15.0**	4. Both *twists* turn on the same longitudinal axis through the centre of the body.
5. The body is turned around a lateral axis through the hips as it rises to assume a **Surface Ballet Leg Position**.	**22.0**	5. 90˚ angles maintained between the forward extended leg and the rest of the body. Height constant, with hips as pivot point. Head and feet reach BP 3a **Surface Ballet Leg Position** simultaneously.
6. The *Ballet Leg is Lowered.*	**11.0** **10.5**	6. See BM 2.

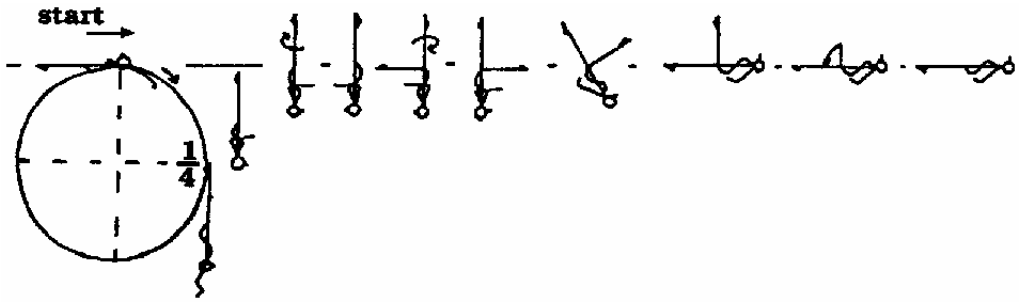
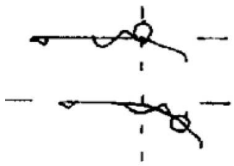
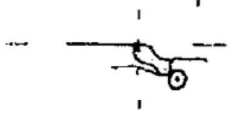
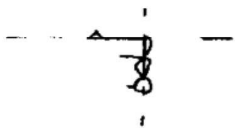
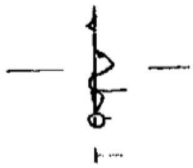
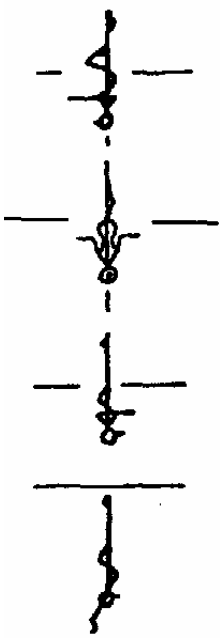


Figure 240 – Albatross **Difficulty – 2.2**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the head leading a *Dolphin* is initiated until the hips are about to submerge.			1. See BM 14.
2. The hips, legs and feet continue to move along the surface as the body rolls onto the face as it *assumes a Front Pike Position*.	**12.0**		2. See BM 3. The body turn, trunk descent and hip movement along the surface occur simultaneously, with the transition completed as the trunk becomes vertical and the hips replace the head at the surface.
3. The legs are lifted simultaneously to a **Bent Knee Vertical Position.**	**16.0**		3. Trunk remains on vertical line. Bent knee position is achieved as the vertical is reached. See BP 6 and BP14c re **Bent Knee Vertical Position.**
4. A *Half Twist* is executed.	**15.5**		4. See BM 12a.
5. The bent knee is extended to **Vertical Position.**	**14.5**		5. Water line and body alignment remain constant during extension of the bent knee.
6. A *Vertical Descent* is executed.	**14.0**		6. See BM 10.

Figures 240a – 240c – Albatross Twists

Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Albatross is executed until the *Half Twist* is completed.	**12.0** **16.0** **15.5**		1. See Figure 240 Albatross, steps 1 to 4.
2. The designated *twist* is executed as the bent knee is extended to meet the vertical leg.			2. See BM 12 *Twists*. Bent leg extends smoothly, with even join spaces, to arrive at vertical simultaneously with completion of *twist*. Water line constant. BP 6 **Vertical Position** held only long enough to demonstrate stability and control prior to descent.
240a - Albatross Half Twist **DD 2.6**	**16.5**		
240 b - Albatross Full Twist **DD 2.8**	**18.5**		Same as Figure 240a except that a definite sharp increase in speed must be evident, with no loss of height or stability.
240c - Albatross Twirl **DD 2.7**	**19.5**		
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

Figures 240d & e – Albatross Spins

Rule Book Description	NV	Major Desired Actions
1. An Albatross is executed until the *Half Twist* is completed.	**12.0** **16.0** **15.5**	1. Same as Figure 240 Albatross, steps 1 to 4.
2. The designated *spin* is executed as the bent knee is extended to meet the vertical leg.		2. See BM 13 *Spins*. Bent leg arrives at vertical simultaneously with completion of the *Spin*. The bent leg is extended upward at the same rate of space and time as that of the drop spaces of the vertical leg.
240d - Albatross Spinning *180°* **DD 2.3**	**13.0**	
240 e - Albatross Spinning *360°* **DD 2.4**	**15.0**	

Figures 240h & i – Albatross Ascending Spins

Rule Book Descriptions	NV	Major Desired Actions
1. An Albatross is executed until the *Half Twist* is completed.	**12.0** **16.0** **15.5**	1. See Figure 240 Albatross, steps 1 to 4.
2. Maintaining a **Bent Knee Vertical Position** the body descends to the ankle of the extended leg.	**10.0**	2. Vertical alignment maintained.
3. The designated *Ascending Spin* is executed as the bent knee is extended to meet the vertical leg.		3. See BM 13 *Spins*. The bent leg is extended upward at the same rate of space and time as the ascent spaces of the vertical leg, and arrives at vertical simultaneously with completion of the *Spin*. BP 6 **Vertical Position** held only long enough to demonstrate control and accuracy prior to *Vertical Descent*.
240h - Albatross Spin Up *180°* **DD 2.7**	**14.5 + 14.0**	
240i - Albatross Spin Up *360°* **DD 2.8**	**21.0 + 14.0**	

Figure 240j – Albatross Combined Spin **Difficulty – 3.0**

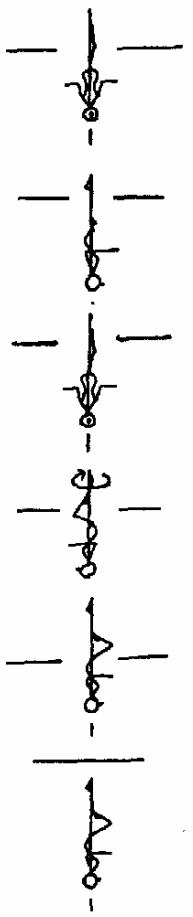
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Albatross is executed until the *Half Twist* is completed.	**12.0** **16.0**		1. Same as Figure 240 Albatross, steps 1 to 4.
2. A *Combined Spin* is executed, with the bent knee extending to meet the vertical leg on the descent, and bending to resume a **Bent Knee Vertical Position** on the ascent.	**15.5** **31.5**		2. The bent leg extends and rebends at the same rates of time and space on the descent and ascent. BP 6 **Vertical Position** is reached at heel level (See BM 13 - step 5.j *Spins)* simultaneously with completion of the *descending Spin* and the **Bent Knee Vertical Position** (BP 6 and BP 14) resumed at its original height simultaneously with completion of the *ascending Spin*.
3. The position is maintained during a *Vertical Descent*.	**10.0**		3. See BM 10.

Figure 241 – Goeland **Difficulty – 2.0**

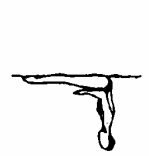
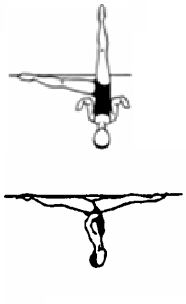
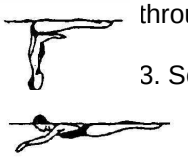
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Albatross is executed to the **Front Pike Position**.	**12.0**		1. Same as Figure 240 Albatross, steps 1 and 2.
2. One leg is lifted to vertical as the body rotates 90° on its longitudinal axis to assume a **Side Fishtail Position**, with continuous motion another 90° rotation is executed in the same direction as the vertical leg lowers to assume a **Split Position**.	**23.0**		2. Constant height and continuous motion as body rotates simultaneously with the 180° leg arc over the surface to BP 16a **Split Position.** Clear definition of BP 19 **Side Fishtail Position** as it is passed through at mid-point of 180° arc, but no pause. Vertical alignment of trunk maintained throughout rotation.
3. A *Walkout Back* is executed.	**18.0** **9.0**		3. See BM6b.

Figure 251 – Dolphin Foot First **Difficulty – 1.4**

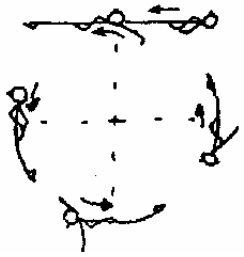
Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the feet leading, a *Dolphin* is executed.	**8.0** **8.0** **8.0** **8.0**		1. See BM 14.

Figure 255 – Dolphin Foot First Reverse Combined Spin **Difficulty – 2.4**

Rule Book Description	NV	Major Desired Actions
1. With the feet leading, a *Dolphin* is executed until the feet reach the ¾ point of the circle.	**8.0** **8.0** **8.0**	1. See BM 14.
2. A *Dolphin Foot First to Vertical* is executed until the body begins its ascent in **Vertical Position.**	**8.0**	2. See BM 17. Transitional value of movement to a Submerged Vertical Position.
3. A *Reverse Combined Spin* is initiated as the toes break the surface and completed as the heels return to the surface.	**39.0**	3. See BM 13 *Spins*. Ascending *spin* completed as maximum height is achieved, and followed immediately by an equal descending spin in the same direction.
4. A *Vertical Descent to Dolphin Foot First Circle* is executed.	**8.0**	4. See BM 17.
5. The *Dolphin* is resumed and continued to a **Back Layout Position.**	**8.0**	5. See BM 14. The feet lead the body parts sequentially back onto the circle.

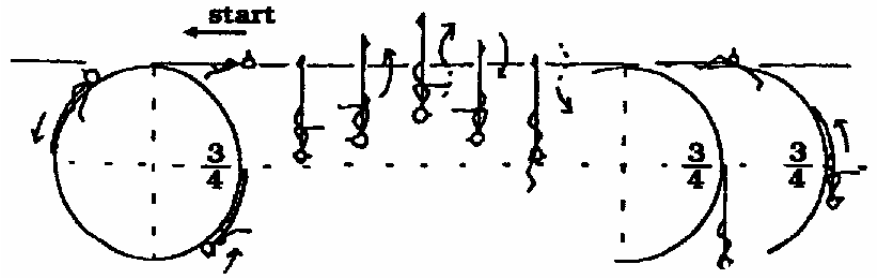
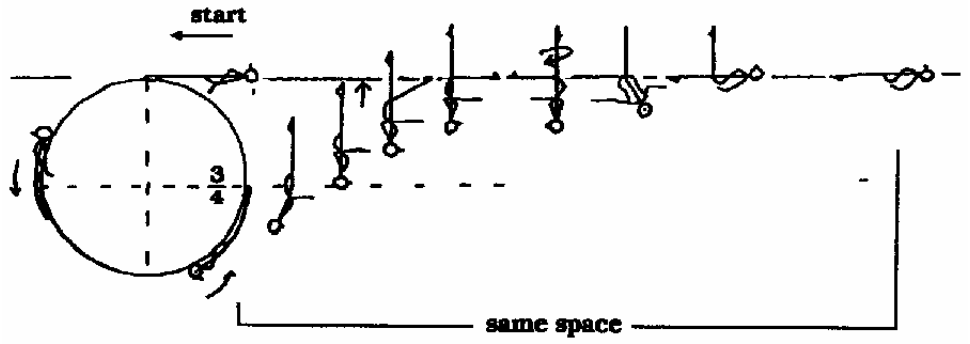


Figure 275 – Dolpholina **Difficulty – 2.5**

Rule Book Description	NV	Major Desired Actions
1. With feet leading, a *Dolphin* is executed until the feet reach the three quarter point of the circle.	**8.0** **8.0** **8.0**	1. See BM 14.
2. A *Dolphin Foot First to Vertical* is initiated.	**8.0**	2. See BM 17.
3. As the toes break the surface, one leg is lowered along the surface as the body continues to rise to a **Crane Position**.	**9.5**	3. The body achieves **Vertical Position** before the leg begins to lower. Continuous motion during rise to BP 7 **Crane Position** which is reached simultaneously with achievement of maximum height.
4. A *Half Twist* is executed.	**15.0**	4. See BM 12a.
5. A *Catalina Reverse Rotation* is executed to a **Surface Ballet Leg Position**.	**22.0**	5. See BM 8 and BP 3a. Water level constant on vertical leg.
6. The *Ballet Leg is lowered*.	**11.0** **10.5**	6. See BM 2.



5.3. FINA Handbook APPENDIX IV - CATEGORY III

Figure 301 – Barracuda **Difficulty – 2.0**

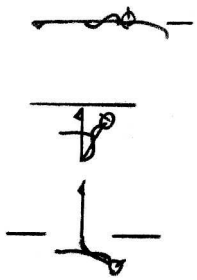
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just under the surface.	**13.0**		1. See BP 1 **Back Layout** and BP 11 **Back Pike Position.** In the submerged **Back Pike**, the hips are directly beneath the position they occupied in **Back Layout**. The pike is held only long enough to define the position and completion of the transition. In the **Back Pike Position** before the *Thrust* the feet should be below the surface of the water.
2. A *Thrust* is executed to **Vertical Position.**	**37.0**		2. See BM 9 *Thrust*. Sharp increase in speed. Maximum height in BP 6 prior to initiation of descent. **Vertical Position** clearly defined
3. A *Vertical Descent* is executed at the same tempo as the *Thrust*.	**14.0**		3. See BM 10. Speed and accuracy.

Figure 301 – Barracuda Twirl and Spins - see FINA Handbook Appendix I

Rule Book Description	NV	Major Desired Actions
1. A Barracuda is executed to **Vertical Position**.	**13.0** **37.0**	1. Same as Figure 301, steps 1 & 2.
2. **301c - Barracuda Twirl**		2a. See BM 12c. Maximum height maintained at rapid speed, with clear definition of completion and position prior to descent.
a. A *Twirl* is executed.	**35.0***	
b. A *Vertical Descent* is executed at the same tempo as the *Thrust.*	**14.0**	2b. See BM 10. Speed and accuracy.
3. The designated *Spin* is performed at the same tempo as the *Thrust* to complete the figure.		3. See BM 13. Uniform rapid motion at the same rate of speed as *Thrust*. In *Combined Spin*, the *Vertical Descent* maintains uniformity of rapid tempo established in *Spin*.
301d - Barracuda Spinning 180° -DD 2.1	**17.0**	
301e - Barracuda Spinning 360° -DD 2.2	**19.0**	
301f - Barracuda Continuous Spin -DD 2.7	**29.0**	
301j - Barracuda Combined Spin -DD 2.8	**39.0**	
4. **301h and 301i - Barracuda Ascending Spins**		
a. A *Vertical Descent* is executed at the same tempo as the *Thrust*, to heel level.	**14.0**	4a. See BM 10.
b. The designated *Ascending Spin* is performed.		
301h - Barracuda Spin Up 180°-DD 2.5		4b. See BM 13. Tempo of the
301i - Barracuda Spin Up 360°-DD 2.6	**19.0**	*Ascending Spin* is NOT rapid.
c. A *Vertical Descent* is performed at the same tempo as the *Thrust.*	**20.0**	4c. See BM 10.

*additional value due to require maximum airborne weight

Figure 302 – Blossom **Difficulty – 1.4**

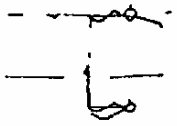
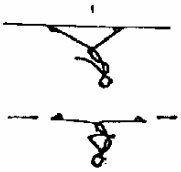
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, the trunk is lowered as the hips are bent to assume a **Submerged Ballet Leg Double Position.**	**12.0**		1. See BP 1 **Back Layout** and BP 5b **Submerged Ballet Leg Double Position.** Vertical line of legs occurs at the original surface hip placement. Trunk remains parallel to surface as it lowers.
2. The feet separate along the surface as the hips rise and the body assumes a **Split Position**.	**13.0**		2. See BP 16a **Split Position**. Hips rise along a vertical line as body moves into alignment beneath them.
3. The legs join to assume a **Vertical Position** at ankle level.	**7.0**		3. BP 6 **Vertical Position** and water level established simultaneously.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

Figure 303 – Somersault Back Pike **Difficulty – 1.5**

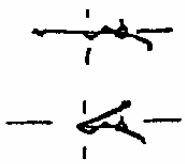
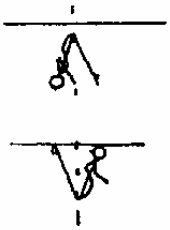
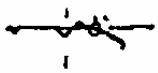
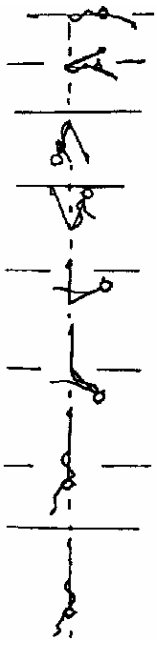
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, with the body remaining parallel and close to the surface, the legs are lifted rapidly to assume a **Back Pike Position.**	**16.0**		1. See BP 1 **Back Layout** and BP 11 **Back Pike Positions**. The **Back Pike** is achieved with the legs at a diagonal to the surface.
2. Without a pause, the body somersaults around a lateral axis until the feet and head simultaneously reach the surface.	**15.0**		2. No pause between achievement of **Back Pike** and initiation of rotation. Size of pike angle remains constant. Depth of the axis to be established as soon as possible along a vertical line beneath the original hip position of the **Back Layout**, then maintained throughout the rotation. The tempo of the rotation is uniform but not rapid.
3. A **Back Layout Position** is assumed.	**3.0**		3. Vertical hip ascent, to finish in same spot as in original **Back Layout.** Height and full extension achieved simultaneously.

Figure 305 – Barracuda Somersault Back Pike **Difficulty – 2.3**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, a partial Somersault Back Pike is executed until the legs are Vertical, with the toes just under the surface.	**16.0** **15.0**		1. Same as Fig. 303 Somersault Back Pike, steps 1 & 2. Water level and vertical line of legs established simultaneously. Size of **Back Pike** angle remains constant. In the BP 11 **Back Pike Position** before the *Thrust* the feet should be below the surface of the water.
2. The figure is completed as in Barracuda.	**37.0** **14.0**		2. Same as Figure 301, steps 2 & 3.

NOTE: This figure may also be executed with any of the spins or twirl described in Figure 301 Barracuda. See FINA Handbook APPENDIX I: BM 12 *Twists*, and BM 13 *Spins.*

Figure 306 – Barracuda Bent Knee **Difficulty – 2.0**

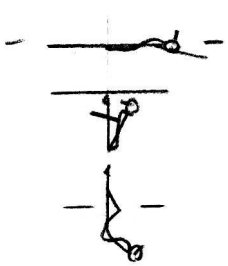
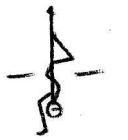
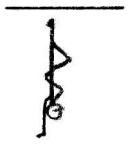
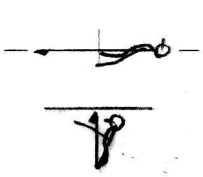
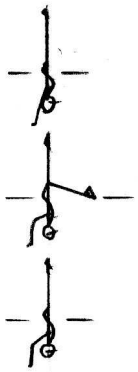
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just below the surface.	**13.0**		1. See BP 1 **Back Layout** and BP 11 **Back Pike Positions**. In the submerged Back Pike, the hips are directly beneath the position they occupied in Back Layout. The pike is held only long enough to define the position and completion of the transition.
2. A *Thrust* is executed as one foot is drawn along the inside of the other extended leg to assume a **Bent Knee Vertical Position**.	**34.0**		2. See BM 9 *Thrust*. Obvious increase in speed. Maximum height in BP 14 **Bent Knee Vertical Position** and maximum height achieved simultaneously and clearly defined prior to initiation of descent.
3. A *Vertical Descent* is executed in a **Bent Knee Vertical Position** at the same tempo as the *Thrust*.	**10.0**		3. See BP 14c **Bent Knee Vertical Position** and BM 10 **Vertical Descent**. Speed and accuracy.

Figure 306 – Barracuda Bent Knee Spins - see FINA Handbook Appendix I

Rule Book Description	NV	Major Desired Actions
1. A Barracuda Bent Knee is executed to a **Bent Knee Vertical Position**.	**13.0** **34.0**	1. Same as Figure 306 Barracuda Bent Knee, steps 1 & 2.
2. The designated *Spin* is executed as the bent knee is extended to meet the vertical leg at the same tempo as the *Thrust*.		2. See BM 13 *Spins*. *Spins* performed at the same speed as the *Thrust*. Bent leg arrives at vertical simultaneously with completion of the *Spin.*
306d - Barracuda Bent Knee Spinning 180°	**d.13.0**	The bent leg is extended upward at the same rate of space and time as that of the drop spaces of the vertical leg, See BM 10.
306e - Barracuda Bent Knee Spinning 360°	**e.15.0**	Simultaneous descent and extension of bent knee without a pause as feet join.

Figure 307 – Flying Fish **Difficulty – 3.0**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just below the surface.	**13.0**		1. Same as Figure 301, steps 1& 2.
2. A *Thrust* is executed to a **Vertical Position** and with no loss of height one leg is rapidly lowered to a **Fishtail Position** and without a pause the horizontal leg is rapidly lifted to a **Vertical Position**.	**85.0***		2. Maximum height maintained at rapid speed, with the trunk and vertical leg maintaining their alignment. Stability in **Vertical Position** (BP 6) evident prior to descent. In a **Fishtail Position**, one foot must be at the surface regardless of the height of the hips. The hip-joints must be on a horizontal line.
3. A *Vertical Descent* is executed at the same tempo as the *Thrust*.	**14.0**		3. See BM 10. Speed and accuracy. The tempo of the descent must be the same as in the *Thrust*.

*additional value due to require maximum airborne weight

Figure 307 – Flying Fish Spins - see FINA Handbook Appendix I

Rule Book Description	NV	Major Desired Actions
1. A Flying Fish is executed to a **Vertical Position**.	**13.0** **85.0***	1. Same as Figure 307, steps 1 & 2.
2. The designated *Spin* is executed at the same tempo as the *Thrust*.		2. See BM 13. Uniform rapid motion at the same rate of speed as the *Thrust*.
307d - Flying Fish Spinning 180° -DD 3.1	**d.19.0**	
307e - Flying Fish Spinning 360° -DD 3.2	**e.21.0**	

Figure 310 – Somersault Back Tuck **Difficulty – 1.1**

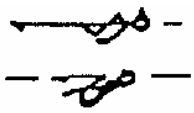
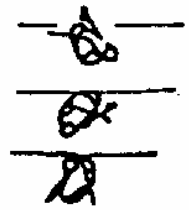
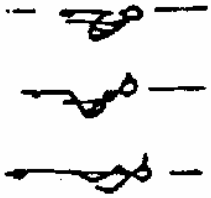
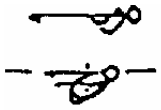
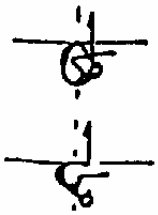
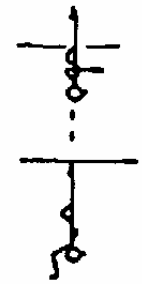
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From the knees and toes are drawn a **Back Layout Position**, along the surface to assume a **Tuck Position**.	**4.0**		1. See BP 1 **Back Layout** and BP 9 **Tuck Positions**. Legs are drawn to the body to assume a tight **Tuck** at the position occupied by the trunk in **Back Layout**. Once started, continuous motion is desirable until the finishing **Back Layout** is achieved.
2. With continuous motion the tuck becomes more compact as the body somersaults backward around a lateral axis for one complete revolution.	**8.0**		2. The head becomes part of the compact tuck as the roll is initiated. Constant height during rotation.
3. A **Back Layout Position** is resumed.	**4.0**		3. Legs, from toes to knees, slide along the surface to reach full extension as the body attains maximum height on the same spot as the starting **Back Layout.**

Figure 311 – Kip **Difficulty – 1.8**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, a partial Somersault Back Tuck is executed until the shins are perpendicular to the surface.	**4.0** **10.0**		1. Same as Fig. 310, steps 1& 2. Continuous motion from initiation of knee draw to achievement of inverted tuck.
2. The trunk unrolls as the legs are straightened to assume a **Vertical Position** midway between the former vertical line through the hips and the former vertical line through the head and shins.	**23.0**		2. BP 6 **Vertical Position** and maximum height achieved simultaneously. Stability and control evident prior to initiation of descent.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

NOTE: This figure may be executed with any of the twists or spins added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins*.

Figure 312 – Kip Split **Difficulty – 2.4**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kip is executed to **Vertical Position**.	**4.0** **10.0** **23.0**		1. Same as Figure 311, steps 1 & 2.
2. The legs are lowered symmetrically to **Split Position.**	**19.0**		2. See BP 16a **Split Position**. Both legs remain equidistant from the surface at all times. Height remains constant.
3. The legs are joined to resume **Vertical Position**.	**16.0**		3. Water line remains constant as legs are lifted to **Vertical Position**. Both legs remain equidistant from surface and achieve BP 6 **Vertical Position** simultaneously.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

Figure 313 – Kip Split Closing 180˚ **Difficulty – 2.5**

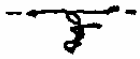
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kip Split is executed to a **Split Position**.	**4.0** **10.0** **23.0** **19.0**		1. Same as Figure 312, steps 1 & 2.
2. During a 180˚ rotation, the legs are closed symmetrically to **Vertical Position**.	**18.0**		2. Rotation and closing actions occur simultaneously, with completion of turn and achievement of BP 6 **Vertical Position** occurring as feet join. Both legs always equidistant from the surface. Longitudinal axis maintained throughout the rotation.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

Figure 314 – Kip Split Open 360˚ **Difficulty – 3.2**

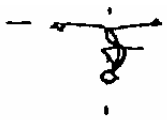
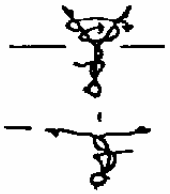
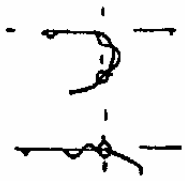
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kip Split is executed to a **Split Position**.	**4.0** **10.0** **23.0** **19.0**		1. Same as Figure 312, steps 1 and 2.
2. A 360˚ rotation is executed, with the legs symmetrically closing to pass through **Vertical Position** at the 180˚ point before separating to resume a **Split Position** at completion of the 360˚.	**18.0** **+** **21.0**		2. Both legs always equidistant from the surface. Height remains constant, with no pause in BP 6 in **Vertical Position**. During the closing and opening of the splits, the legs move evenly through time and space to complete the rotation as BP 16a **Split Position** is achieved. Longitudinal axis maintained throughout rotation.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 315 – Kipnus **Difficulty – 1.6**

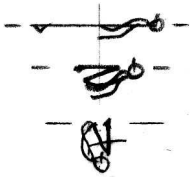
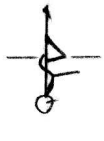
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, a partial Somersault Back Tuck is executed until the shins are perpendicular to the surface.	**4.0** **10.0**		1. Same as Figure 311, step 1.
2. The trunk unrolls as the legs assume a **Bent Knee Vertical Position** midway between the former vertical line through the hips and the former vertical line through the head and the shins.	**17.5**		2. BP 14 **Bent Knee Vertical Position** and maximum height achieved simultaneously. Stability and control evident prior to initiation of descent.
3. A *Vertical Descent* is executed in a **Bent Knee Vertical Position**.	**10.0**		3. See BM 10 and BP 14.

Figure 315b – Kipnus Variant **Difficulty – 2.1**

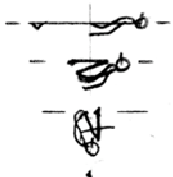
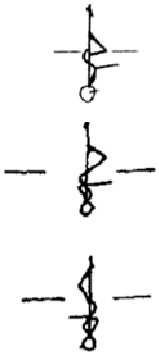
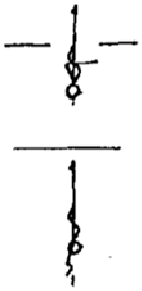
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kipnus is executed to a **Bent Knee Vertical Position**.	**4.0** **10.0** **17.5**		1. Same as Figure 311, step 1.
2. A *Full Twist* is executed as the bent knee is extended to meet the vertical leg.	**18.5**		2. BP 14 **Bent Knee Vertical Position** and maximum height achieved simultaneously. Stability and control evident prior to initiation of full twist. See BM 12. Continuous, smooth straightening of bent leg completed simultaneously with completion of the *Full Twist.* Maintenance of height, stability and vertical alignment throughout.
3. A *Vertical Descent* is executed.	**14.0**		2. See BM 10.

Figure 316 – Kip Bent Knee **Difficulty – 2.0**

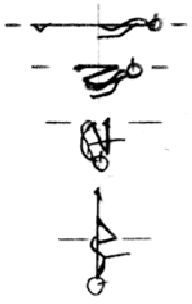
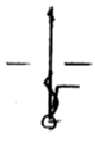
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kipnus is executed to a **Bent Knee Vertical Position**.	**4.0** **10.0** **17.5**		1. Same as Figure 311, step 1.
2. The bent knee is extended to a **Vertical Position**.	**14.5**		2. BP 14 **Bent Knee Vertical Position** and maximum height achieved simultaneously. Vertical alignment maintained during extension of the bent knee. Stability and control evident prior to descent.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

Figure 317 – Kipswirl **Difficulty – 2.3**

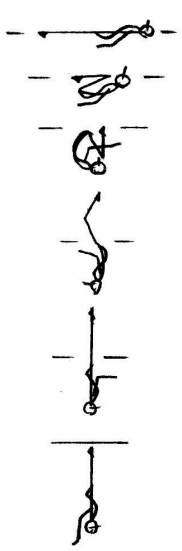
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Back Layout Position**, a partial Somersault Back Tuck is executed until the shins are perpendicular to the surface of the water.	**4.0**		1. Same as Figure 311, step 1.
	10.0		
2. As the trunk unrolls and the legs are straightened a 360°rotation is executed to assume a **Vertical Position**.	**50.0**		2. BP 6 **Vertical Position** and maximum height achieved simultaneously. Continuous, smooth straightening of bent legs completed simultaneously with completion of the 360°rotation. Stability, control and vertical alignment evident prior to initiation of descent.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

Figure 317 – Kipswirl Twists and Spins- see FINA Handbook Appendix I

Rule Book Description	NV		Major Desired Actions
1. A Kipswirl is executed to **Vertical Position**.		**4.0** **10.0** **50.0**	1. Same as Figure 317, steps 1 & 2.
2. The designated *Twist* or *Spin* is executed to complete the figure.			
316c - Kipswirl Twirl	**DD 2.8**	**c.23.0+14.0**	2 (c) See BM 12 *Twists*: c.*Twirl*
316 d-f Kipswirl Spins			2 (d-f) See BM 13 *Spins.*
316d - Kipswirl Spinning 180°	**DD 2.4**	**d.17.0**	d. *180°Spin*
316e - Kipswirl Spinning 360°	**DD 2.5**	**e.19.0**	e. *360°Spin*
316f - Kipswirl Continuous Spin	**DD 2.8**	**f.27.0**	f. *Continuous Spin*

Figure 318 – Elevator **Difficulty – 2.8**

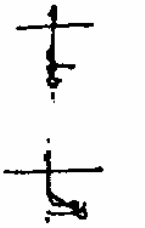
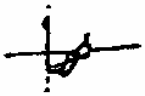
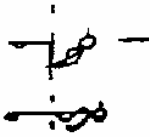
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Kip is executed to **Vertical Position.**	**4.0** **10.0** **23.0**		1. Same as Figure 311, steps 1 & 2.
2. A water level is established between the knees and ankles.	**14.0**		2. Water level set at the height to be maintained through the next transition. A Vertical Descent is executed until a water level is established between the knees and ankles.
3. The hips are piked as the trunk rises to assume a **Submerged Ballet Leg Double Position**.	**10.0**		3. Legs remain on vertical line. Height remains constant. See BP 5b **Submerged Ballet Leg Double Position**.
4. Maintaining this position, the body rises to a **Surface Ballet Leg Double Position**.	**19.0**		4. See BP 5a. **Surface Ballet Leg Double Position** held only long enough to demonstrate stability and control.
5. The figure is completed as in Ballet Leg Double.	**19.0** **4.0**		5. See Figure 110, steps 3 & 4.

Figure 320 – Somersault Front Pike **Difficulty – 1.7**

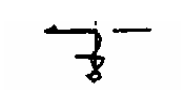
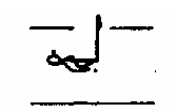
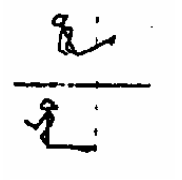
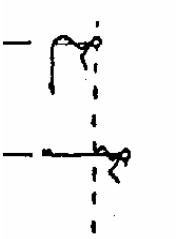
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed.*	**12.0**		1. See BM 3.
2. Followed by *Front Pike Position to Assume a Submerged Ballet Leg Double Position,*	**12.0**		2. See BM 4.
3. and with continuous motion a **Front Pike Position** is maintained as the body continues to somersault forward around a lateral axis so that the hips replace the head at each quarter point of the revolution until the head and buttocks return to the surface.	**12.0** **+** **12.0**		3. Uniform motion, with no pauses at each corner of the 'box' during the rotation. Constant 90° angle.
4.As the legs move upward to assume a **Front Layout Position**, the head, back and buttocks travel along the surface until the hips occupy the same position as the head at the beginning of this action.	**10.0**		4. Simultaneous leg lift and trunk travel, with heels surfacing as **Front Layout Position** is achieved. Face remains in water until heels reach the surface.

Figure 321 – Somersub **Difficulty – 2.0**

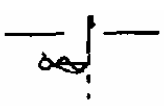
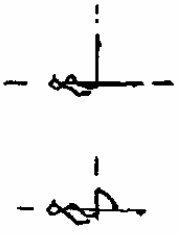
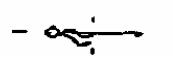
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a partial Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position.**	**12.0** **12.0**		1. Same as Figure 320, steps 1 & 2, and BP 5b.
2. One leg is lowered to a **Submerged Ballet Leg Position.**	**7.0**		2. Water level on vertical leg remains constant as other leg lowers to assume BP 3b. **Submerged Ballet Leg Position.** Position defined before body begins to rise.
3. Maintaining this position, the body rises vertically to a **Surface Ballet Leg Position**.	**10.5**		3. See BP 3a. Body rises along the vertical line established by the submerged ballet leg. Face and foot of the horizontal leg surface simultaneously.
4. The *Ballet Leg is lowered.*	**11.0** **10.5**		4. See BM 2.

Figure 322 – Subalina **Difficulty – 2.3**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Somersub is executed to a **Submerged Ballet Leg Position**.	**12.0** **12.0** **7.0**		1. Same as Figure 321, steps 1 & 2.
2. As the body rises as a *Catalina Rotation* is executed.	**17.5**		2. See BM 7. Initiation of rotation and body rise occur simultaneously. Completion of rotation, establishment of maximum height and achievement of BP 7 **Crane Position** occur simultaneously.
3. The horizontal leg is lifted to **Vertical Position.**	**18.5**		3. Trunk and vertical leg maintain alignment and height as legs join to BP 6 **Vertical Position**. Stability and control evident prior to descent.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

Figure 323 – Subilarc **Difficulty – 3.1**

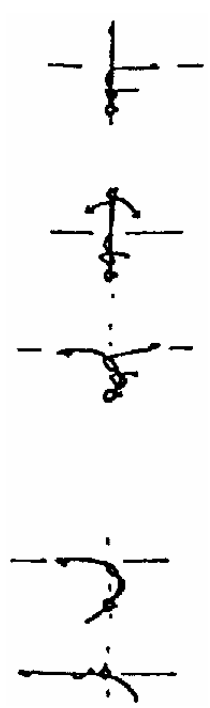
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Subalina is executed to a **Crane Position**.	**12.0** **12.0** **7.0** **17.5**		1. Same as Figure 322, steps 1 & 2
2. The horizontal leg is lifted in a 180° arc over the surface. As it passes the vertical leg, the vertical leg starts to move symmetrically in the opposite direction, and the legs reach a **Split Position** at the same time.	**18.5** **+** **19.0**		2. Height maintained on lift and pass through. Arcing leg moves continuously at an even tempo, with no pause as the legs meet prior to lowering action. From vertical to BP 16a **Split Position** both legs are always equidistant from the water and reach the surface simultaneously. Tempo of leg raise to vertical same as that of lowering to **Split Position.**
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a

Figure 324 – Ballerina **Difficulty – 2.0**

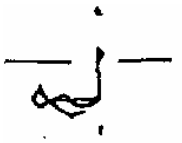
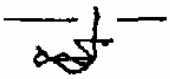
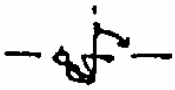
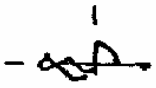
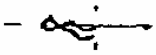
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position**.	**12.0** **12.0**		1. Same as Figure 320, steps 1 & 2, and BP 5b
2. One knee is bent to assume a **Submerged Flamingo Position**.	**5.0**		2. See BP 4b.
3. Maintaining this position, the body rises to a **Surface Flamingo Position**.	**9.5**		3. See BP 4a. Face and shin of bent leg surface simultaneously Body rises along vertical line established by legs in original **Submerged Ballet Leg Double Position.**
4. The ballet leg is lowered in a180˚ arc to the surface as the other leg moves to assume a **Bent Knee Position**.	**15.0**		4. See BP 1 **Back Layout** and BP14b **Bent Knee Back Layout Position.** Thigh of bent leg achieves vertical line and maximum height as foot of extended leg reaches surface.
5. The toe moves along the inside of the extended leg until a **Back Layout Position** is assumed.	**10.5**		5. Full extension and height in BP 1 **Back Layout** to be achieved as the feet are joined.

Figure 325 – Jupiter **Difficulty – 3.2**

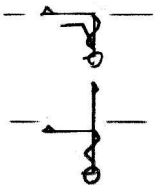
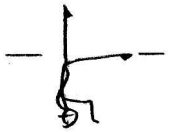
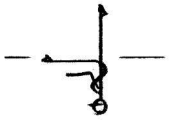
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position,** *a Front Pike Positions assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted to a **Crane Position**.	**13.5**		2. See BP 7. Height and vertical alignment of trunk maintained. Stability and control evident.
3. Maintaining the 90° angle between the legs, the horizontal leg moves to vertical as the vertical leg simultaneously continues its arc to the surface to assume a **Knight Position**.	**23.0**		3. See BP 17. Height and vertical alignment of trunk maintained. Stability and control evident. Height constant with hips as pivot point during steps from steps1 to 3.
4. Maintaining the vertical alignment of the body, the horizontal leg is moved in a 180° arc at the surface of the water to a **Fishtail Position**.	**17.0**		4. See BP 8. Vertical leg remains stationary with a constant water line. Foot of horizontal leg to be at the surface, not above.
5. The horizontal leg is lifted to the **Vertical Position.**	**18.5**		5. Height maintained. Trunk and vertical leg maintain alignment during lift. Stability and control evident in BP 6 **Vertical Position** prior to descent.
6. A *Vertical Descent* is executed.	**14.0**		6. See BM 10.

Figure 326 – Lagoon **Difficulty – 2.7**

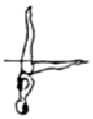
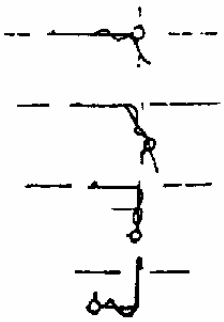
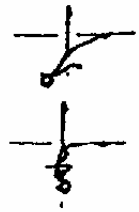
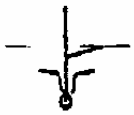
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Somersault Front Pike is executed to the **Submerged Ballet Leg Double Position**.	**12.0** **12.0**		1. See BM 3 and BM 4.
2. Maintaining the vertical line of the legs, the hips are lifted as the trunk unrolls to assume a **Vertical Position**.	**21.0**	 	2. The body unrolls under the legs to assume BP 6 **Vertical Position** along the same perpendicular line established by the legs in the BP 5b **Submerged Ballet Leg Double Position**.
3. One leg is lowered to a **Knight Position**.	**21.5**	 	3. See BP 17 **Knight Position**. Horizontal alignment of hips and shoulders 'square' and maintained during lowering. Height and vertical alignment of legs maintained. Stability and control evident.
4. The vertical leg is lowered to assume a **Surface Arch Position**, with continuous motion a Surface *Arch to Back Layout Finish Action* is executed.	**20.5** **11.0**		4. See BM 5. BP 13 **Surface Arch Position** should be shown, but not held. Feet join, then surfacing action begins.

Figure 330 – Aurora **Difficulty – 2.5**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position.**	**12.0**		1. Same as Figure 320, steps 1& 2, and BP 5b.
2. One leg rises vertically as the other moves along the surface to a **Knight Position**.	**19.5**		2. The trunk unrolls beneath the vertical leg. Movement of trunk and legs to BP 17 **Knight Position** is simultaneous with rise, with maximum height and body alignment achieved simultaneously.
3. The body rotates 180°to assume a **Fishtail Position.**	**13.0**		4. See BP 8. Height constant. Horizontal and vertical legs maintain alignment during rotation.
4. The horizontal leg is lifted to **Vertical Position**.	**18.5**		4. Height maintained. Trunk and vertical leg maintain alignment during lift. Stability and control evident in BP 6 **Vertical Position** prior to descent.
5. A *Vertical Descent* is executed.	**14.0**		5. See BM 10.

NOTE: With the exception of b. *Full Twist;* h. *Spin Up 180°* ; i. *Spin Up 360°* and j. *Combined Spin,* Aurora may be executed with *twists* and *spins* added on, as illustrated in 112 Ibis. See FINA Handbook Appendix I: BM 12 *Twists* and BM 13 *Spins.*

Figure 331 – Aurora Open 180° **Difficulty – 3.3**
332 – Aurora Open 360° **Difficulty – 3.4**

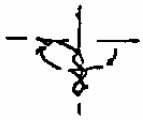
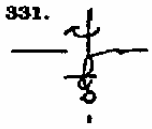
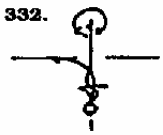
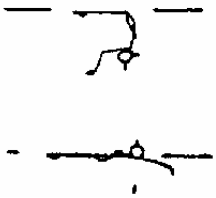
Rule Book Description	NV	Diagrams	Major Desired Actions
1. An Aurora is executed to a **Fishtail Position**.	**12.0** **12.0** **19.5** **13.0**		1. Same as Figure 330, steps 1 to 3.
2. Maintaining the vertical alignment of the body, the foot of the horizontal leg is moved with accelerating speed in a horizontal arc of 180° at the surface to a **Knight Position**…..	**17.0**		2. Vertical leg remains stationary with a constant water line. Foot of horizontal leg to be at the surface, not above. Controlled acceleration and full extension of horizontal leg during 180° arcing action to BP 17 **Knight Position**.
3. … and with continuous motion and accelerating speed, the body maintains this position as …			3. Full extension of back leg. Angle between legs remains constant, with **Knight Position** maintained throughout. Entire body 'locks' into position and moves as a unit. Fluid, continuous acceleration from BP 8 **Fishtail Position** to completion of action.
Figure 331 - Aurora Open 180° - an additional 180° rotation is executed in the same direction.	**26.0**		
Figure 332 - Aurora Open 360° − an additional 360° rotation is executed in the same direction.	**29.0**		
4. The vertical leg is lowered to a **Surface Arch Position.**	**20.5**		4. See BP 13.
5. An *Arch to Back Layout Finish Action* is executed.	**11.0**		5. See BM 5. BP 13 **Surface Arch Position** should be shown, but not held. Feet join, then surfacing action begins.

Figure 335 – Gaviata **Difficulty – 2.7**

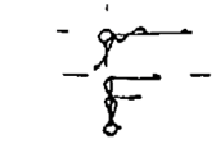
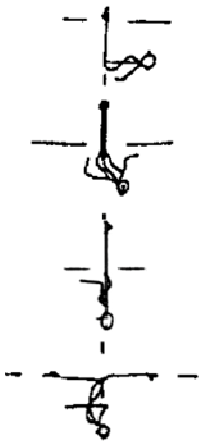
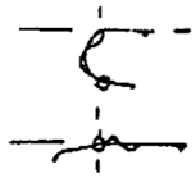
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position**.	**12.0** **12.0**		1. Same as Figure 320, steps1 & 2, and BP 5b.
2. A rising double leg *Catalina Rotation* is executed to a **Vertical Position**. The legs open symmetrically to a **Split Position**.	**23.0** **+** **19.0**		2a. See BM 7. Trunk movement from horizontal to vertical simultaneous with hip rotation and body rise. Rotation complete at BP6 **Vertical Position**. Maximum height achieved as *Catalina Rotation* is completed. 2b. While continuing to lower to BP 16a **Split Position**, both legs remain equidistant from the water, and reach the surface simultaneously. Hip level remains constant.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 336 – Gaviata Open 180˚ **Difficulty – 2.8**

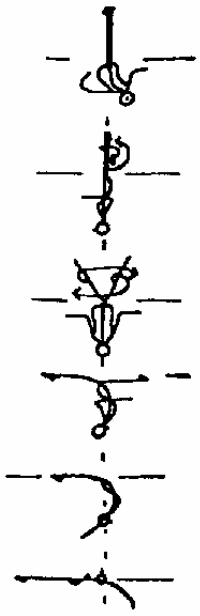
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Gaviata is initiated to a **Vertical Position**.	**12.0** **12.0**		1. Same as Fig. 335, steps1& 2a.
2. Continuing in the same direction, the legs open symmetrically during a 180°rotation to a **Split Position**.	**23.0** **+** **21.0**		2. See Figure 335, step 2a. Then, with continuous motion, the body turns 180˚ on its longitudinal axis as the legs lower simultaneously to BP 16a **Split Position.** Hip level remains constant and legs equidistant from the surface at all times.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 6a.

Figure 342 – Heron **Difficulty – 2.1**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position** a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position**.	**12.0**		1. Same as Figure 320, steps 1 & 2, and BP 5b.
2. One leg is bent with the shin parallel to the surface and the mid-calf opposite the vertical leg, as the trunk moves toward the legs.	**12.0** **5.0**		2. Although not in bold face, this position should be clearly defined at completion of the transition. Water level constant on vertical leg.
3. A *Thrust* is executed to a **Bent Knee Vertical Position**, with the foot of the bent leg moving simultaneously to the inside of the vertical leg during the rise.	**30.0**		3. See BM 9 *Thrust*. Obvious increase in speed. **Bent Knee Vertical (**BP 14) and maximum height achieved simultaneously and clearly defined prior to initiation of descent.
4. A *Vertical Descent* is executed in a **Bent Knee Vertical Position** at the same tempo as the *Thrust*.	**10.0**		4. See BM 10. Speed same as the *Thrust*.

Figure 342 – Heron Twists and Spins - see FINA Handbook Appendix I

Rule Book Description	NV	Major Desired Actions
1. A Heron is executed to a **Bent Knee Vertical Position.**	**12.0** **12.0** **5.0**	1. Same as Fig. 342, steps 1-3.
2. **342c - Heron Twirl -DD 2.7** A *Twirl* is performed in a **Bent Knee Vertical Position** to complete the figure. A *Vertical Descent* is executed at the same tempo as the *Thrust*.	**30.0** **19.5** **10.0**	2. See BM 12. Maximum height maintained at rapid speed, with clear definition of position and completion of *Twirl* prior to descent. *Vertical descent* at speed of the *Thrust*.
3. **342d, e, f and j** - The designated *Spin* is performed in a **Bent Knee Vertical Position** to complete the figure, at the same tempo as the *Thrust*.		3. BM 13 *Spins* performed at same speed as the *Thrust*.
342d - Heron Spinning 180° -DD 2.2	**13.0**	
342 e - Heron Spinning 360° -DD 2.3	**15.0**	
342f - Heron Continuous Spin -DD 2.8	**24.0**	
342j - Heron Combined Spin -DD 2.9	**31.5**	
4. **342 h and i - Ascending Spins**	**10.0**	
a. A *Vertical Descent* in a **Bent Knee Vertical Position** is executed to heel level, at the same tempo as the *Thrust*.		4a. See BM 10. Speed same as the *Thrust.*
b. The designated *ascending Spin* is performed in a **Bent Knee Vertical Position** as the same tempo as prior to the *Thrust*.		4b. See BM 13. Speed of *Spin* same as prior to the *Thrust.*
342h - Heron Spin Up 180°	**15.0**	
342i - Heron Spin Up 360°	**16.5**	
c. A *Vertical Descent* completes the figure.	**10.0**	4c. See BM 10. Speed same as the *Thrust.*

Figure 344 – Neptunus **Difficulty – 1.8**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted to a **Crane Position**.	**13.5**		2. See BP 7. Height and vertical alignment of trunk maintained. Stability and control evident.
3. The horizontal leg is bent to assume a **Bent Knee Vertical Position**.	**17.0**		3. See BP 6 and BP 14. Height, stability and vertical body alignment maintained.
4. A *Vertical Descent* is executed as the bent knee is extended to meet the vertical leg as the ankles submerge.	**9.5**		4. See BM 10. Simultaneous descent and extension of bent knee without a pause as feet join.

Figure 345 – Catalina Reverse **Difficulty – 2.1**

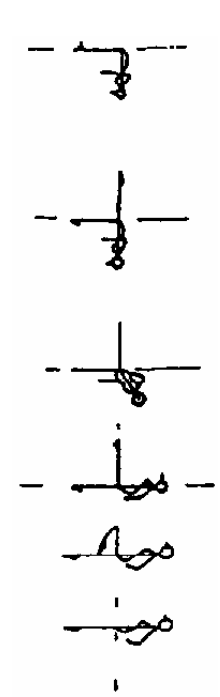
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted to a **Crane Position**.	**13.5**		2. See BP 7. Height and vertical alignment of trunk maintained. Stability and control evident.
3. A *Catalina Reverse Rotation* is executed.	**24.0**		3. See BM 8 and BP 3a. Water line on vertical leg remains constant.
4. The *Ballet Leg is lowered*.	**11.0** **10.5**		4. See BM 2.

Figure 346 – Side Fishtail Split **Difficulty – 2.0**

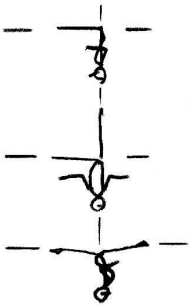
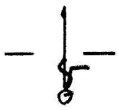
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted to vertical as the body rotates 90° on its longitudinal axis to assume a **Side Fishtail Position**, and with continuous motion another 90° rotation is executed in the same direction as the vertical leg lowers to assume a **Split Position**.	**23.0**		2. Constant height and continuous motion as body rotates simultaneously with the 180° leg arc over the surface to BP 16 **Split Position.** Clear definition of BP 19 **Side Fishtail Position** as it is passed through at mid-point of 180° arc, but no pause. Vertical alignment of trunk maintained throughout rotation.
3. The legs are lifted to **Vertical Position**.	**16.0**		3. Maximum height and stability maintained. Both legs always equidistant from surface with BP 6 **Vertical Position** achieved as feet join.
4. A *Vertical Descent* is executed.	**14.0**		4. See BM 10.

Figure 347 – Beluga **Difficulty – 2.3**

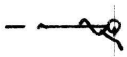
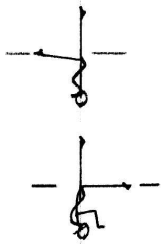
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, *a Front Pike Position is assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted to a **Fishtail Position**.	**13.5**		2. See BP 8. Height and vertical alignment of trunk maintained. Stability and control evident.
3. Maintaining the vertical alignment of the body, the foot of the horizontal leg is moved with accelerating speed in a horizontal arc of 180° at the surface to a **Knight Position**.	**17.0**		3. Vertical leg remains stationary with a constant water line. Foot of horizontal leg to be at the surface, not above. Controlled acceleration and full extension of horizontal leg during 180° arcing action to BP 17 **Knight Position**.
4. The vertical leg is lowered to a **Surface Arch Position**.	**20.5**		4. Lowering leg moves continuously at an even tempo. Both legs maintain full extension.
5. An *Arch to Back Layout Finish Action* is executed.	**11.0**		5. See BP 13 and BM 5. **Surface Arch Position** should be shown, but not held. Feet join, then surfacing action begins.

Figure 348 – Dalecarlia **Difficulty – 2.4**

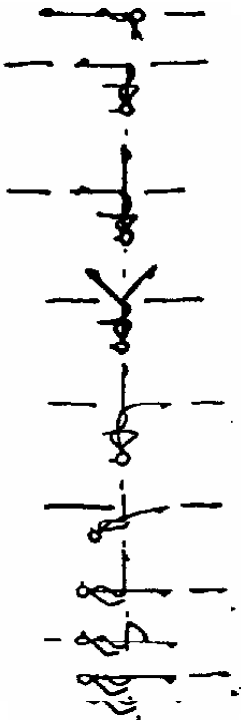
Rule Book Description	NV	Diagrams	Major Desired Actions
1. Jupiter is executed to a **Knight Position**.	**12.0**		1. See Figure 325, steps 1,2,3.
	13.5		2. See BP 7. Height and vertical alignment of trunk maintained. Stability and control evident.
	23.0		3. Trunk maintains vertical alignment and height as both legs move as a 'locked' unit to BP 17 **Knight Position** with vertical leg reaching surface as horizontal leg achieves vertical.
2. Without moving the legs, the trunk straightens as it rises to a **Surface Ballet Leg Position**.	**14.0**		3. See BP 3a. Hip level and leg alignment remain constant.
3. The *Ballet Leg is lowered.*	**11.0** **10.5**		4. See BM 2.

Figure 350 – Minerva **Difficulty – 2.2**

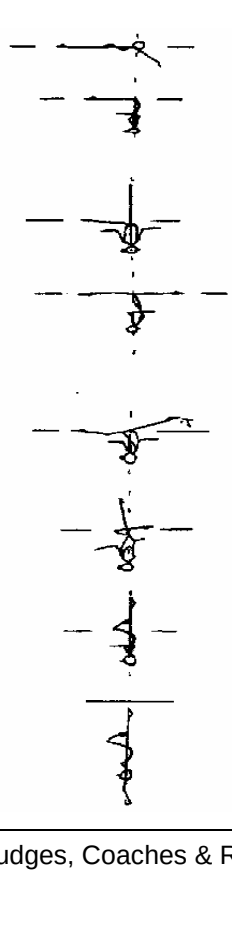
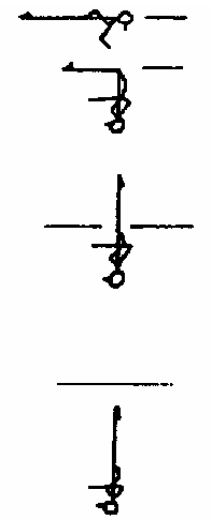
Rule Book Description	NV	Diagrams	Major Desired Actions
1. Side Fishtail Split is executed to a **Split Position**.	**12.0**		1. See BP 2 and BM 3.
	23.0		See Figure 346, step 2.
2. During an additional 180° rotation in the same direction, the front leg lifts to vertical as the back leg bends to an angle of 90° or less with the thigh and shin remaining at the surface as it moves through to a **Bent Knee Vertical Position.**	**26.0**		3. Sustained height and simultaneous movement of the legs to achieve **Bent Knee Vertical Position** (BP 14) as the rotation is completed. During much of the bending action of the back leg, the inside of the shin and thigh faces upward.
4. A *Vertical Descent* is executed in a **Bent Knee Vertical Position**.	**10.0**		3. See BM 10.

Figure 355 – Porpoise **Difficulty – 1.9**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed.*	**12.0**		1. See BP 2 and BM 3.
2. The legs are lifted to **Vertical Position**.	**29.0**		2. Trunk remains on vertical line as legs are lifted. Maximum height and BP 6 **Vertical Position** achieved simultaneously. **Vertical** held only long enough to demonstrate stability and control.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

NOTE: This figure may be executed with any twist or spin added on, as illustrated in Figure 112 Ibis.
See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins.*

Figure 360 – Walkover Front **Difficulty – 2.1**

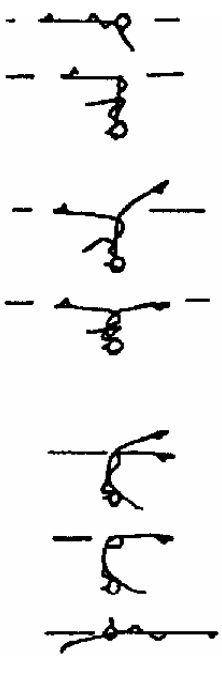
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BP 2 and BM 3.
2. One leg is lifted in a 180° arc over the surface to **Split Position**.	**21.0**		2. Constant height and continuous uniform motion to achieve BP 16 **Split Position**. Trunk maintains its vertical alignment, with hips and shoulders 'square'. Foot of stationary leg remains at surface.
3. A *Walkout Front* executed.	**24.0**		3. See BM 6a.
	+		
	11.0		

Figure 361 – Prawn **Difficulty – 1.9**

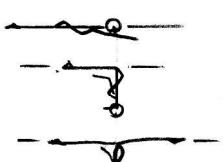
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a Walkover Front is executed to the **Split Position**.	**12.0** **21.0**		1. Same as Figure 360 Walkover Front, steps 1&2.
2. The legs join to assume a **Vertical Position** at ankle level.	**7.0**		2. Both legs achieve BP 6 **Vertical Position** simultaneously. Height of both legs to be at ankle level during closing to a **Vertical Position**. The hips always have to sink.
3. A *Twirl* is executed to complete the figure.	**16.0**		3. See BM 12 and BM 10. Ankle level maintained at rapid speed, with clear definition and position prior to descent.

Figure 362 – Surface Prawn **Difficulty – 1.7**

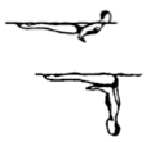
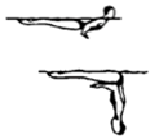
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BM 3.
2. One foot is moved in horizontal arc of 180° at the surface to a **Split Position**.	**12.0**		2. Continuous uniform motion to achieve BP 16 **Split Position**. Trunk maintains its vertical alignment, with hips and shoulders 'square'. Foot of stationary leg remains at surface. Foot of moving leg to be at the surface, not above.
3. The legs are joined to assume a **Vertical Position** at the ankles.	**7.0**		3. Both legs achieve BP 6 **Vertical Position** simultaneously. Height of both legs to be at ankle level during closing to a **Vertical Position**. The hips always have to sink.
4. A *Twirl* is executed followed by a *Vertical Descent*.	**16.0**		4. See BM 12 and BM 10. Ankle level maintained at rapid speed, with clear definition and position prior to descent.

Figure 363 – Water Drop **Difficulty – 1.6**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a *Front Pike Position is assumed*.	**12.0**		1. See BM 3.
2. The legs are lifted simultaneously to a **Bent Knee Vertical Position**.	**16.0**		2. Trunk remains on vertical line. Bent knee position is achieved as the vertical is reached. See BP 6 and BP14c re **Bent Knee Vertical Position.**
3. A *180° Spin* is executed as the bent knee is extended to a **Vertical Position** before the heels reach the surface of the water.	**13.0**		3. See BM 13. Body alignment remain constant during extension of the bent knee. Bent leg arrives at vertical simultaneously with completion of the *Spin.* The bent leg is extended upward at the same rate of space and time as that of the drop spaces of the vertical leg, See BM 10. Simultaneous descent and extension of bent knee without a pause as feet join.

5.4. FINA Handbook APPENDIX I - CATEGORY IV

Figure 401 – Swordfish **Difficulty – 2.0**

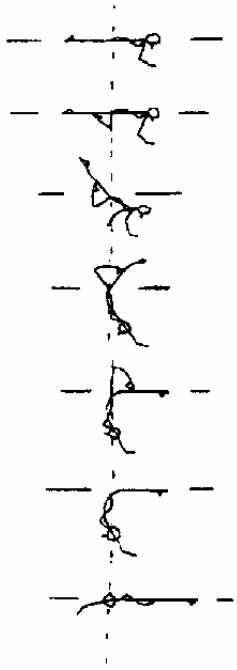
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a **Bent Knee Position** is assumed.	**7.5**		1. See BP 2 and BP14. Any change of head position – in/out - to occur as knee is bending. Position of the toe of the bent leg on the extended leg is maintained until step 3.
2. The back arches as the extended leg is lifted in a 180° arc over the surface to assume a **Bent Knee Surface Arch Position.**	**31.0**		2. See BP13 and BP14. Lifting of the extended leg and arching of the back occur simultaneously. Foot comes off the surface as the head goes under. Hips maintain height and are pivot point about which body rotates.
3. The bent knee is straightened and with continuous motion, an *Arch to Back Layout Finish Action* is executed.	**15.5 + 11.0**		3. See BM 5. BP 13 **Surface Arch Position** is defined, but not held, prior to start of surfacing action.

Figure 402 – Swordasub **Difficulty – 2.3**

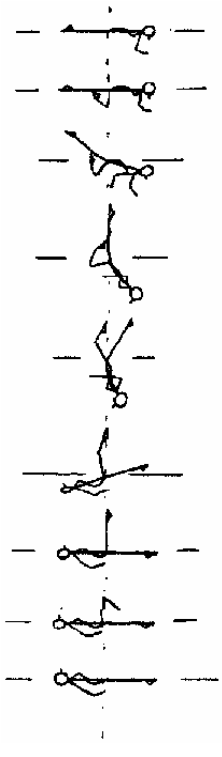
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a **Bent Knee Position** is assumed.	**7.5**		1. Same as Figure 401, step 1.
2. The back arches as the extended leg is lifted in a 180° arc over the surface.	**28.0**		2. See BP14. Lifting of the extended leg and arching of the back occur simultaneously. Foot comes off the surface as the head goes under. Hips maintain height and are pivot point about which the body rotates.
3. As the extended leg passes vertical, the bent leg straightens with the foot following a vertical line through the hips as the body assumes a **Surface Ballet Leg Position**. The face and foot of the extended leg reach the surface simultaneously.	**+ 22.5**		3. No pause between steps 2 and 3. Simultaneous extension of bent leg; lowering of extended leg; and raising of body to BP 3a **Surface Ballet Leg Position.** Hip level constant.
4. The *Ballet Leg is lowered*.	**11.0 10.5**		4. See BM 2.

Figure 403 – Swordtail **Difficulty – 2.5**

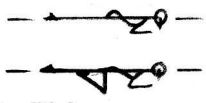
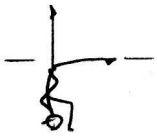
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position,** a **Bent Knee Position** is assumed.	**7.5**		1. Same as Figure 401, step 1.
2. The back arches more as the extended leg is lifted in a 180° arc over the surface of the water.	**28.0**		2. See Figure 402, step 2.
3. As the extended leg passes vertical, the bent leg straightens with the foot following a vertical line to assume a **Knight Position**.	**21.0**		3. No pause between steps 2 and 3. Simultaneous extension of bent leg and lowering of extended leg to BP 17 accurate **Knight Position**. Hip level constant with hips as pivot point during steps 1 to 3.
4. The vertical leg is lowered to a **Surface Arch Position**.	**20.5**		4. See BP 13. Trunk maintains same position until the feet join.
5. An *Arch to Back Layout Finish Action* is executed.	**11.0**		5. See BM 5. **Surface Arch Position** should be shown, but not held. Feet join, then surfacing action begins.

Figure 405 – Swordalina **Difficulty – 2.5**

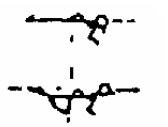
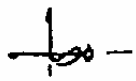
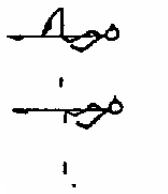
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, a **Bent Knee Position** is assumed.	**7.5**		1. See BP 2 and BP 14. Hips remain at surface. Position of toe of bent leg on extended leg maintained through step 2.
2. The back arches as the extended leg describes an arc over the surface until its foot is directly over the head.	**28.0**		2. See Figure 401, step 2. Alignment of head and foot evident prior to initiation of the rotation.
3. The hips rotate 180° as the trunk rises, with minimal lateral movement, to a **Submerged Flamingo Position.**	**20.5**		3. Hips stationary and height maintained during trunk rotation and rise to BP 4b **Submerged Flamingo Position.**
4. As the body rises, the bent knee is straightened to assume a **Surface Ballet Leg Position**.	**11.5**		4. BP 3a **Surface Ballet Leg** achieved as face surfaces and bent leg reaches full extension.
5. The *Ballet Leg is lowered.*	**11.0** **10.5**		5. See BM 2.

Figure 406 – Swordfish Straight Leg **Difficulty – 2.0**

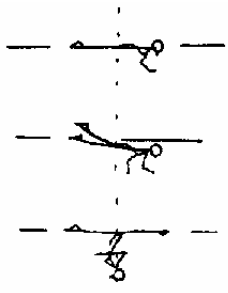
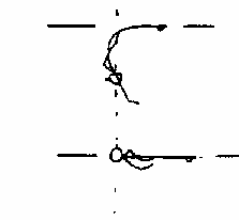
Rule Book Description	NV	Diagrams	Major Desired Actions
1. From a **Front Layout Position**, the back arches as one leg is lifted in a 180° arc over the surface to a **Split Position.**	**30.0**		1. See BP 2. Simultaneous lift of leg and descent of body, with foot of arcing leg coming off the surface as the head goes under. Height constant with hips as pivot point. Head comes into line under hips as foot of arcing leg passes vertical. Maximum height and uniform motion of leg arcing to BP 16 **Split Position**. Non-arcing leg remains at surface.
2. A *Walkout Front* is executed.	**24.0** **+** **11.0**		2. See BM 6a.

Figure 410 – Hightower **Difficulty – 3.3**

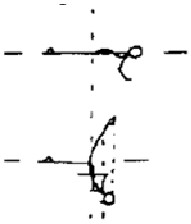
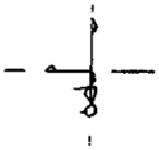
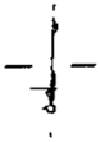
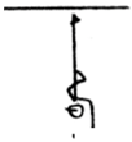
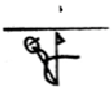
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Swordfish Straight Leg is executed until the foot of the lifting leg is directly over the head.	**25.5**		1. Same as Figure 406, step 1. Alignment of foot and head evident prior to initiation of step 2. Degree of arch may range from minimal to maximal.
2. The body is straightened to a Crane Position, assuming vertical midway between the former vertical line through the hips and the former vertical line through the foot and the head.	**11.0**		2. See BP 7. Height maintained.
3. The horizontal leg is lifted to a **Vertical Position**.	**18.5**		3. Height and alignment of vertical leg and trunk constant on leg join to BP 6 **Vertical Position**, with stability and control evident prior to initiation of descent.
4. A *Vertical Descent* is executed until toes are submerged.	**14.0**		4. Vertical height established at level to be maintained through next transition. A *Vertical Descent* is executed toes are submerged.
5. Maintaining the vertical line of the legs, the hips are piked as the trunk rises to assume a submerged **Back Pike Position**.	**16.0**		5. See BP11 **Back Pike Position**. Water line constant on legs.
6. A *Thrust* is executed to a **Vertical Position.**	**37.0**		6. See BM 9 *Thrust*.
7. A *Vertical Descent* is executed at the same tempo as the *Thrust*.	**14.0**		7. See BM 10 *Vertical Descent*.

Figure 413 – Alba **Difficulty – 2.4**

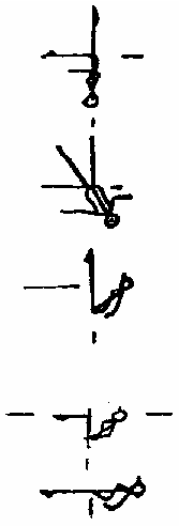
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Hightower is executed to a **Crane Position**.	**25.5** **11.0**		1. Same as Figure 410, steps1 & 2.
2. A *Catalina Reverse Rotation* is executed as the horizontal leg is lifted, with minimal lateral movement, to assume a **Surface Ballet Leg Double Position.**	**24.5**		2. See BM 8. Simultaneous body rotation and leg lift, with horizontal leg taking most direct route to BP5a **Surface Ballet Leg Double Position**, with position being achieved as the face surfaces. Constant hip level.
3. The legs are bent to assume a **Tub Position**.	**19.0**		3. See Figure 110, steps 3 & 4.
4. The knees are straightened to resume a **Back Layout Position**.	**4.0**		

Figure 420 – Walkover Back **Difficulty – 2.0**

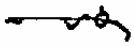
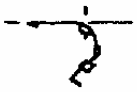
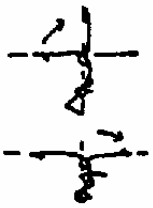
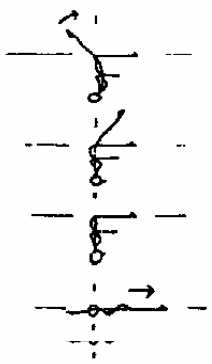
Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the head leading, a *Dolphin* is initiated.			1. BM 14 *Dolphin* continues until the hips are about to submerge.
2. The hips, legs and feet continue to move along the surface as the back is arched more to assume a **Surface Arch Position**.	**16.0**		2. Continuous movement from initiation of step 1 until achievement of BP 13 **Surface Arch Position.**
3. One leg is lifted in a 180°arc over the surface to a **Split Position**.	**21.0**		3. The back leg remains fully extended. Hips remain stationary, aligned horizontally, and at the surface. Continuous uniform motion of leg arcing to BP 16 **Split Position**.
4. A *Walkover Back* is executed.	**18.0** + **9.0**		4. See BM 6b.

Figure 421 – Walkover Back Closing 360° **Difficulty – 2.2**

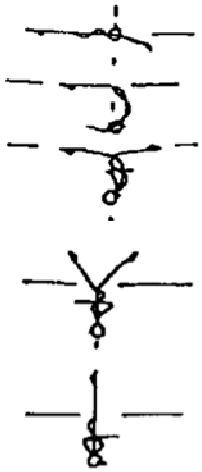
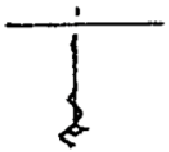
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Walkover Back is executed to a **Split Position**.	**16.0** **21.0**		1. Same as Figure 420, steps1 to 3.
2. With continuous motion a rotation of 360° is executed as the legs are symmetrically lifted and closed to a **Vertical Position**.	**21.0**		2. Both legs always equidistant from surface with a 90° angle between them at halfway point of 360° rotation. Simultaneous completion of rotation and achievement of BP 6 **Vertical Position** as feet join. Height constant and longitudinal axis maintained during rotations. Stability and control evident in **Vertical** prior to descent.
3. A *Vertical Descent* is executed.	**14.0**		3. See BM 10.

Figure 423 – Ariana **Difficulty – 2.2**

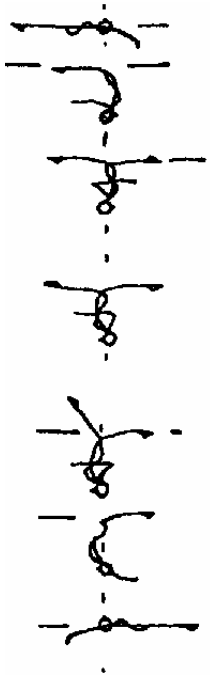
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Walkover Back is executed to a **Split Position**.	**16.0** **21.0**		1. Same as Figure 420, steps1 to 3.
2. Maintaining the relative position of the legs to the surface, hips rotate 180°.	**9.0**		2. The trunk turns 180° around its longitudinal axis, while the legs rotate horizontally at the surface, with the height and extension of BP16 **Split Position** equal throughout.
3. A *Walkout Front* is executed.	**24.0** **+** **11.0**		3. See BM 5a.

Figure 435 – Nova **Difficulty – 2.3**

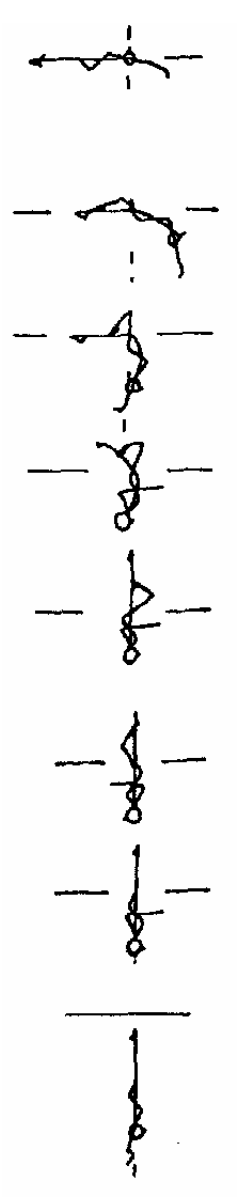
Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the head leading, a *Dolphin* is initiated until the hips are about to submerge.			1. See BM 14.
2. The hips, legs and feet continue to move along the surface as the back is arched more as one knee is bent to assume **Bent Knee Surface Arch Position.**	**19.5**		2. Continuous uniform movement BP 1 **Back Layout** to **Bent Knee Surface Arch** [BP13 & BP 14] Hip height constant.
3. The legs are lifted to a **Bent Knee Vertical Position**.	**21.0**		3. See BP 14. Body height and position of toe of bent leg on extended leg remain constant. Trunk alignment maintained beneath hips and shoulders. Hips and shoulders aligned horizontally and 'square'.
4. A *Full Twist* is executed as the bent leg is extended to meet the vertical leg.	**18.5**		4. See BM 12. Continuous, smooth straightening of bent leg completed simultaneously with completion of the *Full Twist.* Maintenance of height, stability and vertical alignment throughout.
5. A *Vertical Descent* is executed.	**14.0**		5. See BM 6 and BM 10.

Figure 435 – **Nova Twists and Spins – see FINA Handbook Appendix I**

Rule Book Description		**NV**	Major Desired Actions
1. A Nova is executed to completion of the *Full Twist.*			1. Same as Figure 435, steps 1-4.
2. The designated *Spin* is performed to complete the figure.			
2a. **435 c Nova Twirl** A *Twirl* performed to complete the figure.	**DD 2.8**	**23.0 + 14.0**	2a. See BM 12 *Twists*
2b. **435 d-g Nova Spins**			2b. See BM 13 *Spins*
d. Spinning 180°	**DD 2.4**	**17.0**	
e. Spinning 360°	**DD 2.5**	**19.0**	
f. Continuous Spin	**DD 2.8**	**27.0**	
g. Twist Spin	**DD 3.2**	**19.0 + 27.0**	

Figure 436 – Cyclone **Difficulty – 2.7**

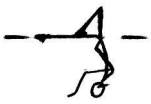
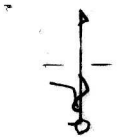
Rule Book Description	**NV**	Diagrams	Major Desired Actions
1. A Nova is executed to a **Bent Knee Surface Arch Position**.			1. Same as Figure 435, steps 1 and 2.
	19.5		Continuous uniform movement BP 1 **Back Layout** to **Bent Knee Surface Arch** [BP 13 & BP 14]. Hip height constant. Both hip joints on a horizontal line.
2. The legs are simultaneously lifted to a **Vertical Position** as a *Twirl* is executed.	**39.0**		2. See BP 6 and BM 12. Trunk alignment maintained beneath hips and shoulders. Straightening of bent leg completed simultaneously with completion of the *Twirl.* A rapid 180 rotation of the whole body is executed with minimal lateral movement.
3. A ½ *Twist* in the opposite direction is executed.	**20.0**		3. See BM 12.
4. *A Vertical Descent is executed.*	**14.0**		4. See BM 10.

Figure 436 – Cyclone Twists and Spins– see FINA Handbook Appendix I

Rule Book Description		NV	Major Desired Actions
1. A Cyclone is executed until the *half Twist* in the opposite direction.	**19.5** **33.0** **19.0**		1. Same as Figure 436, steps 1,2,3.
2.The designated Twist or Spin is executed to complete the figure.			
436c - Cyclone Twirl	**DD 3.2**	**c.23.0+14.0**	2a. See BM 12 Twists: c.*Twirl*
436 d-f Cyclone Spins			2b. See BM 13 *Spins*
436d - Cyclone Spinning 180°	**DD 2.8**	**d.17.0**	d. *180° Spin*
436e - Cyclone Spinning 360°	**DD 2.9**	**e.19.0**	e. *360° Spin*
436f - Cyclone Continuous Spin	**DD 3.2**	**f.27.0**	f. *Continuous Spin*

Figure 437 – Oceanea **Difficulty – 2.0**

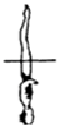
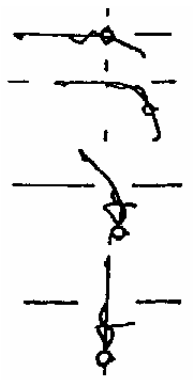
Rule Book Description	NV	Diagrams	Major Desired Actions
1. A Nova is executed to a **Surface Arch Bent Knee Position**.	**19.5**		1. See BM 14.
2. The horizontal leg is lifted to the vertical as the bent knee is extended to assume a **Vertical Position**.	**21.5**	 	2. See BP14d **Bent Knee Vertical Surface Arch Position** and BP 6 **Vertical Position.** Horizontal alignment of hips and shoulders 'square' and maintained during lift. Bent leg arrives at vertical simultaneously with completion of feet join. The bent leg is extended upward at the same rate of space and time as that of the lift spaces of the vertical leg.
3. A *Continuous Spin* of 720° (2 rotations) is executed.	**27.0**		3. See BM 13f *Continuous Spin*.

Figure 438 – Spiral **Difficulty – 3.5**

Rule Book Description	NV	Diagrams	Major Desired Actions
1. With the head leading, a *Dolphin* is initiated until the hips are about to submerge.			1. See BM 14.
2. With the hips remaining stationary at the surface, the back is arched more as the legs are lifted to assume **Vertical Position**.	**39.0**		2 Stability and maintenance of height as legs are lifted to BP 6 **Vertical Position**. Horizontal alignment of hips and shoulders 'square' and maintained during lift.
3. Two *Full Twists* are executed, . . .	**29.0 + 29.0**		3 See BM 12. Constant water level and smooth continuous rotation motion around the longitudinal axis. No pause after the first *twist*.
4. . . . followed by a *Vertical Descent.*	**14.0**		4. See BM 10.

SECTION III

ROUTINES

A. GUIDELINES FOR PRESENTATION OF ROUTINES

Several aspects of a routine presentation are not judging factors. However, they may subjectively affect the performance and how it is perceived by the spectators, judges and media.

Although judges are trained to evaluate only those aspects of a performance which are covered in the rules, at a subconscious level their score - especially for *Manner of Presentation* - may be affected by extraneous factors.

Following are guidelines which coaches and athletes should be aware of when presenting routines:

1. GUIDELINES FOR ROUTINE WALK-ONS

SS 14.1 Time limits for Technical Routines and Free Routines including ten (10) seconds for deck movement.

SS AG 6 Time limits for different age groups, including ten (10) seconds of deck movement.

SS 14.1.6 In routine events the walk on of the athletes from the designated starting point to achievement of a stationary position may not exceed thirty (30) seconds. Timing shall commence when the first competitor passes the starting point and end when the last competitor becomes stationary

SS 18.2.9 Stacks, towers and human pyramids are not allowed.

2. GUIDELINES FOR ROUTINE SWIMWEAR

GR 5 Swimwear

GR 5.1 The swimwear of all competitors shall be in good moral taste and suitable for the individual sports discipline.

GR 5.2 All swimwear shall be non-transparent.

GR 5.3 The referee of a competition has the authority to exclude any competitor whose swimwear does not comply with this Rule.

SS 13.6 In routines swimwear must conform to GR rules and be appropriate for Synchronised Swimming competitions. The use of accessory equipment, goggles or additional clothing is not permitted, unless required for medical reasons. Nose clips or plugs may be worn.

SS 13.6.1 In the event that the referee thinks a competitor(s) swimwear does not conform to GR 6 and SS 13.5, the competitor will not be permitted to compete until changing into appropriate swimwear.

In Synchronised Swimming public image is important. Appropriate swimwear enhances this image - inappropriate 'swimwear' detracts. Swimwear - that is swimsuits, headpieces and make-up - should reflect the athletic nature of Synchronised Swimming, and not be a costume more suited to a stage production.

Swimwear decoration should not include symbols which might be offensive to a particular culture or religion.

The wearing of jewellery is not allowed.

Excessive and unnatural make-up is often highlighted by close-up television shots, and detracts from any attempt to project an athletic performance.

Any possibility for inappropriate photographs or film footage should be avoided. Brief or high cut swimwear is not acceptable. The swimsuit should stay in place without riding up in the back to expose the buttocks; straps slipping off the shoulders; or suits slipping down in front. The swimwear style and colour should be appropriate to the music and the swimmer.

Technical Routines

It is recommended that for Technical Routines, swimsuits be one piece and with minimal adornment.

Headpieces may be worn, but should be minimal and unobtrusive.

Free Routines

Swimsuits should be one piece and not have excessive decoration, additional adornment, or added features which are not part of the actual suit. Such things as overskirts, aprons, fringes, tassels, collars and bow ties, etc. are undesirable.

Headpieces should be neat, not excessive in size or style, and in harmony with the suit and music. They should not cover any part of the face or neck.

3. GUIDELINES CONCERNING OVERALL APPEARANCE OF A COMPETITOR

- Headpieces should stay in place and not come loose in the water.
- Hair should be neatly styled and appropriate for the headpiece being worn. It should stay firmly in place, without messy stray pieces.
- Makeup should be appropriate to the athlete's age and maturity and not too dominant. Mascara should not run! Nor should the face be a 'mask' - such as a clown face; or white with a black tear on the cheek.

4. MUSIC CONCERNS

While the choice of music is not a judged factor, good music will always enhance the performance in the minds of ALL viewers. Poor music - in choice, quality or poor recording - will ultimately detract.

Selection and interpretation of music should not centre around themes or concepts which are distasteful or offensive to some cultures or religions. Death, horror scenes, hospital atmosphere or prison 'themes' are not suitable for an Olympic sport.

Poor music quality and packaging - especially in combination with excessive volume! – can have a very negative impact on how a performance is received. The music selected should be of superior quality, without hisses, pops, crackles, etc.

It should be a harmonious whole, with suitable and unobtrusive editing and a good blending of selections. Attempts to combine bits and pieces of unrelated music selections - sometimes in different keys; sometimes with totally different character; and sometimes in only 20 second segments - can be annoying and distracting. Even more disconcerting are poor cuts.

High quality music production at a Synchronised Swimming competition is essential to success and greatly influences how a routine is received by the spectators, media and judges.

SS 15 .1 The Sound Center Manager shall be responsible for the securing and properly presenting the accompaniment for each routine.

SS 15.2 For FINA competitions a decibel meter shall be used to monitor the sound level and ensure that no person is exposed to average sound levels exceeding 90 decibels (rms) or momentary peak sound levels exceeding 100 decibels.

SS 15.3 Competitors are responsible for individually labeling tapes and/or discs (Minidisc, CD or DAT) as to speed, name of the competitor, and country. Each competitor is entitled to a trial test of a part of her music accompaniment prior to her start to adjust the volume and speed. In case the tapes, Mini disc, CD or DAT are sent before the competition by the final entry date to the Management Committee, the Sound Centre Manager shall be responsible for execution of the music.

Here are some additional recommended guidelines:

1. The time of each routine must be listed on each DAT, CD or Minidisc.
2. The lead-in time for each routine should not exceed 5 seconds.
3. Each DAT or CD must contain only one recording of the music for one routine and must be clearly labeled with event, name(s) of competitor(s), country and time.
4. Each federation should bring a duplicate set of music accompaniments to the competition.
5. At World Championships and Olympic Games, each Head Coach or designee should arrange a meeting with the Music Controller prior to the first practice to check music speed, quality and volume.

B. FREE ROUTINES

1. FREE ROUTINE SCORING RULES

SS 17 JUDGMENT OF ROUTINES

SS 17.1 In Routines, the competitor can obtain points from 0 - 10 using 1/10th points.

Perfect	10
Near perfect	9.9 to 9.5
Excellent	9.4 – 9.0
Very Good	8.9 – 8.0
Good	7.9 – 7.0
Competent	6.9 – 6.0
Satisfactory	5.9 – 5.0
Deficient	4.9 – 4.0
Weak	3.9 – 3.0
Very weak	2.9 – 2.0
Hardly recognisable	1.9 – 0.1
Completely failed	0

SS 17.2 In Free Routine and Combination two scores shall be awarded 0 – 10 points each (See SS 17.1).

All the following percent arrays are subject to decision of the TSSC.

SS 17.2.1 First Score – Technical Merit Score

CONSIDER	SOLO	DUET	TEAM	COMBINATION
Execution of strokes, figures and parts thereof: propulsion techniques, precision of patterns.	50 %	40%	40%	40%
Synchronisation one with the other and with the music.	10%	30%	30%	30%
Difficulty of strokes, figures and parts thereof, patterns, synchronisation.	40%	30%	30%	30%

SS 17.2.2 Second Score – Artistic Impression Score

CONSIDER	SOLO	DUET	TEAM	COMBINATION
Choreography, variety, creativity, pool coverage, patterns, transitions	50%	50%	50%	60%
Music Interpretation, use of music	20%	30%	30%	30%
Manner of Presentation, total command	30%	20%	20%	10%

SS 17.2.3 In the Olympic Games, World Championships and World Cups, for the Free Routine and Combination sessions, each judge shall award three scores, from 0-10 points each (see SS 17.1). Technical Merit judges shall enter scores for Execution, Synchronisation and Difficulty. Artistic Impression judges shall enter scores for Choreography, Music Interpretation, and Manner of Presentation. The scorers shall calculate the Technical Merit scores of each judge (see SS 17.2.1) and Artistic Impression scores of each judge (see SS 17.2.2).

Example:
For the Olympic Games, World Championships and World Cups, the scorers shall calculate the total score for each individual judge by multiplying the judge's score for the component times the weighting for that component (see SS 17.2.1, SS 17.2.2 and 17.3.2). The component scores for the judge shall be added together to get the score for that judge (to two decimal places).

TECHNICAL MERIT EXAMPLE

JUDGE		**1**	
CAT	**%**		
E	**40**	9.4	**3.76**
S	**30**	9.5	**2.85**
D	**30**	9.4	**2.82**
			9.43

ARTISTIC IMPRESSION EXAMPLE

JUDGE		**1**	
CAT	**%**		
C	**50**	9.5	**4.75**
MI	**30**	9.5	**2.85**
MP	**20**	9.4	**1.88**
			9.48

2. EXPANDED MARKING SCALE FOR ROUTINES

TECHNICAL MERIT		
Execution	**Synchronisation**	**Difficulty**
Level of excellence in performing highly specialised skills.	*Movement in unison, one with the other, and the accompaniment.*	*Quality of being hard to achieve.*
PERFECT: 10		
Maximum result with apparent total effortlessness. Maximum height, accuracy, extension, flexibility & clarity; strength, power, endurance & efficiency in performance of all figures, transitions, propulsion and patterns.	Totally synchronised with the music and each other, above & below the surface. Absolute precision throughout, including timing of arm and leg actions and techniques.	Many complex combinations throughout cover ALL difficult elements. Intricate patterns; close spacing; frequent changes. Strong complex propulsion covering maximum distance. HIGH RISK! Intricate synchronisation.
NEAR PERFECT: 9.5 to 9.9		
Almost flawless, with only very minute deviations. Effort is not apparent. NB: 'Minute' errors or deviations They are seldom apparent to	Almost flawless. Minute errors. Slight variations in timing of kicks and/or transitions. are seen only by a trained eye. an uninformed observer	Minute deviations in difficulty level of propulsion, figures, transitions, patterns, risk moves, synchronisation, placement or distance covered.
EXCELLENT: 9.0 to 9.4		
A few minor errors. Strong & effective propulsion. Solid, high, accurate, clear/clean & efficient performance of all figures, risk elements, patterns and changes.	A very few scattered & minor errors. Generally sharp & precisely with the music. Most timing errors occur beneath surface. Some loss of unity of motion between body parts and music.	Most difficulty components present. A key element may be absent - e.g. extreme flexibility. Minor lapses in intensity, movement, complexity. Some high risk elements.
VERY GOOD: 8.0 to 8.9		
At upper end, shows ability to achieve excellence part of the time. No major errors. Some strain evident in difficult parts, especially in final third. Mostly fluid. Some instability. Propulsion generally effective.	Minor errors. Precision of timing slightly 'off'. Positions achieved on time, but transition timing off. Mostly together.	Difficulty limited to elements in which swimmers are most comfortable; easier combinations more widely spaced. Less complexity overall. May contain an obvious rest spot or cover less distance.
GOOD: 7.0 to 7.9		
Figures usually clear & fairly high in easier parts. Height sometimes unstable. Most patterns clear. Power/height/ propulsion may deteriorate. Effort evident in some sections.	Synchronisation with music & each other generally 'OK', but could be crisper & more precise. A few obvious errors but most errors are minor.	Some medium difficulty scattered throughout. Fewer & easier combinations. Most difficulty may be in first half. Less complexity or effort to cover maximum distance.

TECHNICAL MERIT		
Execution	**Synchronisation**	**Difficulty**
COMPETENT: 6.0 to 6.9		
Variable performance. Positions, transitions, patterns have significant errors. Swimmers move but without power or efficiency. Height is medium at best and unstable throughout. Patterns & transitions are sometimes not clear.	Significant errors & differences in timing. In teams, one or two may be noticeably 'out'. Lacks clarity & sharpness in many sections.	Shorter, simpler hybrids. Lots of single leg verticals & one arm eggbeater. Simple stroke combinations. Easy pattern changes, many underwater. Lots of time allowed for visual checks during any change. Rest spots. Less travel attempted.
SATISFACTORY: 5.0 to 5.9		
Patterns & figure positions are recognisable, but often inaccurate and/or undefined. Many minor errors; some major. Pattern changes are scrambled & inefficient. Most propulsion is ineffective. Overall quality of execution is erratic. Height generally low.	Moderate to major errors. Timing often blurred, with unity of body. movement attempted but not achieved. No effort to synch underwater.	Only short/easy figures. Basic stroking combinations. Simple patterns widely spaced with few changes. Risk elements limited to those which don't require height - eg. floats. Minimal use of complex actions. Basic 1-2-3-4 count timing throughout No complex movements.
DEFICIENT: 4.0 to 4.9		
Struggling throughout. Many major problems. Easy parts may show some control and accuracy. Propulsion often strongest element. Float level height.	Attempt to synch, but more 'off' than 'on'. Little relationship between limbs, head, body & music. Many major errors.	More stroking/propulsion than Figures. No verticals. Few patterns & held a long time.
WEAK: 3.0 to 3.9		
Most positions & patterns lack definition & are uncertain. Propulsion is weak/inadequate. Goes nowhere. Messy & unclear.	Seldom together. Little relationship of actions to music.	Basic strokes & sculls with simple short figures like somersaults and sailboats. Most difficult figure attempted may be a Ballet leg. Basic patterns with infrequent changes.
VERY WEAK: 2.0 to 2.9		
All positions, transitions & patterns unrecognisable. Totally lacking. Swimming skills not evident.	Little attempt at synchronisation. Music is background.	Tubs, layouts, simple sculls & strokes. A lot of floating.
HARDLY RECOGNISABLE: 0.1 to 1.9		
Completely lacking any ability or routine skills.	Why have music?	

ARTISTIC IMPRESSION		
Choreography	**Music Use & Interpretation**	**Manner of Presentation**
A balance of creative and technical elements to form a total routine.	*A blending of movements and music into a oneness of expression.*	*The manner in which the swimmer(s) present(s) the routine to the viewers.*
PERFECT: 10		
Captivating & creative. Cohesive whole with logical structure. Continuous flowing movement. Balanced mix of wide variety of elements staged for maximum effect. Many patterns with fluid. frequent, logical changes. Covers all areas of pool.	One with the music. Movements used obviously require THIS music throughout. Swimmers express both obvious and subtle qualities of the music, and take advantage of ALL the musical elements to achieve an emotional impact.	TOTAL COMMAND, compelling attention. Projects personality & involves viewers in the feeling of the routine. Charismatic. Completely poised & confident. Each performance appears fresh & spontaneous. Total body used for expression.
NEAR PERFECT: 9.5 to 9.9		
Memorable routine containing only minute deviations to mar the overall effect.	Expressive interpretation with actions convincingly suited to music. Exceptional use of moods; subtle & powerful qualities of music. Memorable moments from superior interpretation of special parts. Strong emotional impact.	Hard to imagine others swimming this routine. It is uniquely captivating & special to them.
EXCELLENT: 9.0 to 9.4		
Impressive routine but minor lapses prevent it from being 'special'. All components are present and well designed, but may lack uniqueness or complete overall cohesion. Some well placed unusual or surprising moves.	Some minor lapses in intensity and completeness of use and interpretation of music. Strength of impact not maintained throughout. Most parts have a strong impact on the viewer.	Confident and appealing, but has occasional minor lapses in projection and focus.
VERY GOOD: 8.0 to 8.9		
Pleasing routine. Strong choreography, but tends to have gaps in creativity. Somewhat predictable & lacking in variety. Key elements may be poorly placed. Some parts may lack flow.	Attention paid to mood and pace. Expresses many musical elements but misses some opportunities for complete expression. Good use of obvious accents.	Confident but careful. Body language limited to face, head and arms. Lacks emotional energy. Occasional lack of focus.
GOOD: 7.0 to 7.9		
Few creative moments. Mostly standard actions. Balanced but lacking in diversity. Pool coverage may miss some areas. Little complexity.	Action generally fits music but with uninspired actions. Good effort but needs emotional appeal.	Focus & confidence 'on-off'. Some command. Trying, but lacks conviction. May lack physical and/or emotional energy.

ARTISTIC IMPRESSION		
Choreography	**Music Use & Interpretation**	**Manner of Presentation**
COMPETENT: 6.0 to 6.9		
Predictable & ordinary, but basic solid choreography is evident. Routine moves; most of pool area is covered; patterns change but not often. Content is limited by ability level of swimmers. Minor highlights.	Tends toward a generic interpretation of obvious melody or rhythm. Attempts to explore contrasts/changes, but doesn't succeed. Little attempt to project mood.	Tentative. Best effort is a pasted-on smile. Avoids eye contact. Evidence of some planned outward focus, but tends to be more 'off' than 'on'.
SATISFACTORY: 5.0 to 5.9		
Mostly common basic actions & patterns. Awkward transitions & little flow. Unbalanced pool coverage. Key elements poorly placed. Content limited & repetitious.	Mechanical. Predictable actions for easy-to-use accents. Safe functional use of the obvious beat. Some actions may bear no relationship to the music.	Visibly self-conscious and nervous. Most focus is inward, concentrating on performance of skills. Little effort at projection.
DEFICIENT: 4.0 to 4.9		
No variety or creativity. Limited to simple basics. Standard actions in generic flow. Simple basic patterns. Poor pool coverage.	Attempts to perform to the beat, but mood and character ignored.	Look scared. Barely acknowledge viewers. Occasional strained smile. Tense & rigid bodies.
WEAK: 3.0 to 3.9		
Sparse series of simple basic skills interspersed with elementary propulsion techniques. Some attempt at patterns & planned movement.	Actions have little relationship to music. Mostly background.	Wooden & nervous. Almost total inward focus. In Duet & Team, look more at each other than at the viewers.
VERY WEAK: 2.0 to 2.9		
Little evidence of plan or structure. A sequential performance of simple actions. Minimal co-ordination.	Any music could be used. No interpretation attempted.	Awkward. Only attempt at presentation is the costume.
HARDLY RECOGNISABLE: 0.1 to 1.9		
Shapeless, senseless & totally disorganised.	Swimmers are oblivious to the music.	Just attempt to swim. Appear unaware of surroundings.

3. AN INTRODUCTION TO JUDGING FREE ROUTINES

A. GENERAL OVERVIEW

The most difficult aspect of training a Synchronised Swimming judge is learning how to judge routines. It is the most difficult aspect because there are more variables to consider and potential judges have such varied backgrounds. See how differently the following judges might initially evaluate a routine:

Judge A - background - former World Class swimmer
Judge B - background - classical music major
Judge C - background - interested parent

It is therefore important that the trainer of judges makes certain that the judge is trained to be as objective as possible. The ultimate in this regard is to free the judge of her/his own prejudices and/or limitations so that he can become a fair, objective judge who can evaluate a routine without any predisposition.

In addition to the examples previously given, it is extremely important that the judge evaluate the swimmer(s) using the judging criteria as "defined in the rules". The judge will assign a score for each component of the Technical Merit and the Artistic Impression scores.

B. TECHNICAL MERIT

Technical Merit is the level of excellence demonstrated by the swimmer's mastery of highly specialised skills. The Technical Merit score covers three areas: Execution, Synchronisation and Difficulty.

1. Judging Execution

a. Strokes and Propulsion Techniques should have a maximum result with a minimum of effort; in a word - efficiency. The swimmer who has excellent stroke and propulsion techniques will:

- be high in relation to the surface of the water
- be smooth and effortless in movement
- use an appropriate kick with the strokes performed

Rotary kick (eggbeater) - this technique is very important in Synchronised Swimming. Its primary use is as a support technique in connection with arm movements. It is used for propulsion when the body is upright and/or moving from the vertical to horizontal plane or vice versa. It may also be used for propulsion sideways. Whether it is used to move the body

forwards, sideways or backwards, the execution should be such that the body is carried high and moves smoothly, without any bouncing. It should not be used in lieu of the proper kick when performing standard swimming strokes. When this does occur, the effect will be an awkward looking stroke that is not efficient and detracts from the performance.

In evaluating the strokes and propulsion techniques, the judge needs to be aware of the endurance level of these skills. Very often the strokes, etc. begin on one level and as the routine progresses, they drop. The judge therefore needs to be aware of the height, strength, and power of the strokes and propulsion techniques throughout the routine. A top level swimmer is expected to maintain the highest quality of execution of her strokes and propulsion techniques from start to finish.

One problem that the judge frequently faces is that many competitors work to achieve a high degree of skill in figures, but do not develop the strokes to the same level. To be excellent in Synchronised Swimming, the competitor must be an excellent swimmer. The judge must evaluate the swimming strokes and propulsion techniques and consider this evaluation when awarding the overall grade for Technical Merit.

In duets and teams, the accuracy of matching the degrees of the angles of the arms, legs, etc. is considered under the execution portion of the Technical Merit mark.

b. Figures and Parts Thereof

Earlier in this manual, detailed attention has been given to the judging of the component parts of figures. All of the basic principles apply when evaluating the figures or hybrid figure movements executed in a routine.

All figures, be they standard or hybrid, have a beginning, middle and end. There is a tendency by some to cut-off the endings of figures. This phenomenon is particularly true on vertical descents. When this occurs, a deduction is made under the execution portion of the Technical Merit score. If this occurs repeatedly in a routine, then a deduction would also be made under the choreography portion of the Artistic Impression score.

As you go down the scale of excellence, the desired elements will be less by degree and in some cases non-existent.

Efficiency is also important in judging figures and/or parts thereof. The swimmer should be high, smooth, precise and effortless in executing positions, movements, and transitions. A common error is to attempt to perform at a higher water level than the swimmer is capable of smoothly controlling. The excellent swimmer will demonstrate a high degree of strength, as well as proficiency of technique. The competitor that has achieved this high balance between strength and technique will not need

any extraneous arm actions to execute the figure or hybrid movement. Indeed, when the swimmer has achieved this, very difficult figures will be made to look easy. The ultimate is to 'finesse' the movement.

c. Precision of Patterns

The accuracy of the patterns is extremely important in the team event. When the patterns are executed with precision, the overall effect will be sharpness and clarity of purpose. The spatial relationships between the swimmers will be exact. When the position is asymmetrical, it will be clearly demonstrated.

A lack of precision in the execution of patterns will create a 'fuzzy' impression not only of the pattern but the routine as a whole.

2. Judging Synchronisation

Synchronisation is the act of swimming or executing movements in unison, one with the other and the accompaniment.

a. One with the other - members of a team and/or duet should be perfectly synchronised from the start to the finish, including movements under water. All body positions, movements, and transitions should be perfectly synchronised. The swimmers should be synchronised above, at and below the surface of the water.

b. With the accompaniment - synchronisation with the music should be evident within the latitudes described in the Interpretation of Music section.

There are two types of synchronisation errors. The first is when a swimmer is very obviously off the beat of the other swimmers. The second is when the swimmers are basically but not sharply synchronised, often throughout the routine.

3. Judging Difficulty

Difficulty is the quality of being hard to achieve.

This area of routine judging is complex. It is very important for the judge to understand all the factors affecting difficulty.

a. Figure movements may be difficult because of the strength, kinaesthetic awareness, and/or technique proficiency required to execute the figure.

(i) Strength - force required due to the amount of airborne weight to be supported and/or movements which place a great deal of stress on any given muscle group. Example: Ballet Leg

(ii) Kinaesthetic Awareness - the ability of the individual to know the spatial relationship of her body parts. Example: Dolphin

(iii) Technical Proficiency - movements which require the mastery of a specific technique for their execution. Example: Spins

To achieve a high level of performance in a given figure or figure movement, all three of the above factors are interdependent. Difficult figure sequences are those that:

- have multiple changes of the position of the spine
- require the mastery of multiple techniques
- place stress on the cardio-pulmonary system
- have a changing centre of gravity
- have a high percentage of the total body weight lifted and/or supported above/over the surface of the water
- require an extreme range of flexibility

b. Strokes that are difficult require constant movement, power and make demands on the cardiovascular/pulmonary systems.

Double arm movements above the water increase the difficulty of the propulsion techniques. Strokes may also be difficult due to the complex combination of changing angles of the arms.

c. Patterns - teams that demonstrate a variety of pattern changes increase the difficulty of their routine because of:

(i) the need for multiple changes within each portion of the routine.
(ii) the changing spatial relationship of the swimmers to each other.

The following patterns are difficult for a team to perfect:

- straight and/or diagonal lines
- circles and/or curved lines
- patterns that are relatively close together
- surface changes
- pass through patterns
- blind patterns

d. Placement - outstanding swimmers will be able to execute difficult movements in the last portion of the routine with the same degree of proficiency and effortlessness as executed in the beginning.

e. Synchronisation - may contribute to the difficulty of a routine because of:

- the type of movement used
- the type of music used
- how the music is used, in general performing all movements together is more difficult but this is not an absolute. Examples: quick, complex cadence actions require split second timing which is difficult, a four and four matching of descending and ascending spins

f. Risk Factor - When the swimmer[s] executes skills that expose them to the chance of a lesser performance. Such factors are very obvious when missed. For example:

- Team event: blind pattern changes; a moving lift, especially when the top swimmer is moving; stacks, throws, etc.
- Duet event: a connected move, especially when it is moved into from a blind move
- Solo event: a rocket followed by a slow descent; a rocket followed by a rapid continuous spin.

Risk factors performed well will give a routine highlights and leave the public with memorable moments of the routine.

C. ARTISTIC IMPRESSION

Artistic Impression is an effect, image or feeling retained as a result of the demonstration of the skill and good taste of the swimmer. The Artistic Impression score covers three areas: Choreography, Interpretation of Music, and Manner of Presentation.

1. Judging Choreography

Choreography is the art of creating and arranging routines.

Choreography is a very personal thing between the coach and the swimmer(s). It is extremely important for the judge to have an 'open mind' and the ability to appreciate a variety of styles, even though she/he may prefer one style over the other. When evaluating the choreography, the judge must consider the following areas:

a. Variety - diversity, assortment. The condition of being diverse.

The swimmer should demonstrate a variety of body positions, figure movements, strokes, arm movements and propulsion techniques to demonstrate proficiency in the various Synchronised Swimming skills. When demonstrating these skills, it is desirable to use a variety of levels of space. The swimmer should show a balance of strokes, figures and propulsion techniques appropriate to the music. It is not necessary to include every skill, and some repetition may enhance the performance.

b. Creativity - the act of being original or imaginative.

The judge evaluates the creativity in terms of the use of the body in hybrid figures. This is however but a part of the consideration. The judge also considers the originality of the arm movements and pattern formations. In duets and teams, the connection(s) between swimmers may also add to the creativity of the choreography.

The routine may also demonstrate a creative use of the music. This refers to using the music in an appropriate manner but other than the expected stereotype for the music used.

c. Pool Coverage - the pathway the swimmer(s) take through the water.

The well choreographed routine will be constantly moving and cover the pool. In the routine with good pool coverage, the swimmer will avoid extended periods of time in a small area of the pool.

d. Patterns - the formations made by the spatial relationship between the members of the team.

The choreography of the patterns (and the subsequent execution of them) will contribute greatly to the success of a team routine. The team should demonstrate a number of pattern changes. Top teams may have five to seven changes per lap (25meter pool). Patterns should be held or 'locked' into position long enough for the judge to observe the design. Lower level teams will have a tendency to stay in a given pattern for an extended period of time, which is not desirable.

e. Transitions - connecting movements which enable the swimmer to change from one position to another; one pattern to another; stroke to figure, etc.

It is the choreography of the transitions that will determine the flow of the routine. The higher the level of the swimmer, the more important the transitions become. Transitions should be seamless.

In the team event, the transitions into and out of patterns may flow to such a degree that the judge is not aware of how the pattern change occurred. In a simply choreographed routine, the judge may observe a number of stops between movements. Done occasionally, this may create a good effect; when overused it is a deficiency.

2. Judging Interpretation of Music

Interpretation of music is a concept of the music expressed by the performance of the swimmer[s]. Use of music.

Use of the Music should be judged with an 'open mind', allowing for the widest latitude of individual interpretation. The Use of Music is how the swimmer(s) uses the structure of the music. For example:

- some swimmers use the underlying beat
- some swimmers use the melody
- some swimmers use the musical accents
- some swimmers may use a combination thereof

The interpretation of the music involves the swimmer(s) attempting to express the character or mood of the music. Two different swimmers may feel the same selection of music quite differently and equally well. This is acceptable; the problem occurs when an interpretation of the music is at odds with the character of the music.

In the solo event, when use and interpretation of the music are done to perfection, it will appear as if the soloist and her music are one. It is as though the music was written for her.

The judge may prefer certain ways to use and interpret music, but this should not influence their judging. It is not a question of whether the judge likes the interpretation and use of the music, but whether or not they are well-done.

3. Judging Manner of Presentation

Manner of Presentation is the way in which the swimmer[s] presents the routine for the inspection (or consideration) of the public (audience and judges); total command and amplitude.

The swimmer(s) should demonstrate that she is in total command of her performance, involving the total swimmer (inner and outer self). The impression is one of a richness of movement, with the swimmer "owning the water."

This completeness requires a high energy level, both physical and emotional throughout the performance of the routine. When the swimmer(s) demonstrates this ability to perfection, the public will be drawn into the performance.

4. JUDGING FREE ROUTINES

Synchronised Swimming routine judging may be more difficult than any other sports judging task. Even with judging split between two panels, one for *Technical Merit*, the other for *Artistic Impression*, each judge has more elements to evaluate simultaneously and continuously throughout the routine than judges for any other sport. Now with scores to be given for each of the three component parts of these two score, reliable analysis can only be made by a judge who is well prepared, who has become thoroughly familiar with each of the categories and elements to be analyzed, and who has developed a valid scale of excellence to apply to each. The judge must apply those scales utilizing the criteria as objectively as possible.

Among the great diversity of regional customs, attitudes and 'styles' that have developed across the world, each of us, due to training and experience, may find some that are more familiar or more enjoyable than others. Those experiences may have produced a keener sensitivity to some judging elements than to others. Thus a dance or music teacher could look at the routine quite differently from a swimming or diving coach. Former athletes tend to view routines from their own experience and parents often see routines differently than coaches and judges. Our own experiences may influence our manner of dealing with the 'overload' of numerous and simultaneous evaluations to be made in judging routines, but the judge must grow out of such limitations. Before being trained in proper analytical criteria, the scores given can be as divergent as backgrounds. With training and conscientious application of standards, all judges should be able to produce reliable and valid scores.

The status we seek:

Knowledgeable and objective judging by application of the designated criteria, free from prejudice and preconceptions

5. JUDGING TECHNICAL MERIT

Technical Merit evaluates the skill of the competitor. Judging *TM* may appear to be a simple step up from figure judging, but it is far more complex. Even though many of the criteria applied in figure judging are also used in the *Execution* portion of the *TM* analysis, additional criteria must be developed and applied for the strokes, figures and actions that have no counterpart in Figure judging. Evaluations of *Synchronisation* and of *Difficulty* must be made simultaneously. Properly evaluating all the *TM* categories and keeping each in its assigned weighting is a challenging and daunting task.

6. JUDGING EXECUTION

Simply put, *Execution* is how well the competitor does whatever is done. The Execution score is the major part of the Technical Merit score, counting for 50% in Solos and 40% for Duets and Teams. Judges need to remember that half, or almost half, of the total *TM* score is based on how well the competitor is able to execute every action - strokes, propulsion techniques (sculling and kicking), figures and hybrids, transitions, boosts and jumps, stacks and lifts, platforms, floats, patterns and pattern changes. Execution includes what is done at, above and below the surface of the water.

Judges Consider:

1. EXECUTION of strokes and propulsion techniques.

- **Maximum efficiency with minimum effort**

Judges look for efficient, effective strokes and kicks. This includes smooth flutter kicks with front crawl and backstroke (no knees breaking on backstroke), appropriate kicks with sidestroke and breaststroke, and efficient eggbeater with all vertical position stroking.

- **Well-defined lines**

Arm positions should be well defined, extended when appropriate, with clear angles of arms and hands. Head and shoulder positions should be well defined for strokes and in alignment for sculling. Stroke entry into the water should be efficiently completed. Lack of sharpness and accuracy in Duets and Teams must be considered an *Execution* error and not poor timing.

- **Height**

Strokes with eggbeater kick should have shoulders and armpits well above the surface. Crawl and backstroke arms should be lifted cleanly from the water. All horizontal stroking should have the body at or near the surface with the feet just below the surface.

- **Strength, power, energy level**

Stroking, kicking and sculling must be strong and powerful to provide strong support for weight held above the surface of the water and for efficient, effective propulsion throughout. There should be evidence of a high energy level with no loss of power, speed or height throughout the routine. A measure of strength and power of a routine's propulsion is the distance it covers - at senior level, usually 20-30 meters per minute of choreography.

- **Smoothness and effortlessness**

All strokes, kicking and sculling should be smooth and seemingly effortless throughout, without bouncing, jerkiness or splashing unless clearly intended otherwise in the choreography.

2. EXECUTION of figures and hybrid figures.

The criteria given above for judging strokes and propulsion techniques may be applied to routine figures and hybrids along with those for judging figures in the figure section of this manual, and, as outlined below.

- **Height - as high as possible would be the ideal for the majority of figures**

  - Ballet leg figures, the body near horizontal with the thigh high above the water level
  - lifting and unrolling figures: water line near suit level
  - twists in Crane position: back of horizontal leg at or above the surface
  - twist in Bent Knee Vertical Position: suit at crotch level or higher
  - twists in Vertical Position; a hand width above knee cap or higher
  - Rocket and thrusting figures: to the waist and higher

- **Extension, full body extension throughout action**

Where appropriate to the figure, the knees, ankles, feet and toes should always be fully extended with no relaxation of extension during any part of the execution. Horizontal and vertical alignments need to be exact [head (ears), hips, and ankles in line].

- **Well defined lines and movements:**

Judges need to look for the accuracy of all lines and positions considering them in the same manner as for figure competition. Look for the horizontal and vertical lines, accurate pike and compact tuck positions, wide split position [full 180E], correct ballet leg, bent knee, crane and fishtail positions, etc. In all hybrid actions, there should be precise body and limb positions with angles well defined.

- **Strength, power, and energy level**

Athletes must demonstrate strength and power necessary to provide support for any weight held above the water, for lifting and thrusting actions, and for stability in all figure positions and movements. The energy level must remain high to control and maintain the actions with consistent tempo throughout.

- **Smooth and seemingly effortless movements**

Ease of motion and seemingly effortless action, must be shown in all positions, movements and transitions, from beginning to end.

3. EXECUTION of transitions

Transitions are judged by the same principles as those guiding the judgement of stroking, propulsion and figures. Whether from stroke to figure, figure to stroke, within a figure, or the changing patterns in a duet or team, all transitions should flow from start to finish - smoothly, logically and effortlessly. They should be efficient and purposeful.

- **Strength and power**

  Look for sufficient power and strength to maintain or achieve desired body levels during transitions. For example, during twists, crane joins, split to join, etc. the height level should remain constant. Look for strength and power during changes in stroking and moving into figures.

- **Stability and control**

  There shouldn't be any excessive, extraneous movements, unplanned travel, loss of control, extension or height during a transition. Tempo should be consistent (except when for choreographic effect) with clear, fluid motion from start to finish. Action should flow from stroke to figure and figure to stroke, with no loss of height or efficiency. Body lines must be maintained with seemingly effortless motion within transitions. Descents must be completed through the surface until the toes are under, with clearly planned underwater movements to return to the surface.

- **Smoothness and effortless action throughout**

  Fluidity must be seen through all transitions. The most effective transitions are those hardly perceived by the viewer and are accomplished so smoothly and naturally they are finished before one is aware what has happened.

4. EXECUTION of patterns and pattern changes

In this element the judge does not consider the types, number, or difficulty of the patterns - only the excellence of their performance.

- **Clear, precise formations, easily identified**

  The pattern shape must be easily identifiable, with accurate positioning of the athletes in relation to each other and to the pool space.

- **Maintenance of the pattern shape**

  Athletes must maintain the pattern formation while moving and performing figures and hybrid actions.

- **Well defined, efficient pattern changes**

  All pattern changes must be well defined, logical and efficient - both surface changes and those made underwater. There should not be long underwater swims or excessive time taken to reach new positions.

5. EXECUTION of risk moves - platforms, stacks, lifts, throws, and floats

Execution of these actions is judged by the same principles as those guiding other elements. The judge must be cautioned to evaluate the whole action, from set-up to completion, and not just the final product. Judges evaluate the position achieved; or the stable platform with 'statue' in control on top. Stacks, lifts and throws must clearly demonstrate height, timing, control with an efficiency of movement. Floating actions must show accurate positioning and control.

- **Clearly defined**

  These special highlight movements must be clear and easily recognisable; shown long enough to be understood and show a definite completion or finish to the action.

- **Minimal set-up and recovery time**

  Minimal time should be given to the set-up and the completion of the action. Both should be achieved without an underwater scramble or struggle.

- **Stability in achieving and maintaining position(s)**

  There should not be any 'falling off' or loss of balance, or failure to achieve a lift or throw, or to connect in a float, or on any such movements attempted. All are part of the execution of the action and must be considered in the *Execution* score.

- **Height where appropriate**

  Effective 'throws' and lifts will often achieve great heights, with athletes rising cleanly to appropriate levels, often well above the surface.

6. EXECUTION of the total routine Judges must remember that the *Execution* score is for the total routine. In some cases, fatigue may degrade execution as the routine progresses. The judge needs to consider whether the athlete maintained the same excellence from beginning to end and ensure the score reflects the overall routine and not let a problem at the end or in the beginning or middle, become a major determinant for the total *Execution* award. Consider the failed or poorly executed portion by the approximate length of time it consumed of the total routine.

Judges must be cautioned to not allow the Execution score to influence either their scores for Synchronisation or for Difficulty. Each must be considered separately, in relation to its percentage value in determining the overall Technical Merit score.

7. JUDGING SYNCHRONISATION

To synchronise is “to make things happen at the same time”- “to be in unison.” Because it is easy to detect failure of a swimmer to act perfectly in unison with others, *Synchronisation* may be one of the easier categories to judge. The judge must take precaution, though, not to allow that simplicity to lead to its domination of the *Technical Merit* score. In Synchronised Swimming, not only should the swimmers’ movements be in unison with each other, but their actions must also be in time with the accompaniment.

For a Solo, the latter is the only form of *Synchronisation*, so it can only be more loosely defined. Actions may be coordinated with the music's rhythm, melody, accent points, or simply represent its mood. It is counts for only 10% of the solo *Technical Merit* award. Even for that, the judge may have to rely on evaluating whether there were major deviations from the tempo or feeling of the music, or obvious failure to match actions with a musical accent or highlight.

The value of *Synchronisation* rises to 30% for Duets and Teams due to the need for, and the difficulty of precisely coordinating two or more swimmers. Evaluating Duet or Team synchronisation to the music is aided by a tendency to use music with fairly strong rhythms to simplify timing for the actions. If the music is difficult to understand, credit must be given under *Difficulty* in synchronisation.

Speed and complexity of action may affect the ease of evaluating *Synchronisation*. Errors in slow actions may be more easily detected than in rapid sequences, but fast and complex actions may generate more errors. Occasionally errors in execution, such as different angles arms or legs in motion may appear as a lack of sharpness, a picture slightly out of focus, and may be mistaken for a synchronisation problem.

Spacing may affect spotting errors due to the difficulty of simultaneously tracking widely spaced swimmer action. Often swimmers act separately or in groups by choreographic intent. Precision in the timing of separate actions is the factor which makes them effective. Sequential and peel-off actions must be seen as clearly intended in the choreography. Their teamwork should be apparent, .not leaving possible questions about whether an error might have occurred.

Judges Consider:

1. SYNCHRONISED with each other

In this element, all movements must be shown with clarity and precision. Judges note this includes ALL movements - at, above, and below the surface.

- **Stroke and figure movements**

All movements must be accurately timed through their entire path, from initiation through completion. All descents move at exactly the same pace through submergence. All spins and twists revolve identically.

- **Underwater**

Actions matched as much as possible with tuck-outs at the same time, kicks on the same beats [breast and side kicks especially] and arms synchronised in support sculls and spin actions.

- **Return to surface**

Surfacing actions matched as much as possible, with the designated body part breaking the surface simultaneously or at clearly designed times.

- **Floats, stacks, lifts, throws, platforms**

Whatever the action, it must be achieved at the precise moment or clearly designed intervals.

2. SYNCHRONISATION with the music

Synchronisation to the music can only be loosely defined since it may be coordination with the rhythm, the melody, or even its accents. Caution must be taken to avoid making the *Music Interpretation* element of *Artistic Impression* and *Synchronisation* with the music one and the same.

- **Types of synchronisation**

The judge must consider whether the synchronizing of the routine is to the rhythm, melody, accents or highlights and whether there is synchronisation with the special effects in the music which are used for spins, rockets, boosts, stacks, lifts and throws.

- **Tempo and tempo changes**

Action should be related to the music's tempo and whether changes of pace of the movements are made as the tempo changes.

- **Clear actions matched throughout**

All actions should be clearly supported by the qualities of the music. Sequences and peel-offs must be exactly timed to the music..

The key to excellence in synchronisation is the harmonious blend of the swimmers with the music and with each other.

8. JUDGING DIFFICULTY

Difficulty is justifiably, a large part of the *Technical Merit* score, counting 40% in Solo and 30% for Duets and Teams. The difficulty level of a routine is a test of the swimmer's skill level. In evaluating *Difficulty*, the judge determines the magnitude of that challenge for the competitor. The best routines will include actions of high level difficulty distributed throughout the routine from beginning to end. When athletes meet the challenge with demonstrations of excellent execution of difficult actions, full credit must be given. Analysis of the routine must always determine whether the execution performance may have devalued the difficulty. For example, a full twist at mid-calf height cannot be credited with the same difficulty as a full twist with a water level above the knees.

Judging the difficulty of a routine is a complex task requiring a high level of knowledge and experience. The knowledge and understanding of factors governing the relative difficulties of various figure transitions must be applied to the analysis of all kinds of actions in the routines, not just the figures. Judges must also consider the difficulty of all strokes and propulsion, figures and hybrids, transitions, risk movements, patterns and pool coverage.

Judges Consider:

1. DIFFICULTY of strokes and propulsion techniques

The difficulty of strokes and propulsion is related to the amount of energy, power and strength needed to perform the movements, as well as their complexity.

- **Energy required for movements:**

Difficulty increases as stress is placed on the cardiovascular system through the demands of the routine such as the:

- tempo (quick paced more demanding)
- amount of travel (distance covered)
- speed of travel
- routine content (maintaining height, underwater time, number of difficult actions closely spaced in time)

- **Power and strength needed**

Moving powerfully and continuously throughout the routine is more demanding than a routine with significant resting spots. Strong propulsion should be evident when slower tempos are used.

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- **Airborne weight**

The height of strokes and amount of weight held or carried above the surface adds significantly to the difficulty. Arms should easily clear the water in horizontal stroking, with the body near or at the surface. In all eggbeater stroking, shoulders and armpits should be well above the surface level. Sustained strokes at maximum height are more demanding than quick, moving strokes.

- **Flexibility required**

Strokes which require an extreme range of flexibility - such as those with the extended arm behind the shoulder line - are difficult to achieve due to the extreme flexibility needed. Figure parts that require maximum flexibility, such as the 180 degree split at the surface, are difficult.

- **Complexity of the actions**

Very rapid, multiple quick movements to change arm and hand, leg and foot positions, add difficulty.

- **Proximity of swimmers**

Close spacing of swimmers restricts their freedom of movement and creates water turbulence and currents which can add to the difficulty of the action.

2. DIFFICULTY of figures and hybrids

The difficulty of figures and hybrids is related to the amount of energy, power and strength needed to perform the movements, as well as the number and complexity of the combined actions.

- **Power and strength requirements**

Power and strength are needed to:

- lift to airborne positions

Examples - Back Layout to Ballet Leg

- Porpoise lift
- Flamingo unroll
- Crane join to vertical
- support airborne weight without loss of height

Examples - Twists

- Catalina rotations
- Hybrid figures with multiple action changes.
- execute planned travel during performance of a figure or hybrid
- traveling Ballet Legs combinations
- moving Crane positions
- combination moving hybrids

- **Height Achieved or Sustained**

All actions are more difficult when performed and sustained at maximum height levels.

- **Amount of body out of the water**

Difficulty is increased by having more body parts out of the water at the same time.

Examples:

- Double Vertical is more difficult than a Bent Knee Vertical
- Both arms above the surface in eggbeater is more difficult than a single arm.

- **Kinesthetic awareness [body sense] requirements**

Difficulty increases as the need for body awareness increases

Examples:

- location of the body in space needs as in Dolphins, Somersaults and rotations
- changing body alignment (particularly in the spinal cord) as in the Gaviata, Castle, Nova, Aurora, and Knight
- changing body position in hybrids such as open rotations and off-angle positions.

- **Flexibility requirements**

Difficulty increases with the inclusion of actions which require an extreme range of flexibility, such as Walkouts, Nova lift, Aurora and Knight.

- **Complexity requirements**

Difficulty increases with the inclusion of:

- complicated hybrids which contain many parts
- elements which require a mastery of specialised skills, such as spins, thrusts, rotations and rockets.

- **Proximity of swimmers to each other**

Close spacing of swimmers restricts their freedom for movement and creates water turbulence and currents which can add to the difficulty of the actions.

- **Length of time underwater**

Evaluation of the difficulty of long sequences should rest primarily upon the inherent complexity and physical stress of the sequence of actions and not upon the length of time underwater. Accumulative cardiovascular stress will increase the difficulty of performing even simple actions but length of time underwater should not be considered a primary generator of difficulty.

Judges need to look for difficult actions, one following the other. For example, double leg vertical twists performed well above the knees and rockets that rise to great heights, both of which may be followed by multiple spins, followed by boosts that get the entire suit out of the water, followed by fast, complex stroking. Such actions will stress the cardiovascular system far more than longer stable actions that require little strength, power or movement. Look for the other difficulty factors rather than the length of time underwater.

3. DIFFICULTY of the transitions

Difficulty in transitions is judged by the guidelines given earlier. Efficient, purposeful, and effortless action is desired. Transition difficulty for Patterns and for Risk Movements are listed separately below.

4. DIFFICULTY of the pattern formations

Patterns become more difficult by increasing the number of patterns and types of changes made along with the changing spatial relationship of the swimmers.

- **Type of Pattern:**

Some patterns are more difficult to achieve and maintain than others. These include:

- straight lines
- diagonal lines
- curved lines
- circles.
- Complexity and changing requirements of the pattern increase difficulty
- moving patterns are more difficult to maintain than stationary
- pass through patterns are difficult to achieve with accuracy
- closely spaced patterns are more difficult to achieve and maintain due to the restricted freedom of the swimmers.

- **Number of pattern changes**

The number of pattern changes made effectively increases the difficulty with more changes being more difficult. Some teams may have 5-7 or more per length. At the 1996 Olympic Games, the average number of pattern changes in Free Routines was 28 which equates to a change occurring every 10 seconds. Look for continually changing patterns that lock into position and then move on to the next. Look for clarity of each pattern.

- **DIFFICULTY in establishing formations**:

Effective surface changes are usually more difficult than those executed underwater, particularly when swimmers move in different directions. Long underwater swims may be harder to do due to the increased time underwater, but they are often easier to execute due to the longer time they allow. They are often a result of poor planning in the choreography and should not be rewarded with difficulty points.

5. DIFFICULTY in the element of risk

Athletes may choose a routine composed of entirely 'safe' movements or they may choose to use difficult actions in which an error of execution or synchronisation may produce an appearance of near disaster.

A 'risky' routine using extreme thrust height followed by multiple spins, synchronizing split rockets, boosts, lifts and coordinated platforms would increase the difficulty due to the added risk of major error. Failure in a risk action can also be sufficiently unnerving as to affect the balance of the routine. Successful risk movements in a routine can be rewarded with an added difficulty assessment. Failure to successfully execute the risk should not be rewarded with difficulty points for attempting it.

- **Actions requiring a high degree of skill or coordination**

Some actions are risky in themselves, eg thrusting spins, rocket splits. Difficulty in the risk movement is increased by adding swimmers. The risk level for the same element is higher in a Duet or Team than in a Solo. It is more risky to have all 8 team members perform a continuous spin than have 4 spin while the other 4 do something else.

- **Acrobatics: platforms, stacks, lifts, throws**

The risk is increased by:

- the number of swimmers or amount of weight lifted
- the length of time the position is held
- movements on top of the platform, such as leg lifts or splits, dance movements
- throws from the platform, stack or lift.
- maintaining the position while traveling.

- **Floats and joined actions**

The Risk in these movements is failure to connect, particularly if minimal time is given for the connection.

- **Blind pattern changes**

Movements where swimmers cannot see each other are more risky, particularly those requiring back to back movements, foot first travel, or performed in head down vertical position.

6. DIFFICULTY in synchronisation

Difficulty comes both from the movements chosen and how they are synchronised to the music.

- **Number of Swimmers**

The more swimmers there are, the more difficult it becomes to match the actions, particularly on:

- rates of rotation
- levels of descents of verticals and spins
- timing, height, width of opening and join of a rocket split.

- **Type of Music**

Varying tempos, rhythm and melodic changes make some music more difficult than the standard 4/4, 3/4, or familiar repetitive pop tunes. Certain music becomes more difficult for synchronisation because accents or highlights demand certain actions be made at very specific times.

7. PLACEMENT of the difficulty actions

Placement of the actions in the routine may affect the overall difficulty. Difficulty increases:

- for a difficult figure when it follows another difficult figure or long underwater sequence
- when it is spaced throughout the routine
- when it is placed at the end of the routine.

9. JUDGING ARTISTIC IMPRESSION

To understand the *Artistic Impression* component, a definition is useful. 'Artistic' is defined as showing skill or good taste while 'Impression' means an effect, an image or feeling retained as a consequence of experience. Because of the subjective nature of many elements in this component, widest latitudes must be allowed. What may be considered artistic to one may seem common to another. An appreciation of a variety of cultures, styles, music types and interpretations should be cultivated. Personal feelings, whether one likes the routine or doesn't, should not sway the judges perception. Evaluation and scores awarded should be based on how the routine fits the judging criteria.

10. JUDGING CHOREOGRAPHY

Choreography is defined as the art of assembling movements so they have meaning, style and form. Creative and technical elements are assembled to form a composition that has continuity, structure, purpose and meaning. The routine is not just a combination of unrelated actions. It should resemble a novel rather than a collection of short stories.

Choreography is the largest portion of the *Artistic Impression* score counting 50% for Solo, Duets and Teams. Judges must remember that half their score for AI comes from how they value the Choreography. The elements that are evaluated in the *Choreography* award include Variety, Creativity, Pool coverage, Patterns and Transitions.

1. VARIETY

Variety means the inclusion of many types of skills to show mastery of the different elements of the sport as well as to lend interest. The routine should show a balance of skills appropriate to the music and the level of the swimmers. It is not necessary to include every position or skill for good variety. Some repetition is proper if it fits the music. Too much repetition can raise a question as to which skills have been overlooked.

Judges Consider:

- **VARIETY in stroking:**

The possible variations in stroking are endless. Some examples are:

- arms may be bent, straight, angled, or curved
- single or double arms
- hand and finger positions may be spread, flat, angled, cupped, straight, closed or curved
- head and body angles may tilt, turn, lift, or stay erect
- actions may become complex with multiple changes of arm and hand positions
- height or body position changes can be made within a stroking sequence
- front to back to side
- horizontal to vertical and vice versa
- boosts and jump-ups.
- direction change can be from straight to side, to angle, to turning, etc
- speed and energy can vary from fast to slow, to moderate, and include ‘frozen’ moments

- **VARIETY in propulsion:**

There are only slightly fewer variations in kicking

- flutter, eggbeater, scissors, whip, dolphin.

Sculling variations are almost as endless as the stroking and can be made in speed and direction on all the following sculling actions:

-standard, reverse, torpedo [propellor], canoe, alligator, support, vertical support, etc.

- direction may be forward, backward, sideways, head first or foot first

Changes can be made in kicking speed and direction. Speed and energy may vary from fast to slow, to moderate to stationary.

- **VARIETY in Figures**

There are even more variations possible in figures

- body positions: layout, vertical, pike, tuck, split, bent knee, ballet leg, etc.

-standard and hybrid figures and transitions such as somersaults, walkouts, spins, rotations, thrusts.

- multi-dimensional movements such as Gaviata lift with rotation

- beginnings and ending can be varied with prone, supine, and underwater actions

- figure completions include vertical descents, or arch outs to prone or supine positions, tucks and rolls and the currently popular splash-down endings, etc.

- innumerable combinations and hybrid figures such as such as split rocket, walkover to spin, ibis to aurora can be made.

- ascending, descending, continuous open and closed spins, twirls and sustained rotations: in a multitude of body positions and combinations.

- **VARIETY in speed, direction and level**:

Speed of actions can change from fast to slow, accelerate or slow down, stop or become extremely rapid. Height and direction of movement can change during an action or upon completion

.

- **VARIETY in Difficulty:**

Includes a mixture of

- long and short figures

- complex and simple actions

- single and double arm strokes

- variations in speed from fast, to slower, to held moments.

- movements requiring strength, such as sustained twists, thrusts, boosts,

- actions requiring coordination and precise timing such as split rockets, spins, and rotations
- actions requiring extreme flexibility and agility.

- **VARIETY in transitions:**

A variety of transitional actions should be employed when moving into and out of strokes and figures. These actions could include moving into a figure in a different position than prone or supine such as

- moving into a front pike from the side
- beginning a vertical from
- an underwater start
- a Nova arch start.

Returning to the surface following a vertical descent can be varied by such things as

- tuck out, swim up, arch out, walkout, boost up.

Pattern change transitions can be made on the surface through stroking, kicking or eggbeater travel, or from underwater by swimming, kicking or sculling up.

- **VARIETY in patterns:**

Expect to see numerous patterns which include

- spread patterns and close formations
- curved lines and circles
- straight lines and diagonals
- moving or stationary patterns
- symmetric and asymmetric patterns.

2. CREATIVITY

Creativity should be considered in the broad sense of making something out of the ordinary, something unexpected or surprising. It may be combining or changing familiar material to offer something unique or it may be the way music is used to make something happen to cause an element of surprise; or whether the obvious stereotype is replaced with the unexpected. The meaning of creative should not be restricted to original, but instead, the making of a lasting impression, something truly unique, a ‘memorable moment.

Look for creativity in all actions - figures, strokes, propulsion techniques, transitions, patterns and pattern changes, paired and group actions. A superior routine will use a wide variety of creative movements and patterns.

Judges Consider:

- **Uniqueness**

Look for the unique, unusual, innovative, out of the ordinary, surprising, or unexpected actions.

- **Paired and team actions:**

These may include joined or intertwined movements in pairs or groups, floats and connected actions, lifts, throws (such as somersaults in air) and platforms with statues".

- **Highlights and memorable moments:**

In addition to the above, memorable moments may come from

- a combination of actions
- rapidly changing combinations of float sequences,
- combinations of figure and/or stroke sequentials
- peel-off or add-on cadence actions
- exciting figure actions such as split rockets, rocket thrusts, thrust spins, open and closed multiple spins of varying tempos..

Look for movements that are distinctive!

3. POOL COVERAGE

Pool coverage is described as the pathway the swimmer takes through the water. Constant travel throughout the routine is desired. How the swimmers move throughout the pool area and the pattern of movement they creat, is a major consideration. Solos and Duets can and should cover the pool area fairly completely. Many swimmers at Senior level will travel the equivalent of three to four lengths, including moving on angles.

The pathway or pattern the solo swimmer makes should be varied in use of pool space. Duets should also take varied pathways through space to make interesting movement patterns. Teams are more limited but should include some lateral or diagonal movement, in-and-out, and/or pass-through movements while covering approximately one pool length (or equivalent) per minute during the four minute routine.

Judges Consider:

- **Constant flowing action:**

Routines travel the length, on angles, to corners and sides of the pool while moving in and out of patterns. The flow should continue without abrupt stops or reverse actions or retracing paths unless it is for choreographic effect. Time spent in any one spot should be minimal.

- **Effective use of space**

While the space should be effectively used for movement to cover all areas of the pool, consideration should be given to the placement of highlights and special actions. These special actions should be placed where they can be effectively seen and appreciated..

4. PATTERNS (formations)

Team routines consist of a series of formations and the movements between those formations. Patterns will be constantly changing and should change so effectively that the changes are hardly apparent. Pattern changes can be made underwater and at the surface. Surface changes are especially effective though harder to plan and perform. The length of time a pattern should be held depends on the skill and experience of the swimmers, the type of action shown, and the music.. All patterns must be well defined and held long enough to be recognised.

Judges Consider:

- **Clarity**

The shape of the pattern should be immediately recognisable, such as

- square, rectangle, triangle, circle, diamond, railroad tracks
- straight, diagonal, or curved lines
- a letter of the alphabet such as ‘X’, ‘O’, ‘H’, ‘T’, ‘L’, ‘V’, ‘Y’, ‘I’, ‘Z’.
- symmetric or asymmetric
- spacing may be spread, close together, or joined.

- **Moving or static patterns**

Patterns may be stationary and held in one place or they may move or they may rotate

- **Frequency of change:**

Patterns are changed often, 3-7 times per length - with 20-30 in a team routine

5. TRANSITIONS

A transition is passage from one state or place to another. In Synchronised Swimming, these are the connecting movements the swimmers use to change position - from one position to another, in a pattern, from stroke to figure, figure to stroke, and within a figure or stroke. Properly designed transitions will maintain the flow of the routine and always enhance the quality. Poor transitions will be obvious by their interruption of the flow. Examples of different kinds of transitions follow.

- **Positions in a figure**

A hybrid figure may move from Front Layout to Front Pike, to Submerged double ballet legs, rise and unroll to Knight position, rotate to Fishtail, lower leg to Surface Arch, then surface in a Back Layout (six different figure transitions)

- **Stroke to figure**

  - from backstroke, leave hand out while arching down as in a Dolphin
  - from side, scissors kick-glide-arm swing forward into a Front Pike pull down
  - from side, flutter to arm stroke forward into a forward moving figure.

- **Figure to stroke**

  - vertical descent, tuck-out and return to eggbeater or flutter kicking
  - vertical descent to arch-over to a foot first return to surface, recovering by
  - torpedo-tub to stroking
  - torpedo-marlin to stroking
  - torpedo arch leg under and sit-up to eggbeater stroking

- **Horizontal to vertical position**

  - side flutter kick and stroke to arm up eggbeater
  - crawl stroke to porpoise lift
  - back stroke to layout to arch lift (Spiral)

- **Vertical to a horizontal position**

  - arm up eggbeater to side flutter
  - eggbeater to back or front stroke or layout
  - vertical rise to arch-out onto side or back

- **Pattern changing**:

Changing the positions of swimmers in the pattern

  - from 3-2-3 to diamond
  - 4-4 to 2-2-2-2
  - V to straight line; X to V; O to I; O to II, L to T, etc.

Judges Consider:

- **Effectiveness of transitions**

All transitions must be

- smooth and fluid
- show logical progression of movements
- demonstrate ease of motion with seemingly effortless changes.

- **Amount of time taken for actions:**

All transitions should be made efficiently with no excessive time to change or to set-up actions, or excessively lengthy or confusing underwater swimming or scramble.

11. JUDGING MUSIC INTERPRETATION AND USE OF MUSIC

Music Interpretation, Use of Music, counts for only 20% of the *Artistic Impression* score for a Solo, but rises to 30% for Duet and Team. Whatever the percentages, music actually has a far greater influence because the music is the basis for all of the other categories: *Choreography* is dependent upon it; *Manner of Presentation* relates to the feeling the swimmer has for it; and all the Technical categories, *Execution, Synchronisation* and *Difficulty* are affected by how the music is used. Using music effectively should be thought of as the blending of movements and music into an oneness of expression.

Synchronised Swimming is built on the element of music; the music is what gives life to the sport. This category calls primarily for subjective analysis, where personal experience and feeling can influence the judgement more than in any other area of judging. There is no authority to define what is good use or bad use. Although judgement is based on personal perceptions of what constitutes “good” or “bad” interpretation, judges cannot allow any personal dislike of the music to affect their score. Athletes need only bring out it's character, moods and feeling.

INTERPRETATION OF MUSIC

Interpretation of Music in Synchronised Swimming means the translation of sounds, rhythms, dynamics, melodies, moods, accents, and highlights in the music to suitable expression of movement in water. The quality of the music, from full symphonic orchestration to a single violin concerto, from symphonic choral works to pop ballads, determines the type of action that can be used to express its mood and the emotional responses needed for its portrayal.

Music may range from strong, forceful, staccato and loud to soft, subdued, delicate and flowing. Strong, dynamic music calls for powerful, grandiose actions and movements. Soft, flowing music calls for a more lyrical interpretation with rounder, more fluid and delicate actions. Fast, quick, complex movements fit music with a fast tempo while slow graceful movements need to be created for slower passages. The mood of the music may induce tenseness or excitement, joy or tranquility to the listener. Some music calls for continuous flowing action, other music has stops and starts demanding intermittent or staccato action. The nature and demands of the music should be all found in the competitor's portrayal of it.

A common problem in mid-to-lower level routines is the apparent lack of relationship of the choreography to the music, with generic movements performed to what could be termed “background” music. These routines give the impressed that they were choreography and then the music was selected. Or, to a lesser degree, particular elements were included because the athlete thought they were “neat” and/or could do them well, whether they “fit” the music or not.

USE OF MUSIC

The term ‘use’ means ‘availing oneself of something as a means to an end.’ The music's rhythms, dynamics and accent points set the tempo and power for the actions. Literally, it is how the swimmers use the beats and measures, the ‘highs and lows’, varying melodic themes, different instrumental sounds, and the dynamic changes [highlights and accent points].

Musically, tempo may be labeled ‘presto’, ‘moderato’, ‘lento’, or fast, moderate, slow. These tempos should be observed in fast, quick, complex movements for the ‘presto’; and slow, graceful movements to accompany the ‘lento passages’. If strokes and figures remain at the same pace and in the same style while the music changes from one tempo to another, an uncomfortable feeling of mismatch of action to music will develop.

Highlights, or accent points in the music, call for something special such as boosts, platforms, lifts, throws, split rockets, multiple spins, etc. A superior routine will always match the highlights to the special accents in the music. These are the ‘Memorable Moments’ that remain with the viewers.

Judges Consider:

1. INTERPRETATION of character, mood, feeling

- **Character, quality:**

  Consider the sound, full symphonic orchestration or single instrument, pop vocal or military band, chamber quartet to rock band; strident, overriding beats or soft, flowing melody. Then consider whether the character of the music has been portrayed by the movements in the water.

- **Mood, meaning:**

  Consider the mood or meaning of the music, strong, romantic, joyous, sorrowful, patriotic, etc. Perhaps you know what the composer had in mind? If not, what does ‘it’ say to you? Consider both the obvious and subtle qualities of the music and whether they have been interpreted.

- **Feeling, fervor and passion**

  Consider the emotional impact of the music and how it has been interpreted. The athlete must be able to bring out the emotion heard by the viewers through the interpretation given.

2. USE of the music's dynamics

- **Tempo changes**:

Actions must match the tempo - fast, moderate, slow, or stopped - and change when the music does.

- **Power and delicacy**:

Movements match the strength and delicacy heard. Strong, angular, and forceful actions are used for dynamic music. Flowing, curving, soft actions are best for lyrical, melodious parts. The highs and lows in the music are matched by actions, up high or low in the water.

- **Accents and highlights**

'Memorable moments' are matched to the accents and highlights in the music - the crescendos and descendos, the big symbol clangs, the drum rolls, etc.

3. COMPATIBILITY of the music

- **Suitability to athlete**:

The music should be in harmony with athlete's 'style' of swimming, appropriate to the ability and compatible with the age and maturity level.

- **To the total composition**

There should be justification for the varying sections and appropriate blending of the sections to express the musical concept. Care should be taken in choosing the music parts and in the editing so there are no pops, hisses or extraneous notes. While the choice of music is not judged, good music will always enhance the performance. Poor music, in choice, quality, or with poor editing and recording, will detract from the performance.

12. JUDGING MANNER OF PRESENTATION

Manner of Presentation is 'the way in which the swimmer presents the routine for the inspection or consideration of the viewers'. It is a very important part of the score. In Solo it counts for 30% but drops to 20% for Duet and Teams. Manner of Presentation has both objective and subjective components.

Manner of presentation is more than a smile. It involves the face and use of the whole body. The swimmers must demonstrate they that they are in total command throughout. Total command requires a completeness of performance that demonstrates confidence, poise and effortlessness; a high energy level, both physical and emotional; a consistency of performance with the maintenance of an illusion of ease throughout. There must be responsiveness to the emotions expressed by the music and appropriate to the choreography along with the ability to communicate with sincerity and enjoyment to viewers so they are drawn into and feel a part of the performance. Routines that receive top scores in this category show dynamism and strength yet are also fluid, graceful and captivating. They have an allure, an appeal to the senses, a magnetism; in short, they have charisma.

Judges consider:

1. COMPLETENESS of performance

- **Use of whole body, body language**:

  Superior athletes will demonstrate excellent carriage and posture and be able to display and make use of body language in head and torso positions, leg, arm and hand movements; and facial expressions, to carry a message to the viewers.

- **Focus of body and face**:

  Look for eye contact and use of the head. The focus can be erect and upright, with straight or squared shoulders or it may be soft, curving, turning with tilting shoulders; and appropriate facial expressions to carry a message to the viewers.

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- **Use of varied moods**:

  The athlete is able to demonstrate a desired mood: love, power, joy, sorrow, anger, pain, etc. which allow the audience to also feel the emotions heard in the music.

2. AURA OF TOTAL COMMAND, confidence

- **Convincing presentation**

The entire performance is purposeful, riveting, and demanding of attention with an air of confidence and command maintained throughout.

Although not considered in the scoring, the initial appearance - walk-on and deck positions - should be assured, position is sharp, clear, and commanding. The ending position is also sharp, clear and commanding.

- **The performance is seemingly fresh and spontaneous throughout!**

3. RESPONSIVENESS to music

- **Portrayal of the feeling of the music**

The athlete should portray the emotions felt in the music; happy, sad, powerful, etc. The feelings and emotion must appear to come from within and reflect those being expressed by the music.

- **Routine a harmonious whole:**

A routine should give a feeling of being a harmonious whole; a novel rather than a collection of short stories. To accomplish this, careful thought must have been given to the music selections chosen so they too give a feeling of being part of the harmonious whole. The editing must be unobtrusive and suitable to the selections chosen. To accomplish this, the music must be of superior quality without distracting hisses, pops, scratches.

- ***The routine seems uniquely the competitors'***

4. EFFORTLESSNESS throughout

An illusion of ease is maintained throughout the performance. The breathing is quiet and not explosive or wheezing. The kicking and sculling appear effortless and powerful without splash or struggle. Figures remain high, stable and executed cleanly to completion. The return to the surface and 'break-through' is smooth and easy, without sputtering, blowing bubbles or fountains of water. The athlete doesn't look frantic or panicky and remains poised and confident throughout.

- **Consistency of performance with continual movement**

Top swimmers will not look rushed or exhausted, but will demonstrate a consistency in their level of performance from start to finish. The routine will flow seamlessly, with continual movement throughout, so the viewer is lead from one action to the next, never able to look away even momentarily because there are no stops or resting points where movement lags.

5. CHARISMA and COMMUNICATION

- **Ability to communicate with viewers**

The personal presence of the swimmer can be captivating, enchanting, intriguing, fascinating, etc. The routine seems too short when it is done so well.

- **Facial expressions**

If the mood of the music changes, so may the facial expression. A 'pasted-on' smile is seldom appropriate, especially if the feeling of the music is serious, strong, angry, or sad and sorrowful. Throughout the routine, the swimmer needs to portray confidence and at ease in all her movements.

- **Sincerity**

To be convincing, athletes should be able to establish eye contact with the judges and audience.

- **Showmanship**:

The terms magnetism, charm, appeal and charisma are terms which signify how the athlete projects to the audience. Swimmers must 'sell' their performance every time it is executed, and still always, appear 'new and fresh.' Each performance should bring obvious enjoyment eliciting spontaneous applause from the viewers. You could watch it again and again.

13. QUALITY OF PERFORMANCE SCALES

FINA provides a Quality of Performance Scale with ten descriptive divisions:

9.5 – 9.9	Near Perfect
9.0 – 9.4	Excellent
8.0 – 8.9	Very Good
7.0 – 7.9	Good
6.0 – 6.9	Competent
5.0 – 5.9	Satisfactory
4.0 – 4.9	Deficient
3.0 – 3.9	Weak
2.0 – 2.9	Very Weak
0.1 – 1.9	Hardly Recognisable

Additional Suggested Synonyms for Quality of Performance, at each division center score:

9.7	Near Perfect, Superlative, Exceptional
9.3	Excellent, Superior, Impressive, Striking
8.5	Very Good, Accomplished, Skilled
7.5	Good, Effective, Some deviation from Standards
6.5	Competent, Capable, Some minor problems
5.5	Satisfactory, Adequate, Ordinary, Average, Some moderate problems
4.5	Deficient, Careless, Sloppy, Less than Satisfactory, Scattered major problems
3.5	Weak, Poor, Unsatisfactory, Inadequate, Frequent and major errors
2.5	Very weak, Struggling, Awkward, Ineffectual, Continual errors
1.5	Hardly Recognisable, Incompetent, Inept, Incapable
0.5	Essentially Unrecognisable, Near Failure.

GUIDING SCALE FOR HEIGHT QUALITY OF PERFORMANCE TERMINOLOGY

Water Levels For:		**Excellent/ Near Perfect**	**Very Good**	**Good**	**Competent**	**Satisfactory**	**Deficient**	**Weak**
		9.5	**8.5**	**7.5**	**6.5**	**5.5**	**4.5**	**3.5**
Stable Height	**Double Vertical**	Upper mid thigh	Mid thigh	Well above knee cap	Above knee cap	Knee cap	Below knee cap	Well below knee cap (mid shin)
	Bent Knee Vertical	Crotch level	Upper thigh	Mid thigh	Low thigh	Above knee cap	Knee cap	Below knee cap
	Crane Position	Back of horizontal leg dry	Upper thigh	Mid thigh	Low thigh	Above knee cap	Knee cap	Below knee cap
	Ballet Leg	At top of thigh	Upper thigh	Mid thigh	Low thigh	Above knee cap	Knee cap	Below knee cap
	Eggbeater Double Arms	Bust above surface	Mid bust	Arm pit dry	Collar bone	Showing shoulder	Mid neck	Chin dragging
Dynamic Height	**Thrust, double leg**	Lower ribs or higher	Waist	Pelvis points	Crotch level	Upper thigh	Mid thigh	Knee cap
	Thrust, single leg	Mid ribs	Lower ribs	Waist	Pelvis points	Crotch level	Upper thigh	Mid thigh
	Rocket Split	Lower ribs or higher	Waist	Pelvis points	Crotch level	Upper thigh	Mid thigh	Knee cap
	Boost(head up)	Crotch level or higher	Mid pelvis	Top of pelvis	Waist	Lower ribs	Arm pit	Showing shoulders
Assisted Height	**Foot First lift**	To chin	Shoulder line	Mid chest	Lower ribs	Waist	Top of pelvis	Crotch level
	Head Up lift	Full body (feet above the surface)	Ankles	Mid calf	Below knee cap	Knee cap	Above knee cap	Mid thigh
	Platform lift-height	Platform above surface		At surface		Below surface		

EVALUATING EXECUTION

"The level of excellence in highly specialised skills"

JUDGING FACTORS		Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
Strokes	Efficiency	Very Effective	Good	Average	Inadequate, ineffective
	Power, motion	Strong, rapid travel	Strong, good travel	Ordinary, fair travel	Very weak, little travel
	Water Level	Very high	High	Low, inconsistent	Deep, bouncing
	Fluidity	Smooth, clean, uniform	Mostly smooth, even	Interrupted, not uniform	Jerky, uneven
	Effort	Not apparent	Hardly noticeable	Obvious	Struggling
Kicks	Efficiency	Very effective	Good	Fair	Inadequate, weak
	Power, motion	Strong, rapid travel	Fairly strong, good motion	Weaker motion	Weak, doesn't travel much
	Splash, turbulence	Non existent	Minimal	Evident	Splashy, uncontrolled
	Fluidity	Smooth, uniform motion	Mostly smooth	Jerky	Irregular, jerky
	Effort	Not apparent	Little apparent	Obvious	Struggling, laborious
Propulsion	Efficiency	Very effective	Good	Fair	Inadequate, lacking
	Power	Strong travel & lifting	Good lift & travel	Little lift, weaker travel	No lift, feeble travel
	Splash, Turbulence	Non existent	Minimal	Evident	Obvious
	Height & stability*	High, solid, superior*	High, steady, good*	Low, unsteady, adequate*	Deep, wobbly, poor*
	Fluidity	Very smooth & uniform	Mostly smooth	Bouncy	Uncontrolled
	Effort	Confident	Little apparent	Obvious	Frantic
Figures/ Hybrids	Position accuracy	Clear, precise	Usually accurate	Inaccurate or undefined	Accuracy/definition lacking
	Motion accuracy	Solid, neat, clean	Clear	Sometimes blurred, fuzzy	Wild, uncertain
	Height, stable*	Always high, superior*	Usually high, good*	Adequate*, wavering	Poor*, variable
	Height, dynamic*	Always high, superior*	Usually high, good*	Adequate*, variable	Poor*, uncertain
	Stability	Solid, unwavering	Controlled	Uncertain, wavering	Uncontrolled
	Fluidity	Always smooth	Mostly smooth	Varying, jerky	Discontinuous
	Effort	Confident	Little apparent	Sometimes obvious	Struggling
Transitions	Efficiency	Effective, logical	Some extra motion	Rushed, lacks directness, Inconsistent	Ineffective
	Control	Precise, natural	Fairly strong, even	Rough, erratic	Lacking control
	Fluidity	Smooth, uniform	Slight roughness	Obvious	Poor continuity
	Effort	None apparent	Little apparent		Struggling
Patterns	Definition	Clear, sharp	Most are clear	Irregular, fuzzy	Hard to identify
	Stability	Strong, solid	Most strong & steady	Loose, wavering	Unstable, not maintained
	Set up efficiency	Quick, clear, logical	Fairly fast, most logical	Messy, confused	Poor, disorganized
	Fluidity, effort	Natural, confident	Sometimes lacking	Often laboring	Sloppy, struggling
Risk Moves: Stacks/lifts, Throws, Platforms, Floats	Definition	Clear, sharp	Distinct	Fuzzy, not clear	Not demonstrated, sloppy
	Stability, holding	Strong, solid	Minor instabilities	Chancy, may fail	Uncertain, falling
	Height	Superior*, very high	Good*, high	Adequate*, minimal	Poor*, deep
	Efficiency	Quick logical set up	Fairly clean set-up	Confusing	Much confusion
	Effort	Non apparent	Little apparent	Obvious	Distracting, frantic
OVERALL	Consistency	Superior throughout	Slight variations in quality	Irregular	Poor & deteriorating
	General impression	Near perfection	Very few problems	Adequate	Struggling throughout

* Refer to the **Guiding Scales for Height Quality of Performance** table for the relation of height to each quality item.

EVALUATING SYNCHRONISATION

"Motion in unison with each other and with the music"

JUDGING FACTORS	Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
A. In Unison				
Strokes/Propulsion All in unison	strokes, propulsion kicks, sculls, all totally matching, precise	Minor deviations, some variations in technique and speed of motion	Occasional significant errors, techniques vary significantly, lacking in clarity	Seldom together, no apparent effort to match techniques, disorganized
Figures	Always precisely matched, all actions choreographed synchronisation	Some minor errors, not always sharp. Actions vary slightly causing fuzzy timing	Timing often blurred. Some errors. Minimal effort to match motion/support actions.	Error major and ongoing, Motion/support actions differ throughout.
Transitions	Nearly identical, speeds matched precisely	Some minor errors, speed variations & deviations in underwater action	Many differences in speed and technique, some major errors	Much confusion, many major & minor errors in timing
Risk Movements: Stacks, Lifts, Platforms, Throws, Floats	Coordinated, sharp & precise,	Minor problems, fuzzy on fast action (thrusts, rockets, throws) initiation	Moderate to major timing errors May fail to achieve positions	No attention to matching due to struggle simply to do skills
Underwater	Purposeful, choreographed to match precisely and performed that way	Some lack of clarity with varied techniques or paths. Surface breaks fuzzy.	Little effort to match, Individual surface breaks.	No effort to synchronize underwater techniques or surface breaks.
B. With the Music				
Rhythm	Sharp and precisely on musical counts.	Generally uses counts well, may slur to fuzzy timing with late responses.	Often shows lack of feeling for rhythm but still shows some fuzzy relation to it.	May seem that routine was choreographed to other music.
Tempo Variations	Sharp & precise timing changes.	Occasional lapses, but adapts well to changed tempos and rhythms.	Tends to maintain favored tempo regardless of music change.	No evidence of recognition of any tempo variations.
Match to Music: Accents, descents, risk actions, highlights	Varied actions well timed with supporting music.	Major actions usually timed to music.	Generic, unsuitable actions & timing, only small part of special sounds utilized.	Lack of skill prevents real connection with music.
OVERALL Seeming one with the music.	Spectacular! Awesome!	Very pleasing synchronization.	Still looks nice, (especially to parents).	Will try to synchronise after they learn the skills.

EVALUATING DIFFICULTY

"The quality of being hard to achieve"

JUDGING FACTORS		Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
Strokes & Propulsion	Energy Power, Strength Height Complexity Close spacing	Constant, energetic motion. Long, rapid travel. Complex stroke combinations. Close spacing often. Much action needing strong or explosive force, coordinated support.	Much energetic motion. Less travel. Few rest spots. Less complexity. Some actions requiring strong or explosive force and/or sustained support.	Simple strokes sequences with less support. Rest stops. Minimal support skills needed or demonstrated. Action weak.	Standard strokes. Little travel attempted, long periods in one spot. No power, speed or energy.
Figures & Hybrids	Power & Strength Height Kinesthetic awareness Flexibility Complexity Underwater time Close spacing	Many sequences requiring stamina & strong support for great height. Many complex combinations with off-angles, level changes & travel. Complex actions, closely spaced.	Some sequences demanding strength & stamina. Some complex combinations but less underwater time demand. Little designed travel in figures. Spacing at more comfortable distances.	Few actions requiring any strength or stamina. Shorter, simpler figures, few complex sequences. No use of actions requiring good coordination.	Only short basic figure actions used. No effort at height. Nothing complex. Poor execution devalues difficulty of actions used.
Transitions	Individual action Group action	Foot first, blind lines, multi-cross overs; interacting, cooperative swimmer actions used. More surface than underwater changes. Minimal set up time utilized.	Less use of blind, foot first, cross over or cooperative swimmer actions. More underwater changes. More time allowed for transitions	Generally simple, direct, uncomplicated transitions, both individual and group. Simple surface transitions, most underwater. No time pressures.	Little transition attention at all. Simply get there any way possible.
Patterns	Type Number Risk	Many difficult, intricate patterns maintained during complex action or rotating travel.	Fewer patterns which are difficult to align and maintain. Less action within any difficult patterns. More simple travel maneuvers.	Simple with no complex or difficult action. Little travel within. Fewer pattern changes.	Basic patterns changed infrequently.
Risk Moves	Skill & Coordination required for action. Memorable moments Platforms & Throws Stacks & Lifts Floats	Many single & group high risk moves. Great height and coordination; difficult to match; blind interactions. Stacks, lifts & throws which require great height for successful completion.	Fewer actions requiring great height & coordination. Simpler lift and throw actions. Simpler lift and throw actions.	Fairly simple, common risk elements where execution such as poor height or wavering stability may devalue the difficulty of the action.	Little or no risk, except that of the challenge of some basic actions for the swimmer skill levels. High probability of failure on any complex action attempted.
Synchronization Risk	Actions in unison Actions to music	Rapid, complex actions used often. Complex sequences, peel-offs, etc. Complex rhythm use.	Less complexity to simpler rhythms. Simpler actions in Peel-offs and cadence sequences.	Simple music rhythms and tempos for easy synchronization of more basic skills.	Not keeping up with the most simple tempos used for basic actions.
Placement of Difficulty		Frequent throughout.	More in early part of routine than late	Occasional only.	Non-existent.
OVERALL		Incredible!	Very pleasing.	Nice with some promise.	May be painful to watch.

EVALUATING CHOREOGRAPHY

"The art of creating and arranging routines"

JUDGING FACTORS		Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
Variety	Strokes & Propulsion Figures Speed & levels Difficulty Transitions Patterns	Balance in all types of figures, strokes, sculling & kicking skills; long-short, fast-slow, hard-simple; high twists, open & closed spins, rockets, thrusts, walk outs, splits; single & double arms; varied levels & directions; some unusual positions & actions; many patterns; well integrated.	Somewhat more limited diversity in some of the categories in previous column. Still well balanced but not as many such actions shown. Some move toward less complex and less demanding skills.	Some attempt to balance skills used but may be repetitive. More use of common basic actions. Fewer patterns. Little or no variation from basic positions in actions. May not be well integrated.	Essentially limited to basics; simple patterns, basic figures, simple strokes, sculls & kicks. Very simple transitions. May not seem organized.
Creativity	Unique strokes Unique figures Imaginative sequences Novel formations, Memorable moments using risk actions.	Engaging beauty of design. Unique, unpredictable strokes, figures, transitions formations. Inventive risks; surprising sequences, memorable moments. Spectacular!	Includes some notable & intriguing elements but relies more on rather standard actions. Risks may be well-tested stand-by actions. Mostly predictable.	Almost entirely ordinary action with little or no novelty in combinations or manner of use. Generally predictable, mechanical, trite.	Nothing inventive or unusual. Standard actions in generic flow. Nothing risky except in the attempting of simple actions that are still above the skill level evident.
Pool Coverage	Use of space Flowing action	Continuous flow, sweeping all areas. Staged for maximum effect with key actions well placed.	Good coverage but may be unbalanced or miss some areas. Some key actions may be poorly placed.	Unbalanced, little variability in directions; flow often interrupted. Highlights often stuck in corner.	Most basic travel patterns; back tracks & gets stuck in stops & rests.
Patterns	Shapes Moving/Static Changes	Unusual & intricate shapes. Moving, rotating patterns including complex actions; innovative flow from one to another.	Less novel & intricate shapes; less cleverness & complexity in moving & changing patterns. Fewer patterns attempted.	Standard & fewer patterns; usually simple with no complex movement. Little imagination in changing.	Few patterns, all standard with no unusual action in or between. May be difficult to identify patterns attempted.
Transitions	Effectiveness Time efficiency	Effective, efficient, purposeful, logical. Hardly noticed except for unusual approaches.	May not show same efficiency and logic. Little ingenuity demonstrated.	Standard, with little planning for effectiveness or efficiency. Poor flow.	Awkward. Unplanned. Overlong. Confused.
OVERALL		Cohesive, delightful masterpiece!	Pleasing, attractive with apparent potential.	Trite & ordinary.	Needs a lot of work. Little pleasure in watching.

EVALUATING MUSIC INTERPRETATION

"A blending of movements and music into a oneness of expression"

JUDGING FACTORS		Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
Music Interpretation	Character, Quality	Action convincingly suited to music, music which offers a wide range of opportunity for expressive interpretation.	Action fits well to the music's qualities but may occasionally seem to 'miss the point' with uninspired action.	Interpretation of the music's character appears largely mechanical or is a cliche adaptation.	No apparent relation to the character of the music. Actions might fit to any other music with the same measure structure.
	Mood, Temperament	Mood is well expressed by body & interpretive character of the actions.	Attention given to moods but may not seem to fit some of the obvious ones.	Hardly able to express mood; may even show an inverted interpretation.	Ignores mood.
	Emotion, Feeling	Optimal use of subtle & obvious music qualities for maximum emotional impact.	Not quite up to fully developing an emotional impact related to the music.	Trite and mechanical interpretations. Pantomime used, if anything.	Mechanical, wooden, trite. No attempt to portray emotion of the music.
Use of Dynamics	Power, Grace	Well defined strong action to accompany music's power; Gentle action where appropriate.	Well interpreted but may have some awkwardness sections to music which has good range.	Music may have good contrasts but they are not used well.	No apparent attention to dynamics, except for possible cliches.
	Accents, Highlights, Special Effects	Memorable moments synthesized from superior interpretation of the special parts heard in the music.	Good use of accents and special effects. Portrayal may be a translation of associated lyrics or story instead of of the music's sounds.	Predictable actions for obvious, simple-to-use accents. Other special effects are neglected.	Attempts made to use major & obvious highlights, but skills fail to meet the challenge.
Compatibility	With competitor	Harmonious maturity & style of swimming. Music supports motivation & choice.	Music may not be totally compatible with athlete's personality. Coach's choice?	Safe functional background. Swimmer not challenged with tempo & musical sounds.	Lack of skills make it difficult to find compatible music.
	With choreography, composition	Music displayed like a work of art. Shares its feeling with the viewers.	Somewhat incomplete communication of the meaning of the music.	Little attempt to portray the music, except as associated with the story or lyrics.	Could be swimming to spoons banging on the deck.
OVERALL		Memorable 'oneness' with the music!	Good effort but needs a little more emotional appeal.	Generic. Variety without unity of music & action.	Irrelevant performance.

EVALUATING MANNER OF PRESENTATION

"The way in which the swimmer presents the routine for the inspection of the public"

JUDGING FACTORS		Excellent/Near Perfect 9.5	Good 7.5	Satisfactory 5.5	Weak 3.5
Completeness	Body Language	Whole body used for expression.	Action doesn't always seem to. fit the swimmer	Nervous, hesitant, wooden, self conscious.	Little body language possible with wooden body.
	Focus	Centered completely on selling herself l& the routine to you!	Doesn't always maintain focus, loses contact, an 'on' & 'off' performance.	Most of focus is inward, concentrating on skills.	Total inward focus. Just trying to get through it.
	Varied Moods	Projects the personality of each varying mood.	Does better projecting some moods than others.	May portray happy & sad but little else.	No time for thinking of moods. Perpetual worry.
Total Command	Confidence	Commands attention. Poised. Confident.	Normally confident but not throughout.	Tentative, unsure, attention to skills may distract.	Worried, hesitant.
	Spontaneity	Fresh & obviously enjoying entire performance.	Some perception of feelings being choreographed.	Little spontaneity. Mechanical presentation.	No freshness. Possibly a recycled routine.
	Effort	Appears effortless. Complete ease of performance.	Effort may show through in places.	Effort distracts regularly from performance.	Struggling continuously.
	Responsiveness, Emotion	Captures flavor and nuances in performance.	May miss the musical emotion occasionally.	Action doesn't relate to the dynamics or feeling.	Hard keeping up with music, let alone 'feel it.'
Charisma	Communication	Involves viewers so that they respond.	Usually making good contact.	Rarely thinks of audience. May keep a fixed smile.	No attempts to communicate.
	Expressions	Full range of natural expressions.	Varied expressions with occasional lapses	Range of three: fixed smile, sad & oops!	Occasional smile; much concern & strain.
	Showmanship	Charismatic, spirited, secure, convincing, effectively 'selling it.'	Commanding & secure but not always convincing.	Little effort toward showmanship. Rote effort.	Costume may be all there is to showmanship at this level.
Other	Appearance	Captivating; athlete, swimwear, music & routine are unified.	Not as commanding or unified 'package.'	More attention to costume design than the wearing of it.	No costume can hide the awkwardness.
	Music distractions	None. Superb blend of quality music & action.	Music may have some editing problems.	May have too many selections, poorly blended.	Music selections may not fit together, poor editing.
OVERALL		Wow! Enthralling!	Liked it, except lapses.	Presentation a little scarce.	Look to the future.

16. JUDGING THE COMBINATION ROUTINE

The intent of the Combination Routine is to be *free* with limited rules and regulations.

The term **"Parts"** refers to the various sections with different numbers of competitors that make up the combination routine.

The term **"Exchanges"** refers to the switching from one part to the next part.

Technical Merit:		**Artistic Impression:**	
Execution:	40%	Choreography:	60%
Synchronisation:	30%	Music Interpretation:	30%
Difficulty:	30%	Manner of Presentation:	10%

Refer to the individual components on judging free routines for a thorough analysis of what is considered within the Technical Merit and Artistic Impression scores.

ADDITIONAL FACTORS SPECIFIC TO THE COMBINATION ROUTINE

EXECUTION: Consider how well each part and exchange of the routine is performed

- Does the level of execution change within parts or vary as the routine goes on?
- Are the parts with less than 3 competitors performed better than the parts with 4 or more competitors or vice versa?
- How is the execution performance ending one part and starting into the next part?

  Does it flow smoothly and start where the last part finished?
- How clear are the pattern formations between exchanges?

SYNCHRONISATION: One with the other and with music in parts and exchanges

- Are the exchanges between parts clearly synchronised?
- Consider the synchronisation of the exchange movements surfacing, descending, above and below the water.

DIFFICULTY: Consider the difficulty of each part and exchange

- Consider the difficulty of each part of the routine. Are there simpler parts?
- Are there resting spots with breaks in energy?
- Consider the number of competitors in the parts. It is more difficult to swim team parts with 10 competitors than with 4. It is more difficult to swim team parts than solo parts.
- Are there a variety of competitors used for highlights? Solo parts? Duet parts? The more competitors involved, the more difficult.
- Consider the length of time of each part. Is it long enough to judge true skill level?

- Consider the order of parts. Routines having all the team parts at the beginning with solo and duet performances at the end is less difficult than having team parts spread out and at the end of the routine when competitors are tired.
- Consider the difficulty between exchanges of entering and exiting parts
- Does the new part have little setup time and is it risky?
- Are any of the exchanges blind where the competitors finishing one part can't see the next competitors starting or vice versa? Blind exchanges are more difficult.
- How close are the competitors finishing one part to those starting another part?

  The closer together the more difficult.
- How are the competitors entering and exiting the parts?
- Are exchanges underwater or at the surface?
- Is there a variety in the type of exchange used?

ADDITIONAL FACTORS SPECIFIC TO THE COMBINATION ROUTINE

CHOREOGRAPHY: Variety, creativity, pool coverage, patterns & transitions

- Consider the choreography around the exchanges as a key factor in judging the combination routines.
- Consider the variety of moves. Is there a variety in the exchanges? Are team exchanges always done with the same number of competitors or is there a variety from 5 or 6 competitors to 8? Is there variety in the moves used within the exchanges? (i.e. body boost, spin down, spin up, stack- lift or dive off) Are the exchanges between parts *creative* and *unique* or predictable? Is there an element of surprise?
- Consider the creativity of moves. The stronger athletic performances will show energetic, original, imaginative moves in the parts and exchanges.
- Are the same competitors always used for solo/duet/trio and highlight parts or is there a variety of competitors in all parts?
- Consider the number and order of parts. Are there too many parts so that the judge does not have time to appreciate what is being done before the next part starts? Are the parts with less that 3 competitors interspersed between groups of 4 or more competitors OR are there several duets in a row followed by solo etc?
- Consider the overall flow of the routine. Does the routine flow logically and cover the pool or is it fragmented by the parts with a lack of logical movement? How well are the parts woven together? There should be a harmonious blend of all parts. Each part should seem needed in order to make the routine seem whole. Is the performance seamless with each part and exchange flowing and adding to the overall impression of the routine? Does each part work well together?

MUSIC INTERPRETATION: use of music

- How well do the competitors in each part interpret the music?
- Consider the musical interpretation throughout the exchange between parts.
- Although the combo routine is not required to have a theme, those routines which clearly convey a theme or story will contribute positively to the overall package and will be rewarded by the judges accordingly.
- If there is a theme, do all parts of the routine portray the theme?

MANNER OF PRESENTATION: total command

- Throughout each part of the music, competitors ideally should be showing TOTAL COMMAND, compelling the judge to watch.
- In addition to those swimming, the competitors waiting should also give you the feeling that they are involved and part of the routine.

The exchanges can be viewed as the glue to fitting the parts of the puzzle together seamlessly to make a whole cohesive routine.

The rule states a new part begins where the previous part ends. How far is acceptable?

- The intention is that the routine should flow and be logical not requiring the judges or T.V. cameras to search for the next competitor.
- The distance must be safe for the competitors. (especially for team exchanges)
- Obvious distance between exchanges will affect the fluidity of the routine and therefore the judges score and will be subject to a penalty based on the referee's decision.

TECHNICAL MERIT: Marking Scale for Combination Routine PARTS

Score Range	Execution (40%)	Synchronisation (30%)	Difficulty (30%)
10 **Perfect**	Flawless	Flawless	Covers **ALL** difficult elements, max difficulty
9.9-9.5 **Near Perfect**	Almost flawless, **minute** deviations	Almost flawless, **minute** deviations	Almost flawless, **minute** deviations
"Minute" errors or deviations only seen by trained eye and not uninformed observer			
9.4-9.0 **Excellent**	Strong, solid	Sharp & precise	Most difficult components present
8.9-8.0 **Very Good**	Shows ability, **minor** errors	Mostly together, slightly off	Difficult, but may be limited by ability
7.9-7.0 **Good**	Usually clear, fairly high in easier parts	Needs to be crisper & more precise, Synchro OK	Some medium difficulty scattered
6.9-6.0 **Competent**	Variable performance, significant errors	Significant errors & differences	Short, simple hybrids, 1 arm egg & vertical
5.9-5.0 **Satisfactory**	Recognisable, often inaccurate	Often blurred	Short easy figures, basic
4.9-4.0 **Deficient**	Struggling	More "off" than "on"	Shows propulsion, figures, no verticals
3.9-3.0 **Weak**	Lacking definition and uncertain	Seldom "on"	Basic strokes, ballet legs, somersaults
2.9-2.0 **Very Weak**	Unrecognisable	Little attempt	Basic skills, floating
1.9-0.1 **Hardly Recognisable**	Completely lacking, no skills evident	Not evident	Not evident
0 **Completely Failed**			

TECHNICAL MERIT: Marking Scale for Combination Routine EXCHANGES

9's **Excellent – Near Perfect**	**Risk** and **difficulty** in execution, timing and placement
8's **Very Good**	**Some** risk and difficulty in execution, timing and placement
7's **Good**	**Some** risk and some difficulty in **either** execution, timing or placement
6's **Competent**	**Little** risk or difficulty in execution, timing and placement
5's **Satisfactory**	**No** risk and **little** difficulty in **either** execution, timing or placement
4's **Deficient**	No risk and no difficulty in execution, timing and placement

ARTISTIC IMPRESSION: Marking Scale for Combination Routine PARTS

Score Range	Choreography (60%)	Music Use & Interpretation (30%)	Manner of Presentation (10%)
10 **Perfect**	Captivating	THIS music is required	TOTAL COMMAND
9.9-9.5 **Near Perfect**	Memorable, **minute** deviations	Exceptional, strong emotional impact	Uniquely captivating
9.4-9.0 **Excellent**	Impressive, **minor** lapses, may lack uniqueness	Strong impact in most parts	Confident, appealing, occasional minor lapses in projection and focus
8.9-8.0 **Very Good**	Pleasing & **strong**, gaps in creativity, predictable & lacking in variety, may lack flow	Expresses mood and pace, good use of obvious accents	Confident, but careful, body language limited to face
7.9-7.0 **Good**	Few creative moments, mainly standard actions, little complexity, may miss pool areas	Actions fit music, needs emotional appeal	Some command, but lacks conviction
6.9-6.0 **Competent**	Predictable & ordinary, content limited by a ability, minor highlights	Generic interpretation, attempts to explore contrasts/changes	Tentative, avoids eye contact
5.9-5.0 **Satisfactory**	Mostly common basic actions & patterns, awkward transitions, little flow, limited content & repetitive	Mechanical, predictable, safe use of obvious beat	Visibly self-conscious & nervous
4.9-4.0 **Deficient**	No variety or creativity, simple basics, basic patterns, poor pool coverage	Attempts to perform to beat, no mood or character	Looks scared
3.9-3.0 **Weak**	Sparse series of simple basic skills	Mostly background music	Wooden & nervous
2.9-2.0 **Very Weak**	Simple action performance	No interpretation attempted	Awkward, no presentation evident
1.9-0.1 **Hardly Recognisable**	Shapeless, senseless & totally disorganised	Oblivious to music	Unaware
0 **Completely Failed**			

ARTISTIC IMPRESSION: Marking Scale for Combination Routine EXCHANGES

9's **Excellent - Near Perfect**	**Exchanges surprising, unexpected, "WOW" factor:** no distraction during exchange, competitors just 'disappear' when finished and 'appear' to start
8's **Very Good**	**Exchanges very good and interesting, no wait time** but more obvious what is happening; some distraction by competitors at actual time of exchange
7's **Good**	**Exchanges good but somewhat predictable, minimal wait time,** may stay on 1 side of pool for too long, some distraction by competitors at the actual exchange
6's **Competent**	**Exchanges ordinary and predictable with wait time,** competitors finishing a part and those starting a part are distracting
5's **Satisfactory**	**Exchanges satisfactory and simple with a lot of wait time (body boost under to finish part, waiting and surfacing to start next part);** swimming in and out of the exchanges is awkward
4's **Deficient**	Exchanges don't appear to link routine, looks like separate sections with lack of connection

APPLICABLE RULES

SS 4 SESSIONS

SS 4.4 Combination: Preliminaries/Finals

Combination has a maximum of ten (10) competitors who make a combination of routines.

SS 6 ENTRIES

SS 6.2.2

For World Championships and FINA competitions, team routines shall consist of ten (10) competitors for Combination.

SS 13 ROUTINE SESSIONS

SS 13.2

In Combination, at least two (2) parts must have fewer than three (3) competitors and at least two (2) parts must have four (4) to ten (10) competitors.

Start of first part of the routine may be on the deck or in the water.

All of the following parts must start in the water.

A new part begins where the previous part ends.

SS 13.3.2

If the lack of the reserve reduces the combination size to less than that defined in SS 6.2.2 or SS 13.2 the team shall be disqualified**.**

SS 14 TIME LIMITS FOR ROUTINES

SS 14.1.4

Combination time limit is 4 minutes 30 seconds.

SSAG 6 The time limits for age groups, including ten (10) seconds of deck movements, shall be:

Age	Combination (minutes)
12 years and under	3.30
13 , 14, 15 years	4.00
16, 17, 18 years	4.30
Juniors: 15-18 years	4.30

SS 14.1.5

There shall be an allowance of fifteen (15) seconds less or plus the allotted time for Combination.

SS 14 TIME LIMITS FOR ROUTINES

SS 14.1.6

In routine events, the walk-on of the competitors from the designated starting point to achievement of a stationary position(s) may not exceed 30 seconds. Timing shall commence when the first competitor passed the starting point and end when the last competitor becomes stationary.

SS 14 TIME LIMITS FOR ROUTINES (cont'd)

SS 14.1.7

In routine events, when the Routine starts in the water, the time allowance for the walk-on of the competitors from the designated starting point to the achievement of a starting position in the water shall not exceed 30 seconds. Timing shall commence when the first competitor moves past the starting point and end when the last competitor assumes a starting position.

SS 17 JUDGEMENT OF ROUTINES

SS 17.2.3

In the Olympic Games, World Championships and World Cups, for the Combination sessions, each judge shall award three scores, from 0-10 points.

Technical Merit - Execution, Synchronisation & Difficulty

Artistic Impression - Choreography, Music Interpretation and Manner of Presentation.

SS 18 DEDUCTIONS AND PENALTIES IN ROUTINES

A **one (1) point penalty** shall be deducted from the routine score if:

1	**SS 18.2.1** The time limit of ten (10) seconds for deck movements is exceeded
2	**SS 18.2.2** There is a deviation from the specified routine time limit allowed (less or more than) for the routine and in accordance with **SS 14.1.4**
3	**SS 18.2.3** If the time limit of 30 seconds for the deck walk-on is exceeded.
4	**SS 18.2.4** Each violation of rule **SS 13.2.**
5	SS **18.2.5** A competitor has made a deliberate use of the bottom of the pool during the routine.

A **two (2) point penalty** shall be deducted if:

1	SS **18.2.6** A competitor has made a deliberate use of bottom of the pool during a routine to assist another competitor
2	SS **18.2.7** A routine is interrupted by a competitor during the deck movements and a new start is allowed.
3	SS **18.2.8** If during the deck movements in team routines competitors are executing stacks, towers or human pyramids
4	SS **18.4** If one (or more) competitor(s) stops swimming before the routine is completed the routine will be disqualified. If the cessation is caused by circumstances beyond the control of the competitor(s), the Referee shall allow the routine to be reswum during the session.

C. TECHNICAL ROUTINES

1. SCORING A TECHNICAL ROUTINE

SS4 SESSIONS

SS4.2 Technical Routine

In the Technical Routine each Solo, Duet and Team must perform the required elements described in the Appendix VI of the Rulebook. The required elements are selected by the TSSC every four years, subject to the approval of the FINA Bureau.

SS17 Judgment of Routines

SS 17.3 Technical Routines

For Technical Routines two scores shall be awarded, 0 to 10 points each (see SS 17.1). All the following percent arrays are subject of decision of the TSSC.

SS 17.3.1 First score - Execution

Consider:

Execution of required elements: 70%

Execution of rest of the routine: 30%

SS 17.3.2 Second score – Overall Impression

Consider:	Solo	Duet	Team
Choreography, use of music	40%	40%	40%
Synchronisation	10%	20%	30%
Difficulty	30%	30%	20%
Manner of presentation	20%	10%	10%

SS 17.3.3

In the Olympic Games, World Championships and World Cups, for the Technical Routine session, the Execution judges shall record an individual score for each required element. The scorers shall calculate the Execution scores. In addition to the required elements, the Execution judges shall also consider the strokes, other figures and parts thereof, propulsion techniques and the precision of patterns.

Execution of required elements (Solo, Duet, Team) = 70%

Execution of the rest of the routine (Solo, Duet, Team) = 30 %.

SS 17.3.4 In the Olympic Games, World Championships and World Cups, for the Technical Routine session, the Overall Impression judges shall record an individual score for each component (Choreography and Use of Music, Synchronisation, Difficulty and Manner of Presentation). The scorers shall calculate the Overall Impression scores.

For Technical Routines two scores shall be awarded. 0 to 10 points each. See SS17.1

SS 17.3.1 First Score – Execution

Consider:

Execution of required elements, strokes, other figures and parts thereof, propulsion techniques and precision of patterns

Execution of required elements 70%

Execution of the rest of the routines 30%

SS 17.3.2 Second score - Overall Impression

Consider:	SOLO	DUET	TEAM
Choreography, use of music	40%	40%	40%
Synchronisation	10%	20%	30%
Difficulty	30%	30%	20%
Manner of Presentation	20%	10%	10%

Note: Judges still consider the same requirements and standards for execution, synchronisation, difficulty, choreography, use of music and manner of presentation as they do for free routines.

2. GENERAL REQUIREMENTS

1. Supplementary elements may be added.

2. Unless otherwise specified in the description of an element:

   • All figures or components thereof shall be executed according to the requirements described in appendices II-IV.

   • All elements shall be executed high and controlled, in uniform motion with each section clearly defined.

3. Duet required elements # 4, and # 9 and Team required elements # 1, # 5, # 8, and # 9 shall be judged within remaining 30 % of the Execution score.

4. Time limits as in SS 14.1.

5. FINA competitions must use category A. One category must be chosen for any specific competition. See categories B and C in FINA SS Manual.

Category A

SOLO REQUIRED ELEMENTS (A)

Required Elements 1 – 6 are to be performed in the order listed.

1. From a **Front Pike Position**, a *Full Twist* is executed as the extended legs are lifted to a **Vertical Position**. Continuing the same direction, a *Full Twist* is executed followed by a *Continuous Spin* of 1440° (4 rotations). [DD 3.3]

2. *Rocket Split* is executed to an **Airborne Split Position**, maintaining maximum height the front leg is lifted vertically as the back leg moves to a **Bent Knee Vertical Position**. The vertical leg is lowered backward toward the surface as the bent leg extends forward to assume an **Airborne Split Position**. [DD 3.1]

3. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. Immediately afterwards, a second boost with both arms above the surface is executed. A second descent is executed until the swimmer is completely submerged. [DD 2.5]

4. Beginning with a straight leg lift to a **Ballet Leg Position,** 116 - Catalarc is executed with compulsory head first travel while assuming the ballet leg. [DD 2.9]

5. *Combined Spin* is executed. A *descending Spin* of 1080° (3 rotations) followed, without a pause, by an equal *ascending Spin* in the same direction. [DD 3.0]

6. From a **Submerged Back Pike Position**, 307e - Flying Fish Spinning 360° is executed. [DD 3.2]

DUET REQUIRED ELEMENTS (A)

Required Elements 1 – 8 are to be performed in the order listed.

1. 240 c - Albatross *Twirl* is executed until completion of the rotation, followed by a *Continuous Spin* of 1440° (4 rotations). [DD 3.3]

2. From a **Back Layout Position**, travelling ballet leg combination beginning with a straight leg lift to a **Ballet Leg Position**. The horizontal leg is lifted to a **Ballet Leg Double Position**. Maintaining the **Ballet Leg Double Position** a rotation of 360° is executed, the first leg is lowered to a **Ballet Leg Position**, and the second leg is lowered to a **Back Layout Position**. The legs are held straight throughout the element. [DD 2.5]

3. Rocket Split - A *Thrust* to a **Vertical Position** followed by two rapid alternating **Airborne Split Positions**, followed by a join to a **Vertical Position** with maximum height. A *Vertical Descent* is executed. [DD 3.4]

4. A connected action – connected, joined or intertwined movements. Lifts, throws and platforms are not included.

5. Maintaining a **Fishtail Position**, three rapid *Full Twists* are executed at maximum height. [DD 2.9]

6. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

7. From a **Split Position** rotation of a 180° is executed as the legs are sym metrically lifted and closed to a **Vertical Position** followed by a *Half Twist* in the same direction. A *Twirl* is executed in the opposite direction; completed by a *Continuous Spin* of 1080° (3 rotations) in the same direction as th e *Half Twist*. *Half Twist*, *Twirl and Continuous Spin* to be executed in **Vertical Position**. [DD 2.3]

8. *Thrust* followed by a rapid *360° Spin*. [DD 2.2]

9. With the exception of the deck work, entry and a connected action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by both swimmers. Mirror actions are not permitted.

TEAM REQUIRED ELEMENTS (A)

Required Elements 1 – 7 are to be performed in the order listed.

1. Acrobatic move – Jump
   a. Two simultaneous jumps are required.
   b. Underwater set-up is optional, but all remaining swimmers must be involved.
   c. Each jump performs simultaneous identical movements facing the same direction.
   d. Each jump must rise once with supported person becoming airborne at peak of lift.

2. A *Thrust* is executed to a **Vertical Position**, maintaining maximum height a *Twirl* is executed as one leg is lowered to a **Bent Knee Vertical Position**. A *Vertical Descent* is executed as the bent knee is extended to meet the vertical leg as the ankles submerge with the same tempo as *Thrust*. [DD 2.3]

3. A Nova is executed to the completion of a **Bent Knee Surface Arch Position**; the legs are simultaneously lifted to a **Vertical Position** as the bent knee is extended. A *Continuous Spin* of 1080° (3 rotations) is executed until heels reach the surface, without submergence, followed by a rapid *Spin Up 180°*. A *Vertical Descent* is executed at the same tempo as *Spin Up 180°*. [DD 2.9]

4. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

5. Cadence Action with legs – identical leg movement(s) performed sequentially one-by-one by all team members. When more than one cadence action is performed, they must be consecutive, and not separated by other optional or required elements. There shall be at least 2 consecutive pattern changes during the cadence action.

6. From a **Front Pike Position**, porpoise lift is executed to a **Vertical Position**. A *Full Twist* is executed, then the legs are lowered symmetrically to a **Split Position**. A *Walkout Front* is executed. [DD 2.9]

7. *Rocket Split* is executed to an **Airborne Split Position**, maintaining maximum height the legs are lifted to a **Vertical Position** as *Twirl* is executed with a rapid *Vertical Descent*. [DD 2.6]

8. The pattern formations must include a straight line and circle.

9. With exception of the deck work, entry and the Cadence Action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by all team members except during the circle pattern. Variations in propulsion and direction facing are permitted only during pattern changes and underwater actions. Mirror actions are not permitted.

Category B

SOLO REQUIRED ELEMENTS (B)

Required Elements 1 – 6 are to be performed in the order listed.

1. From a **Front Pike Position**, a *Half Twist* is executed as the extended legs are lifted to a **Vertical Position**. Continuing in the same direction, a *Full Twist* is executed followed by a *Continuous Spin* (2 rotations). [DD 3.1]

2. *Rocket Split* is executed to an **Airborne Split Position**, maintaining maximum height the front leg is lifted vertically as the back leg moves to a **Vertical Bent Knee Position**. [DD 2.6]

3. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. Immediately afterward, a second boost is executed. A second descent is executed until the swimmer is completely submerged. [DD 2.5]

4. Beginning with a straight leg lift to a **Ballet Leg Position,** 116 - Catalarc is executed with compulsory head first travel while assuming the ballet leg. [DD 2.9]

5. *Combined spin* is executed. A *descending Spin* (2 rotations), followed, without a pause, by an equal *ascending Spin* in the same direction. [DD 2.3]

6. From a **Submerged Back Pike Position**, 307d - Flying Fish Spinning 180° is executed. [DD 3.1]

DUET REQUIRED ELEMENTS (B)

Required Elements 1 – 8 are to be performed in the order listed.

1. 240 c - Albatross Twirl is executed. [DD 2.7]

2. From a **Back Layout Position**, travelling ballet leg combination beginning with a straight leg lift to a **Ballet Leg Position**. The shin of the horizontal leg is drawn along the surface to assume a **Surface Flamingo Position.** From a **Surface Flamingo Position** the shin of the bent knee is extended to a **Ballet leg Position**. The ballet leg is lowered with a straight leg to a **Back Layout Position**. [DD 1.8]

3. *Rocket Split* is executed to an **Airborne Split Position**. [DD 2.1]

4. A connected action - connected, joined or intertwined movements. Lifts, throws and platforms are not included.

5. Maintaining a **Fishtail Position**, two rapid *full twists* are executed at maximum height. [DD 2.2]

6. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

7. From a **Split Position** the legs are lifted to a **Vertical Position** followed by a *Half Twist*. A *Continuous Spin* of 720° (2 rotations) is executed in the same direction as the *Half Twist*. *Half Twist* and *Continuous Spin* to be executed in **Vertical Position**. [DD 1.9]

8. *Thrust* followed by a rapid *180° Spin*. [DD 1.8]

9. With the exception of the deck work, entry and joined action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by both swimmers. Mirror actions are not permitted.

TEAM REQUIRED ELEMENTS (B)

Required Elements 1 – 7 are to be performed in the order listed.

1. Acrobatic move – Jump

   a. Two simultaneous jumps are required.

   b. Underwater set-up is optional, but all remaining swimmers must be involved.

   d. Each jump performs simultaneous identical movements facing the same direction.

   e. Each jump must rise once with supported person becoming airborne at peak of lift.

2. *Thrust* followed by a *Twirl* and completed with a rapid *Vertical Descent* in a **Vertical Position**. [DD 2.4]

3. A Nova is executed to the completion of a **Bent Knee Surface Arch Position**; the legs are simultaneously lifted to a **Vertical Position** as the bent knee is extended. A *Continuous Spin* of 720° (2 rotations) is executed until heels reach the surface, without submergence, followed by a rapid *spin up of 180°*. [DD 2.5]

4. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

5. Cadence Action with legs – identical leg movement(s) performed sequentially one-by-one by all team members. When more than one cadence action is performed, they must be consecutive, and not separated by other optional or required elements. There shall be at least 2 consecutive pattern changes during the cadence action.

6. From a **Front Pike Position**, a porpoise lift is executed to a **Vertical Position**. A *half twist* is executed, in the same direction a 180° rotation is executed while the legs are lowered symmetrically to a **Split Position**. A *Walkout Front* is executed. [DD 2.8]

7. *Rocket Split* is executed to an **Airborne Split Position**, maintaining maximum height the legs are joined to a **Vertical Position**. A rapid *Vertical Descent* is executed. [DD 2.4]

8. The pattern formations must include a straight line and circle.

9. With exception of the deck work, entry and the Cadence Action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by all team members except during the circle pattern. Variations in propulsion and direction facing are permitted only during pattern changes and underwater actions. Mirror actions are not permitted.

Category C

SOLO REQUIRED ELEMENTS (C)

Required Elements 1 – 6 are to be performed in the order listed.

1. Porpoise *Continuous Spin* of 720° (2 rotations) is executed. [DD 2.3]

2. *Rocket Split* is executed to an **Airborne Split Position**. [DD 2.1]

3. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

4. Beginning with a straight leg lift to a **Ballet Leg Position,** the *Catalina Rotation* is executed, with compulsory head first travel while assuming the ballet leg. The vertical leg is lower to a **Split Position** and the A *Walkout Front* is executed. [DD 2.6]

5. *Combined spin* is executed. A *descending Spin of 360°* (1 rotation) followed, without a pause, by an equal *ascending Spin* in the same direction. [DD 1.6]

6. From a **Submerged Back Pike Position**, 307 - Flying Fish is executed. [DD 3.0]

DUET REQUIRED ELEMENTS (C)

Required Elements 1 – 8 are to be performed in the order listed.

1. 240 - Albatross [DD 2.2]

2. From a **Back Layout Position**, travelling ballet leg combination, beginning with a straight leg lift to a **Ballet Leg Position**. The shin of the horizontal leg is drawn along the surface to assume a **Surface Flamingo Position.** From a **Surface Flamingo Position** the vertical leg is lowered as the horizontal leg is extended to a **Back Layout Position**. [DD 1.6]

3. *Rocket Split* is executed to an **Airborne Split Position**. [DD 2.1]

4. A connected action - connected, joined or intertwined movements. Lifts, throws and platforms are not included.

5. Maintaining a **Fishtail Position**, one rapid *full twist* is executed at maximum height. [DD 1.5]

6. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

7. From a **Split Position** the legs are lifted to a **Vertical Position** followed by a *Continuous Spin* of 720° (2 rotations). *Continuous Spin* to be executed in a **Vertical Position**. [DD 1.5]

8. *Thrust* followed by a *Vertical Descent* is executed at the same tempo as *the Thrust.* [DD 1.8]

9. With the exception of the deck work, entry and joined action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by both swimmers. Mirror actions are not permitted.

TEAM REQUIRED ELEMENTS (C)

Required Elements 1 – 7 are to be performed in the order listed.

1. Acrobatic move – Jump

   a. Two simultaneous jumps are required.

   b. Underwater set-up is optional, but all remaining swimmers must be involved.

   d. Each jump performs simultaneous identical movements facing the same direction.

   e. Each jump must rise once with supported person becoming airborne at peak of lift.

2. *Thrust* is executed as one foot is drawn along the inside of the other extended leg to assume a **Bent Knee Vertical Position**. A *Vertical Descent* is executed as the bent knee is extended to meet the vertical leg as the ankles submerge with the same tempo as *Thrust*. [DD 1.7]

3. A Nova is executed to the completion of a **Bent Knee Surface Arch Position**; the legs are simultaneously lifted to a **Vertical Position** as the bent knee is extended. A *continuous spin* of 720° (2 rotations) is executed. [DD 2.0]

4. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. [DD 1.7]

5. Cadence Action with legs – identical leg movement(s) performed sequentially one-by-one by all team members. When more than one cadence action is performed, they must be consecutive, and not separated by other optional or required elements.

6. From a **Front pike position**, a porpoise lift is executed to a **Vertical Position**. Then the legs are lowered symmetrically to a **Split Position**. A *walkout front* is executed. [DD 2.4]

7. *Rocket Split* is executed to an **Airborne Split Position**. The legs are joined to assume a **Vertical Position** at ankle level. A *Vertical Descent* is executed. [DD 2.3]

8. The pattern formations must include a straight line and circle.

9. With exception of the deck work, entry and the Cadence Action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by all team members except during the circle pattern. Variations in propulsion and direction facing are permitted only during pattern changes and underwater actions. Mirror actions are not permitted.

3. PENALTIES IN TECHNICAL ROUTINES

One or more - usually three - Technical Assistants are appointed to monitor the required elements in a Technical Routine event. The Referee of the event informs the scoring table when a penalty is to be applied.

Judges do not consider omissions when assigning a score.

SS 18.3 - Penalties in Technical Routines

Rule	Procedures
SS 18.3.1 A two (2) point penalty shall be deducted from the Execution score for each required element omitted by competitor in Solo or by all competitors in Duet and Team.	This penalty is to be applied only when an entire required element is completely absent and no attempt has been made to include it. If an element is attempted, but poorly executed, the judges shall take it into consideration in their score. An example of an execution error which is not considered a penalty situation: The swimmer being supported on a Platform, Stack or Jump falls during its execution.
SS 18.3.2 A one (1) point penalty shall be deducted from the Execution score for each part of a required element omitted by competitor in Solo or by all competitors in Duet or Team or if there is an incorrect /additional sequence in required element performed by competitor in Solo or by all competitors in Duet or Team.	If when performing the sixth element of team all members do not execute the twist, then a one (1) point penalty shall be deducted.
SS 18.3.3 A half-point (0,5) penalty shall be deducted from the Execution score for each competitor omitting a part of the required element, or if there is an incorrect /additional sequence in for each required element for each competitor, up to a maximum deduction of two (2) points.	When performing team element number 3 one (1) swimmer does not execute the 180º spin a 0,5 penalty is applied. When two (2) swimmers do not execute the 180º spin or any other part of the element or action, a (1.0) penalty is applied. When three (3) swimmers do not execute the 180º spin or any other part of the element or action, a (1.5) penalty is applied. When four (4) five (5) six (6) or seven (7) swimmers do not execute the 180º spin or any other part of the element or action, a (2) point penalty is applied.

SS 18.3.4 A half-point (0,5) penalty shall be deducted from the Execution score for each violation in Duet required element 9 and Team required element 9 of the Appendix VI.	
SS 18.3.5 In case of dispute about required elements, video recording may be used for final decision by the Referee.	Per **SS 24.1.9**, competition organisers are responsible for producing video records of all Technical Routines
SS 18.4 If one (or more) competitor(s) stops swimming before the routine is completed the routine will be disqualified. If the cessation is caused by circumstances beyond the control of the competitor(s), the Referee shall allow the routine to be reswum during the session.	

4. SOLO REQUIRED ELEMENTS – ANALYSIS

SOLO ELEMENT 1

1. From a **Front Pike Position**, a *Full Twist* is executed as the extended legs are lifted to a **Vertical Position**. Continuing the same direction, a *Full Twist* is executed followed by a *Continuous Spin* of 1440°(4 rotations). [DD 3.3]

Handbook Description	Basic Positions	Basic Move	Desired Actions
a) From a **Front Pike Position**, a *Full Twist* is executed as the extended legs are lifted to a **Vertical Position.**	1. In **Front Pike Position (BP6)** body bent at hips to form a 90° angle. Legs are extended and together Trunk extended with the back straight and the head in line. 2. In **Vertical Position** (**BP6)** body extended perpendicular to the surface, legs together head down		1. Without movement of the trunk from the vertical alignment the legs are simultaneously lifted to the vertical position. 2. The hips rotate around the longitudinal axis. 3. During the rotation, the legs rise evenly so that when 180° has been completed the legs should be at 45° to the surface. 4. In vertical position judgment made by checking visual points of the vertical alignment; ear, shoulder, hip, and ankles in line.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) Continuing in the same direction as a *Full Twist* is executed	1. In **Vertical Position (BP6)** body extended perpendicular to the surface, legs together head down. Ears, shoulders, hips and ankles in vertical alignment	1. A *Twist* is a rotation at sustained height. 2. The body remains on its longitudinal axis throughout the rotation. **(BM12b)**	1. Water line remains constant during rotation. Stability and alignment of position evident before, during and upon completion of the *Twist.* Amount of height is judged by the relationship of the hip joint to the surface of the water, with credit given to maximum height. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. Rotation around this central axis. 3. Rotation must be precisely 360°.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) completed by a *Continuous Spin* of 1440°(4 rotations) in the same direction.	1. Same as 1 above **(BP6).**	1. A *Spin* is a rotation in a **Vertical Position**. 2. The body remains on its longitudinal axis throughout the rotation. 3. A *Continuous Spin* is a descending spin with a rapid rotation of exactly 1440° which is completed before the heels reach the surface and continues through submergence. **(BM13f)**	1. Height and locked position attained before the spin begins. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. 3. Stability and vertical alignment before, during and at completion of the designated rotation. 4. A *Continuous Spin* must achieve and maintain a fast rotation throughout. Each rotation should be the same rapid speed. 5. The spin must be exactly 1440° as the heels reach the surface and it continues through the surface. 6. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Design, Position, Axis rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design.	Minor deviation in design.	Deviations are few and minor.	Some major errors or many minor problems.
Stable Height	Upper mid-thigh.	Maintained between upper-thigh and mid-thigh.	Maintained between mid-thigh and above the knee.	Above the knee.	At the knee cap.
Control, Uniform motion, Extension	Excellent fluidity; near perfection and excellent extension.	Excellent fluidity and good extension.	Good fluidity and good extension.	Control with uniform motion; incomplete extension.	Irregular motion and minimal extension.

SOLO ELEMENT 2

8. *Rocket Split* is executed to an **Airborne Split Position**, maintaining maximum height the front leg is lifted vertically as the back leg moves to a **Vertical Bent Knee Position**. The vertical leg is lowered toward the surface as the bent leg extends forward to assume an **Airborne Split Position**. [DD 3.1]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just under the surface.	1. Body in **Back Layout Position (BP1)** extended with face, chest, thighs and feet at the surface**.** 2. Head (ears specifically), hips and ankles in line.		1. Legs raised to vertical as the body submerges. 2. Legs and body fully extended. 3. Legs as close to the chest as possible without sacrificing the straight line alignment of the extended spine and head. 4. Full extension of the legs, ankles and feet. 5. Back flat, with ear, shoulder joint, middle side of torso, and hip joint aligned. 6. Once position is established, the degree of angle remains constant. 7. Lift of legs is slower than the thrust
b) a *Thrust* to **Vertical Position** (The legs must be perpendicular to the surface in the **Back Pike Position** prior to the *Thrust*.)	1. Body bent at hips to form an acute angle of 45° or less. 2. Legs extended and together. 3. Trunk extended, with the back straight and head in line. **(BP11)**		1. Legs as close to the chest as possible without sacrificing the straight line alignment of the extended spine and head. 2. Full extension of the legs, ankles and feet. 3. Back flat, with ear, shoulder joint, middle side of torso, and hip joint aligned. 4. Once position is established the degree of angle remains constant. 5. The legs need not be perpendicular to the surface in the **Back Pike Position** prior to the *Thrust*.

		1. From a **Back Pike Position (BP11)** with legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position (BP6)**. 2. Maximum height is desirable. **(BM8)**	1. Once established, the degree of angle should not change prior to initiation of the unrolling action. 2. The unrolling action starts with the toes just under the surface. 3. The body unrolls under the legs to assume **Vertical Position** along the same perpendicular line established by the legs in the **Back Pike Position**. 4. Obvious increase in speed of action must be evident. 5. Maximum height and **Vertical Position** achieved simultaneously.
	1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line. **(BP6)**		1. Full extension of the body. 2. Judgment made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) maintaining maximum height the legs are split rapidly to assume an **Airborne Split Position**	1. Legs evenly split forward and back. The legs are parallel to the surface. Lower back arched, with hips, shoulders and head on a vertical line. 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips. 2. Legs are above the surface.	1. maintaining maximum height the legs are split rapidly to assume an **Airborne Split Position**	1. Split action should begin after the **Vertical Position** is achieved. 2. Legs must be lowered to 180°. 3. Speed of split action should be rapid.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) maintaining maximum height the front leg is lifted vertically as the back leg moves to a **Vertical Bent Knee Position**.	1. **Bent Knee Vertical Position (14c)** 2. Body extended in **Vertical Position**, with the toe of the bent leg at the knee or thigh.		1. No loss of height during the action from the **Airborne split Position** to the **Bent Knee Vertical Position (14c).** 2. Legs should reach **Bent Knee Vertical Position** at same time.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) The vertical leg is lowered toward the surface as the bent leg extends forward to assume an **Airborne Split Position**.	1. From **Bent Knee Vertical Position (14c)** legs move to **Airborne split Position (BP16c)**. Legs evenly split forward and back. The legs are parallel to the surface. Lower back arched, with hips, shoulders and head on a vertical line. 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips. 2. Legs are above the surface.		1. No loss of height during the action from the **Bent Knee Vertical Position** to the **Airborne split Position.** 2 Legs must be lowered to 180°. 3. Speed of split action should be rapid.

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Dynamic Height	Lower ribs or higher.	Pelvis points.	Upper thigh.	Through knee cap.
Body Position	Almost always accurate; clear and precise.	May lack some accuracy.	Many minor problems.	Identifiable but very inaccurate throughout.
Performance	Very minor signs of effort. Stable and well extended.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.	Struggling. Many major problems.

SOLO ELEMENT 3

9. Boost – a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the swimmer is completely submerged. Immediately afterwards, a second boost is executed. [DD 2.5] This must also submerge totally

Handbook Description	Basic Position	Basic Move	Desired Actions
a) *Boost* - a rapid head-first rise, with a maximum amount of the body above the surface of the water.			1. Beginning of the rise may be at or beneath the surface. 2. Speed in the rise. 3. Control in the maximum height.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) Both arms must be lifted above the line of the shoulders as the body reaches maximum height.			1. When maximum height is reached by the body, the two arms are also at maximum height. 2. Position of arms is optional but must be above the line of the shoulders.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) A descent is executed until the swimmer is completely submerged.			1. Manner of descent is optional. 2. Descent of the whole body and the whole two arms must arrive completely under the surface.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) immediately afterwards, a second boost is executed			1. When maximum height is reached by the body, the two arms are also at maximum height. 2. Position of arms is optional but must be above the line of the shoulders.
e) A descent is executed until the swimmer is completely submerged			1. Manner of descent is optional. 2. Descent of the whole body and the whole two arms must arrive completely under the surface.

Scores						
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**	**4 to 4.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**	**Deficient**
Speed/Control	Fast; Control in maximum height.	Fast; Less control in maximum height.	Less speed, less control in maximum height.	Less speed, lack of control in maximum height.	Less speed, no control in maximum height.	Not enough speed, no control in maximum height.
Dynamic Height	At crotch (air between the legs).	Crotch to mid-pelvis.	Top of pelvis.	Waist.	Lower ribs.	Arm pit.
Descent	Complete submergence after the descent.	Complete submergence after the descent.	Less control in the descent.	Irregularity in the descent.	Irregularity in the descent.	Irregularity and travel in the descent.

SOLO ELEMENT 4

10. Beginning with a straight leg lift to a **Ballet Leg Position,** 116 - Catalarc is executed with compulsory head first travel while assuming the ballet leg. [DD 2.9]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) Beginning with a straight leg lift to a **Ballet Leg Position**	**Ballet Leg Position (BP3a)** 1. Body in **Back Layout Position (BP1)** extended with face, chest, thighs and feet at the surface**.** 2. Head (ears specifically), hips and ankles in line. 3. One leg extended perpendicular to the surface.		1. Gives the impression that the body is stretched horizontally to its maximum. Front of the trunk will also be at the surface of the water. 2. Judgment made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint, and ankle. This imaginary line should also pass through the middle of the side of the trunk. 3. 90º angle between extended leg and surface. Angle of ballet leg to trunk as close to 90º as possible. Ear, shoulder joint, hip joint and ankle of horizontal leg as close as possible to horizontal alignment. 4. Travel throughout.
b) A *Catalina* Rotation is executed	1. **Crane Position (BP7).** Body extended in **Vertical Position,** with one leg extended forward at a 90°angle to the body.	1. From a **Ballet Leg Position** a rotation of the body is initiated. (**BM7).**The head, shoulders and trunk begin the rotation at the surface while descending without lateral movement to a **Crane Position (BP7).** The angle between the legs remains 90° throughout the rotation	1. Full extension of the legs at a 90º angle to the surface. 2. Rotation initiated from the surface 3. Body and legs kept within the same lateral plane. 4. Clear side 'Y' position shown. 5. Body extended throughout with head in line. 6. Smooth rotation to **Crane Position.**

Handbook Description	Basic Position	Basic Move	Desired Actions
c) The horizontal leg is lifted in a 180°arc over the surface. As it passes the vertical leg, the vertical leg starts to move symmetrically in the opposite direction, and the legs reach a **Split Position** at the same time	**Split** (**BP16)** 1. Legs evenly split forward and back, with feet and thighs at the surface. 2. Lower back arched, with hips, shoulders and head on a vertical line. 180°angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips.		1. Simultaneous lift of leg and descent of body, with foot of arcing leg coming off the surface as the head goes under. 2. Height constant with hips as pivot point. 3. Head comes into line under hips as foot of arcing leg passes vertical. 4. Maximum height and uniform motion of leg arcing to **Split Position**. 5. Non-arcing leg remains at surface. 6. Flat split, with inside of each leg aligned on opposite sides of a horizontal line. 7. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments “square” and parallel to each other.
a) A *Walkout Front* is executed.	1. Body arched in **Surface Arch Position (BP14d).** The thigh of the bent leg is perpendicular to the surface.	1. The front leg is lifted in a 180° arc over the surface to meet the opposite leg in a **Surface Arch Position** and with continuous movement an *Arch to Back Layout* is executed. **(BM6**)	1. Hip height remains constant and as close to the surface as possible. 2. Arcing leg moves continuously at an even tempo. 3. Both legs maintain full extension. 4. Trunk maintains same position until the feet join. 5. An accurate **Surface Arch Position** should be evident before the body begins to rise and straighten. 6. Foot first surfacing motion begins when the feet are joined.
	1. Lower back arched, with hips, shoulders and head on a vertical line. 2. Legs together and at the surface. **(BP13)**	1. From a **Surface Arch Position (BP13),** the hips, chest and face surface sequentially at the same point, with foot first movement to a **Back Layout Position (BP1)** until the head occupies the position of the hips at the beginning of this action. **(BM6)**	1. Sharp arch in lower back. The body straightens, rises and moves along the surface simultaneously, with a stationary **Back Layout Position** achieved as the face surfaces. 2. In the walkout, travel along the surface may continue after the head replaces the hips and the face surfaces. 3. Full body extension maintained throughout.

	Back layout (BP1) 1. Body extended with face, chest, thighs and feet at the surface. 2. Head (ears specifically), hips and ankles in line.		1. Gives the impression that the body is stretched horizontally to its maximum. Front of the trunk will also be at the surface of the water. 2. Judgment made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint, and ankle. This imaginary line should also pass through the middle of the side of the trunk.

Back Layout to Ballet Leg

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Clarity and definition	Deviations are few and minor. Precise, clear, clean.	Clear distinction, but not always precise.	Some attempt to define positions, but often not clear.	Imprecise, blurred and very hazy.
Extension	Very well extended.	Full extension not maintained throughout.	Minimal extension.	Struggling.
Stable Height	At top of thigh.	Mid-thigh.	Above knee cap.	Below knee cap.
Propulsion	Strong travel, fluid.	Good travel.	Weaker travel.	Feeble travel.

Catalarc from Ballet Leg to Back Layout

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Height	Close to maximum with minimal level changes.	Moderately high on easy parts.	Some height may be evident in easier sections.	Low.
Body Position	Almost always accurate; clear and precise. Rotation initiated at surface and no lateral deviation	May lack some accuracy. Rotation initiated at near to surface and minimal lateral deviation	Many minor problems. Rotation not initiated from the surface. Some lateral movement of the trunk	Identifiable but very inaccurate throughout.
Performance	Very minor signs of effort. Stable and well extended.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.	Struggling. Many major problems.
Motion	Few minor variations.	Tempo changes.	Often rushed.	Uneven tempo.

SOLO ELEMENT 5

11. *Combined Spin* is executed. A descending *Spin* of 1080° (3 rotations) followed, without a pause, by an equal ascending *Spin* in the same direction. [DD 3.0]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Vertical Position**,	1. Body extended, perpendicular to the surface, legs together, head downward. Head (ears specifically), hips and ankles in line (**BP6)**		1. Gives the impression that the body is stretched horizontally to its maximum. 2. Judgement made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) A *Combined Spin* is executed A descending *Spin* of 1080° (3 rotations) followed, without a pause, by an equal ascending *Spin* in the same direction.	1. Same as 1 above **(BP6).**	1. A *Spin* is a rotation in a **Vertical Position**. 2. The body remains on its longitudinal axis throughout the rotation. 3. A *Combined Spin is a* descending spin of exactly 1080° followed without a pause by an equal *ascending Spin* in the same direction. The *ascending Spin* reaches the same height where the *descending Spin* started. **(BM13j)**	1. Height and locked position attained before the spin begins. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. 3. Stability and vertical alignment before, during and at completion of the designated rotation. 4. The descending and ascending spins must be at the same speed. 5. The spin must be exactly 1080° as the heels reach the surface and without pause an equal ascending spin is executed. 6. There must be even spaces on both the descending and ascending spins. 7. Heights of beginning of a *Descending Spin* and finish of an *Ascending Spin* are the same.

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Height	Close to maximum with minimal level changes.	Moderately high on easy parts.	Some height may be evident in easier sections.	Low.
Body Position	Almost always accurate; clear and precise.	May lack some accuracy.	Many minor problems.	Identifiable but very inaccurate throughout.
Performance	Very minor signs of effort. Stable and well extended.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.	Struggling. Many major problems.
Motion	Few minor variations.	Tempo changes.	Often rushed.	Uneven tempo.

SOLO ELEMENT 6

12. 307e - Flying Fish Spin 360° [DD 3.2]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just under the surface.	1. Body in **Back Layout Position (BP1)** extended with face, chest, thighs and feet at the surface**.** 2. Head (ears specifically), hips and ankles in line.		1. Legs are lifted as the body submerges. 2. Legs and body fully extended. 3. Legs as close to the chest as possible without sacrificing the straight line alignment of the extended spine and head. 4. Full extension of the legs, ankles and feet. 5. Back flat, with ear, shoulder joint, middle side of torso, and hip joint aligned. 6. Once position is established, the degree of angle remains constant. 7. Lift of legs is slower than the thrust.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) A *Thrust* is executed	1. Body bent at hips to form an acute angle of 45° or less. 2. Legs extended and together. 3. Trunk extended, with the back straight and head in line. **(BP11)**	1. From a **Back Pike Position (BP11)** with legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position (BP6)**. 2. Maximum height is desirable. **(BM9)**	1. Once established, the degree of angle should not change prior to initiation of the unrolling action. 2. The unrolling action starts with the toes just under the surface. 3. The body unrolls under the legs to assume **Vertical Position** along the same perpendicular line established by the legs in the **Back Pike Position**. 4. Obvious increase in speed of action must be evident. 5. Maximum height and **Vertical Position** achieved simultaneously. 6. Height should be judged by the level of the hips above the surface of the water.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) with no loss of height one leg is rapidly lowered to a **Fishtail Position** and without a pause the horizontal leg is rapidly lifted to a **Vertical Position**.	**1. Fishtail Position (BP8)** Body extended in **Vertical Position,** with one leg extended forward at a (90°angle to the body) the foot of the forward leg is at the surface, regardless of the height of the hips. 2. **Vertical Position (BP6)** Body extended perpendicular to the surface, legs together, head downward. Head (ears specifically), hips and ankles in line.		1. Vertical body and leg alignment maintained throughout. 2. One leg lowered rapidly until the foot hits the surface. 3. The leg raised rapidly returning to the **Vertical Position.** 3. Both legs remain fully extended throughout the action. 4. Constant height is desirable. 5. Height should be judged from the level of the hips in relationship to the surface.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) followed by a rapid *360° Spin.*	1. **Vertical Position (BP6)** All points as in 2 above	1. A *Spin* is a rotation in a **Vertical Position (BP6)**. 2. The body remains on its longitudinal axis throughout the rotation. 3. Unless otherwise stated, spins are executed in a uniform motion. **(BM11)** 4. A *Descending Spin* must start at the height of the vertical and be completed as the heels reach the surface. 5. Unless otherwise specified, a *Descending Spin* is finished with a *Vertical Descent*. 6. Maintaining a **Vertical Position**, the body descends along its longitudinal axis until the toes are submerged. **(BM10**) 7. *360° Spin*: a *Descending Spin* with a rotation of 360°. **(BM13e)**	1. Height and locked position attained before the spin begins. 2. The longitudinal axis runs through the centre of the body and is perpendicular to the surface of the water. 3. The rotation and descent are at the same tempo as the thrust. 4. Stability and vertical alignment before, during and at the completion of the rotation. 5. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. 6. Amount of rotation of *360° Spin* must be exact. 7. Movement completed with a vertical descent until the toes are submerged.

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Dynamic Height	Lower ribs or higher.	Pelvis points.	Upper thigh.	Through knee cap.
Body Position	Almost always accurate; clear and precise.	May lack some accuracy.	Many minor problems.	Identifiable but very inaccurate throughout.
Performance	Very minor signs of effort. Stable and well extended.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.	Struggling. Many major problems.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Design, Position, Axis rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design.	Minor deviation in design.	Deviations are few and minor.	Some major errors or many minor problems.
Control, Uniform motion, Extension	Excellent fluidity; near perfection and excellent extension.	Excellent fluidity and good extension.	Good fluidity and good extension.	Control with uniform motion; incomplete extension.	Irregular motion and minimal extension.

5. DUET REQUIRED ELEMENTS – ANALYSIS

DUET ELEMENT 1

240 c – Albatross Twirl is executed until completion of the rotation, followed by a *Continuous Spin* of 1440° (4 rotations). [DD 3.3]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) 240 c – Albatross Twirl is executed until completion of the rotation,	1. See description of Figure 240 c Albatross Twirl.	1. See description of Figure 240 c Albatross Twirl.	1. See description of Figure 240 c Albatross Twirl.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) followed by a *Continuous Spin* of 1440° (4 rotations).	**Vertical Position (BP6)** 1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line.		1. Full extension of the body. 2. Judgement made by checking visual points of the vertical alignment; ear, shoulder joint, hip joint, and ankle.
		***Continuous Spin* (BM13f)** 1. A *Spin* is a rotation in a **Vertical Position**. **(BP6)** 2. The body remains on its longitudinal axis throughout the rotation. 3. Unless otherwise stated, *Spins* are executed in a uniform motion. 4. A *descending Spin* must start at the height of the vertical and be completed as the heel(s) reach(es) the surface. 5. A *Continuous Spin* is a *descending Spin* with a rapid rotation of: 720° (2), 1080° (3), or 1440° (4) which is completed as the heels reach the surface and continues through submergence.	1. See the desired actions of the **Vertical Position (BP6)** above. 2. Height and locked position attained before the *spin* begins. 3. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis (no traveling). 4. Stability and vertical alignment before, during and at completion of the designated rotation. 5. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. 6. Amount of rotation of 1440° *Spins* must be exact. 7. A *Continuous Spin* must achieve and maintain a fast rotation throughout. Each rotation should be the same rapid speed. 8. When a *Spin* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Spin* as defined in the FINA Handbook.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Stable Height	Upper mid-thigh.	Maintained between upper-thigh and mid-thigh.	Maintained between mid-thigh and above the knee cap.	Above the knee cap.	At the knee cap.
Design, Position, Axis Rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design. Little traveling.	Minor deviation in design. Some traveling.	Several minor deviations. Traveling evident.	Some major errors or many minor problems. Significant traveling.
Control, Uniform Motion, Extension	Excellent fluidity; near perfection and excellent extension.	Excellent fluidity and good extension.	Good fluidity and good extension.	Control with uniform motion; incomplete extension.	Irregular motion and minimal extension.

DUET ELEMENT 2

From a **Back Layout Position**, traveling ballet leg combination beginning with a straight leg lift to a **Ballet Leg Position.** The horizontal leg is lifted to a **Ballet Leg Double Position**. Maintaining the **Ballet Leg Double Position** a rotation of 360° is executed, the first leg is lowered to a **Ballet Leg Position**, the second leg is lowered to a **Back Layout Position**. The legs are held straight throughout the element. [DD 2.5]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Back Layout Position**, traveling ballet leg combination beginnings with a straight leg lift to a **Ballet Leg Position**.	**Back Layout Position (BP1)** 1. Body extended with face, chest, thighs and feet at the surface. 2. Head (ears specifically), hips, and ankles in line.		1. Gives the impression that the body is stretched horizontally to its maximum. Front of the trunk will also be at the surface of the water. 2. Judgment made by checking visual points of the horizontal alignment: ear, shoulder joint, hip joint, and ankle. This imaginary line should also pass through the middle of the side of the trunk.
	Ballet Leg Position (BP3a) 1. Body in **Back Layout Position (BP1).** 2. One leg extended perpendicular to the surface.		1. See the desired actions of the **Back Layout Position (BP1)** above. 2. Maintain horizontal position during leg lift. Legs and body extended during leg lift. 3. 90º angle between extended leg and surface. Angle of ballet leg to trunk as close to 90º as possible. Ear, shoulder joint, hip joint and ankle of horizontal leg as close as possible to horizontal alignment. 4. Travel throughout. Directions before and after a rotation of 360° must be same (either head first or foot first).

Handbook Description	Basic Position	Basic Move	Desired Actions
b) The horizontal leg is lifted to a **Ballet Leg Double Position**.	**Ballet Leg Double Position (BP5a)** 1. Legs together and extended perpendicular to the surface. 2. Head in line with the trunk. 3. Face at the surface.		1. Full extension of the legs at a 90º angle to the surface. 2. Chest close to the surface with the shoulders back. Ear, hip and shoulder joint aligned, with the spine straight and extended. 3. Travel throughout.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) Maintaining the **Ballet Leg Double Position** a rotation of 360° is executed,	1. See above. **(BP5a)**		1. See the desired actions of the **Ballet Leg Double Position (BP5a**) in b) above. 2. Maintain position on the surface while rotating 360°. 3. Stationary during a rotation of 360°.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) the first leg is lowered to a **Ballet Leg Position**,	1. See above. **(BP3a)**		1. See the desired actions of the **Back Layout Position (BP1**) in a) above. 2. See the desired actions of the **Ballet Leg Position (BP3a)** in a) above. 3. Travel begins again.

Handbook Description	Basic Position	Basic Move	Desired Actions
e) the second leg is lowered to a **Back Layout Position**. The legs are held straight throughout the element.	1. See above. **(BP1)**		1. See the desired actions of the **Back Layout Position (BP1)** in a) above. 2. Maintain straight legs throughout all actions during the element.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Clarity and Definition	Deviations are few and minor. Precise, clear, clean.	Minor deviations in positions. No major errors.	Clear distinction, but not always precise.	Significant errors.	Some attempt to define positions, but often not clear.
Extension	Very well extended.	Minor lapses in extension.	Full extension not maintained throughout.	Major extension errors.	Minimal extension.
Stable Height	At top of thigh.	Upper thigh.	Mid-thigh.	Low-thigh.	Above knee cap.
Propulsion	Strong travel, fluid.	Strong travel, but strained in difficult parts.	Good travel.	Travel evident.	Weaker travel.

DUET ELEMENT 3

Rocket Split – A *Thrust* to a **Vertical Position** followed by two rapid alternating **Airborne Split Positions**, followed by a join to a **Vertical Position** with maximum height. A *Vertical Descent* is executed.

Handbook Description	Basic Position	Basic Move	Desired Actions
		***Rocket Split* (BM11)** 1. A *Thrust* **(BM9)** is executed to a **Vertical Position (BP6)**, maintaining maximum height the legs are split rapidly to assume an **Airborne Split Position (BP16b)** and rejoin to a **Vertical Position (BP6),** followed by a *Vertical Descent* **(BM10).** 2. The *Vertical Descent* **(BM10)** is executed at the same tempo as a *Thrust* **(BM9).**	1. See the desired actions listed below.
a) A *Thrust* to a **Vertical Position**		***Thrust* (BM9)** 1. From a Submerged **Back Pike Position (BP11),** with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position (BP6)**. 2. Maximum height is desirable.	1. Once established, the degree of the angle should not change prior to initiation of the unrolling action. 2. The unrolling action starts with the toes just under the surface. 3. The body unrolls under the legs to assume a **Vertical Position (BP6)** along the same perpendicular line established by the legs in the **Back Pike Position (BP11)**. 4. Obvious increase in speed of action must be evident. 5. Maximum height and **Vertical Position (BP6)** achieved simultaneously.

	Back Pike Position (BP11) 1. Body bent at hips to form an acute angle of 45° or less. 2. Legs extended and together. 3. Trunk extended, with the back straight and head in line.		1. Legs as close to the chest as possible, without sacrificing the straight line alignment of the extended spine and head. 2. Full extension of the legs, ankles and feet. 3. Back flat, with ear, shoulder joint, middle side of torso, and hip joint aligned. 4. Once position is established, the degree of angle remains constant.
	Vertical Position (BP6) 1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line.		1. Full extension of the body. 2. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) followed by two rapid alternating **Airborne Split Positions,**	**Airborne Split Position (BP16b)** 1. Legs evenly split forward and back. 2. The legs are parallel to the surface. 3. Lower back arched, with hips, shoulders and head on a vertical line. 4. 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips. 5. Legs are above the surface.		1. Split action should begin after the **Vertical Position (BP6)** is achieved. 2. Flat split, with inside of each leg aligned on opposite sides of a horizontal line. 3. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to each other. 4. Both splits should be equal splits. 5. Speed of split action should be rapid and same tempo for both split actions. 6. No loss of height during the alternating split action.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) followed by a join to a **Vertical Position** with maximum height.	1. See above. **(BP6)**		1. No loss of height during the alternating split action and join to vertical. 2. Legs should reach **Vertical Position (BP6)** at same time. 3. See the desired actions of the **Vertical Position (BP6)** in a) above.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) A *Vertical Descent* is executed.	1. See above. **(BP6)**	***Vertical Descent* (BM10)** 1. Maintaining a **Vertical Position (BP6)**, the body descends along its longitudinal axis until the toes are submerged.	1. Unless otherwise stated, the tempo of descent is uniform and at the same speed as the rest of the figure. 2. As specified in the *Rocket Split* **(BM11)** in a) above, the *Vertical Descent* **(BM10)** is at the same tempo as the *Thrust* ***(BM9)*.** 3. See the desired actions of the **Vertical Position (BP6)** in a) above.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/ Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Dynamic Height	Lower ribs or higher.	Waist.	Pelvis points.	Crotch level.	Upper thigh.
Body Position	Almost always accurate; clear and precise.	Mostly accurate. No major errors.	May lack some accuracy. Generally clear.	Some major errors.	Significant errors.
Performance	Very minor signs of effort. Stable and well extended.	No major errors. Ability to achieve excellence part of the time. Some instability.	Many minor errors. Performance deteriorates.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.

DUET ELEMENT 4

A connected action – connected, joined or intertwined movements. Lifts, throws and platforms are not included.

Handbook Description	Basic Position	Basic Move	Desired Actions
a) A connected action – connected, joined or intertwined movements. Lifts, throws and platforms are not included.			1. Competitors are connected (touching) in some manner. 2. Length of time connected not specified. Competitors can stay connected with any body part. 3. Connected action may be any figure, float, stroking, etc. Specific action is not defined. 4. Lift, throws and platforms are not permitted.

Scores					
Criteria	9 to 9.9	8 to 8.9	7 to 7.9	6 to 6.9	5 to 5.9
	Excellent/ Near Perfect	Very Good	Good	Competent	Satisfactory
To be discussed at the Judges School.					

DUET ELEMENT 5

Maintaining a **Fishtail Position**, three rapid *Full Twists* are executed at maximum height. [DD 2.9]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) Maintaining a **Fishtail Position**,	**Vertical Position (BP6)** 1. Body extended perpendicular to the surface, head downward. 2. Head (ears specifically), hips and ankles in line.		1. Full extension of the body. 2. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle.
	Fishtail Position (BP8) 1. Body extended in **Vertical Position (BP6),** with one leg extended forward and the foot of the forward leg is at the surface, regardless of the height of the hips.		1. See the desired actions of the **Vertical Position (BP6)** above. 2. The foot of the forward leg must be at the surface. 3. Hip joints must be on a horizontal line.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) three rapid *Full Twists* are executed at maximum height.		***Full Twist* (BM12b)** 1. A *Twist* is a rotation at a sustained height. 2. The body remains on its longitudinal axis throughout the rotation. 3. *Full Twist* is a *Twist* of 360°.	1. See the desired actions of the **Vertical Position (BP6)** and **Fishtail Position (BP8)** in a) above. 2. Water line remains constant during the rotation. Stability and alignment of position evident before, during and upon completion of the *Twist*. Amount of height is judged by the relationship of the hip joint to the surface of the water, with credit given to maximum height. 3. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis. 4. Each rotation must be precisely 360°. 5. It is desirable to achieve and maintain a fast rotation throughout. Each rotation should be the same rapid speed. 6. There is a very short pause between *Twists*. 7. When a *Twist* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Twist* as defined in the FINA Handbook.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/ Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Stable Height	Back of horizontal leg dry.	Upper thigh.	Mid thigh.	Low thigh.	Above knee cap.
Design, Position, Axis Rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design. Little traveling.	Minor deviation in design. Some traveling.	Several minor deviations. Traveling evident.	Some major errors or many minor problems. Significant traveling.
Speed/Control	Very fast and consistent rapid speed throughout; Flawless control.	Fast, with speed deteriorating in last twist; Less control and stability.	Less speed with speed deteriorating in last 2 twists; Less control and stability.	Less speed; Lack of control on all twists.	Less speed; No control.

DUET ELEMENT 6

Boost - a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted at or above the shoulder line as the body reaches maximum height. A descent is executed until the competitor is completely submerged. [DD 1.7]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) Boost - a rapid head-first rise, with a maximum amount of the body above the surface of the water.			1. Beginning of the rise may be at or beneath the surface. 2. Speed in the rise. 3. Control in the maximum height.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) Both arms must be lifted at or above the shoulder line as the body reaches maximum height.			1. When maximum height is reached by the body, the two arms are also at maximum height. 2. Position of arms is optional.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) A descent is executed until the competitor is completely submerged.			1. Manner of descent is optional. 2. Descent of the whole body and the whole two arms must arrive completely under the surface.

Scores						
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**	**4 to 4.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**	**Deficient**
Speed/Control	Fast; Control in maximum height.	Fast; Less control in maximum height.	Less speed, less control in maximum height.	Less speed, lack of control in maximum height.	Less speed, no control in maximum height.	Not enough speed, no control in maximum height.
Dynamic Height	At crotch (air between the legs).	Crotch to mid-pelvis.	Top of pelvis.	Waist.	Lower ribs.	Arm pit.
Descent	Complete submergence after the descent.	Complete submergence after the descent.	Less control in the descent.	Irregularity in the descent.	Irregularity in the descent.	Irregularity and travel in the descent.

DUET ELEMENT 7

From a **Split Position,** a rotation of a 180° is executed as the legs are symmetrically lifted and closed to a **Vertical Position,** followed by a *Half Twist* in the same direction. A *Twirl* is executed in the opposite direction; completed by a *Continuous Spin* of 1080° (3 rotations) in the same direction as the *Half Twist*. *Half Twist*, *Twirl* and *Continuous Spin* to be executed in a **Vertical Position**. [DD 2.3]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Split Position**,	**Split Position (BP16a)** 1. Legs evenly split forward and back. 2. The legs are parallel to the surface. 3. Lower back arched, with hips, shoulders and head on a vertical line. 4. 180° angle between the extended legs (Flat split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips. 5. Legs are "dry" at the surface.		1. Flat split, with inside of each leg aligned on opposite sides of a horizontal line. 2. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to each other.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) a rotation of a 180° is executed as the legs are symmetrically lifted and closed to a **Vertical Position**,			1. During the close, both legs are to remain equidistant from the surface at all times. 2. Height remains constant and longitudinal axis maintained during the rotation. 3. Simultaneous completion of rotation and achievement of **Vertical Position (BP6)** as the feet join. 4. Stability and control evident throughout.
	Vertical Position (BP6) 1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line.		1. Full extension of the body. 2. Judgement made by checking visual points of the vertical alignment; ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) followed by a *Half Twist* in the same direction.		***Half Twist* (BM12a)** 1. A *Twist* is a rotation at a sustained height. 2. The body remains on its longitudinal axis throughout the rotation. 3. *Half Twist* is a *Twist* of 180◦.	1. Water line remains constant during the rotation. Stability and alignment of position evident before, during and upon completion of the *Twist*. Amount of height is judged by the relationship of the hip joint to the surface of the water, with credit given to maximum height. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis. 3. The rotation must be precisely 180°. 4. See the desired actions of the **Vertical Position (BP6)** as in b) above. 5. When a Twist is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Twist* as defined in the FINA Handbook.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) A *Twirl* is executed in the opposite direction;		***Twirl* (BM12c)** 1. A *Twist* is a rotation at a sustained height. 2. The body remains on its longitudinal axis throughout the rotation. 3. *Twirl* is a rapid Twist of 180◦.	1. See the desired actions of the *Half Twist* **(BM12a)** in c) above. 2. See the desired actions of the **Vertical Position (BP6)** in b) above. 3. The rotation must be precisely 180◦. 4. Definite increase in speed. 5. Stability of body alignment and water line during and after the completion of the *Twirl*.

Handbook Description	Basic Position	Basic Move	Desired Actions
e) completed by a *Continuous Spin* of 1080◦ (3 rotations) in the same direction as the *Half Twist. Half Twist, Twirl* and *Continuous Spin* to be executed in a **Vertical Position**.		***Continuous Spin* (BM13f)** 1. A *Spin* is a rotation in a **Vertical Position**. **(BP6)** 2. The body remains on its longitudinal axis throughout the rotation. 3. Unless otherwise stated, *Spins* are executed in uniform motion. 4. A *descending Spin* must start at the height of the vertical and be completed as the heel(s) reach(es) the surface. 5. A *Continuous Spin* is a *descending Spin* with a rapid rotation of: 720° (2), 1080° (3), or 1440° (4) which is completed as the heels reach the surface and continues through submergence.	1. See the desired actions of the **Vertical Position (BP6)** in b) above. 2. Height and locked position attained before the *spin* begins. 3. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis (no traveling). 4. Stability and vertical alignment before, during and at completion of the designated rotation. 5. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. 6. Amount of rotation of 1080° *Spins* must be exact. 7. A *Continuous Spin* must achieve and maintain a fast rotation throughout. Each rotation should be the same rapid speed. 8. When a *Spin* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Spin* as defined in the FINA Handbook.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Stable Height	Upper mid thigh.	Maintained between upper-thigh and mid-thigh.	Maintained between mid-thigh and above the knee cap.	Above the knee cap.	At the knee cap.
Design, Position, Axis Rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design. Little traveling.	Minor deviation in design. Some traveling.	Several minor deviations. Traveling evident.	Some major errors or many minor problems. Significant traveling.
Speed/Control	Very precise attention to changes in tempo.	Mostly followed described tempo of each component.	Minor problems with tempo.	Many problems with tempo.	Significant problems with tempo.

DUET ELEMENT 8

Thrust followed by a rapid *360° Spin.* [DD 2.2]

Handbook Description	Basic Position	Basic Move	Desired Actions
a) *Thrust*		***Thrust* (BM9)** 1. From a Submerged **Back Pike Position (BP11),** with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position (BP6)**. 2. Maximum height is desirable.	1. Once established, the degree of angle should not change prior to initiation of the unrolling action. 2. The unrolling action starts with the toes just under the surface. 3. The body unrolls under the legs to assume a **Vertical Position (BP6)** along the same perpendicular line established by the legs in the **Back Pike Position (BP11)**. 4. Obvious increase in speed of action must be evident. 5. Maximum height and **Vertical Position (BP6)** achieved simultaneously.
	Back Pike Position (BP11) 1. Body bent at hips to form an acute angle of 45° or less. 2. Legs extended and together. 3. Trunk extended, with the back straight and head in line.		1. Legs as close to the chest as possible, without sacrificing the straight line alignment of the extended spine and head. 2. Full extension of the legs, ankles and feet. 3. Back flat, with ear, shoulder joint, middle side of torso, and hip joint aligned. 4. Once position is established, the degree of angle remains constant.
	Vertical Position (BP6) 1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line.		1. Full extension of the body. 2. Judgement made by checking visual points of the vertical alignment: ears, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) followed by a rapid *360° Spin.*		***360° Spin*** **(BM13e)** 1. A *Spin* is a rotation in a **Vertical Position (BP6)**. 2. The body remains on its longitudinal axis throughout the rotation. 3. Unless otherwise stated, *Spins* are executed in a uniform motion. 4. A *descending Spin* must start at the height of the vertical and be completed as the heel(s) reach(es) the surface. 5. Unless otherwise specified, a *descending Spin* is finished with a *Vertical Descent* **(BM10)** which is executed at the same tempo as the *Spin*. 6. *360° Spin* is a *descending Spin* with a rotation of 360°.	1. See the desired actions of the **Vertical Position (BP6)** in a) above. 2. Height and locked position attained before the *Spin* begins. 3. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis (no traveling). 4. Uniform motion to be at the same tempo as the rest of the figure, unless otherwise stated. (RAPID) 5. Stability and vertical alignment before, during and at the completion of the designated rotation. 6. Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface. 7. Amount of rotation of *360° Spin* must be exact. 8. When a *Spin* is more or less than the amount specified, the judge shall take it into consideration when awarding a score. A penalty shall be applied only when the error results in a different *Spin* as defined in the FINA Handbook.
		Vertical Descent **(BM10)** 1. Maintaining a **Vertical Position (BP6)**, the body descends along its longitudinal axis until the toes are submerged.	1. See the desired actions of the **Vertical Position (BP6)** as in a) above. 2. Unless otherwise stated, the tempo of descent is uniform and at the same tempo as the rest of the figure.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/ Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Dynamic Height	Lower ribs or higher.	Waist.	Pelvis points.	Crotch level.	Upper thigh.
Body Position	Almost always accurate; clear and precise.	Mostly accurate. No major errors.	May lack some accuracy. Generally clear.	Some major errors.	Significant errors.
Performance	Very minor signs of effort. Stable and well extended.	No major errors. Ability to achieve excellence part of the time. Some instability.	Many minor errors. Performance deteriorates.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.

6. TEAM REQUIRED ELEMENTS – ANALYSIS

1. The execution score of each required element is average of all members of the team.
2. In required elements you have to consider also the execution of the pattern in which the team is performing the required element: The precision of the pattern, the distance between the swimmers in the pattern.

TEAM ELEMENT 2

A Thrust is executed to **Vertical Position***,* maintaining maximum height *a Twirl* is executed as one leg is lowered to **a Bent Knee Vertical Position***. A vertical descent* is executed as the bent knee is extended to meet the vertical leg at the ankles submerge with the same tempo *as the Thrust.*

Handbook Description	Basic Position	Basic Move	Desired Actions
a) a Thrust to **Vertical Position**	1. Body bent at hips to form an acute angle of 45° or less. 2. Legs extended and together. 3. Trunk extended, with the back straight and head in line. **(BP11)** 4. Body extended perpendicular to the surface, legs together, head downward. 5. Head (ears specifically), hips and ankles in line. (**BP6**)	1. From a **Back Pike Position (BP11)** with legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position (BP6)**. 2. Maximum height is desirable. **(BM8)**	1. Once established, the degree of angle should not change prior to initiation of the unrolling action. 2. The unrolling action starts with the toes just under the surface. 3. The body unrolls under the legs to assume **Vertical Position** along the same perpendicular line established by the legs in the **Back Pike Position**. 4. Obvious increase in speed of action must be evident. 5. Maximum height and **Vertical Position** achieved simultaneously.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) maintaining maximum height *a Twirl* is executed as one leg is lowered to **a Bent Knee Vertical Position.**	1. Body extended perpendicular to the surface, legs together, head downward. 2. Head (ears specifically), hips and ankles in line. **(BP6)** 3. As 1 & 2 plus one leg bent so that the toe of the bent leg is in contact with the inside of the extended leg at the knee or the thigh **(BP14c)**	1. A *Twirl* is a rapid twist of 180°. 2. The body remains on its longitudinal axis throughout the rotation. **(BM10c)**	1. Water line remains constant during rotation. Stability and alignment of position evident before, during and upon completion of the *Twirl*. Amount of height is judged by the relationship of the hip joint to the surface of the water, with credit given to maximum height. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. On-the-spot rotation around this axis. 3. Rotation must be precisely 180°. 4. Definite increase in speed. Stability of body alignment and water line during and after completion of the *Twirl.* 5.The timing of the two movements should match: the start of the *Twirl* and the movement to bent the knee should start at the same time and be finished at the same time – when half of *the Twirl* is executed the toe of the bending leg has been lowered to the half of the distance.

Handbook Description	Basic Position	Basic Move	Desired Actions
c) *A vertical descent* is executed as the bent knee is extended to meet the vertical leg at the ankles submerge with the same tempo as *the Thrust.*	1. Same as above **(BP14c)** and **(BP6).**	1. The body remains on its longitudinal axis throughout the descent.	1. Height and locked position attained before the descent begins. 2. The longitudinal axis runs through the center of the body and is perpendicular to the surface of the water. 3. Stability and vertical alignment before, during and at completion of the descent. 4. Simultaneous descent and extending of the bent knee as the ankles reach the surface.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Design, Position, Axis rotation	Very precise, controlled, solid axis maintained (no traveling).	Minor deviation in design.	Minor deviation in design.	Deviations are few and minor.	Some major errors or many minor problems.
Dynamic Height	Lower ribs or higher.	Waist.	Pelvis point.	Crotch level.	Upper thigh.
Control, Uniform motion, Extension	Excellent fluidity; near perfection and excellent extension.	Excellent fluidity and good extension.	Good fluidity and good extension.	Control with uniform motion; incomplete extension.	Irregular motion and minimal extension.

TEAM ELEMENT 3

435 – Nova is executed to the completion of a **Bent Knee Surface Arch position;** the legs are simultaneously lifted to a **Vertical position** as the bent knee is extended. *A continuous Spin of 1080** (3 rotations) is executed until the heels reach the surface, without submergence, followed by a rapid *Spin Up of 180*. A Vertical Descent* is executed at the same tempo as *Spin Up 180**. (DD 2.9)

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a Back layout position a Dolphin is initiated until the hips are about to submerge.	**Back Layout position (BP1)**	1. From a **Back Layout Position (BP11)** with legs remaining on the surface, the head and upper body leave the surface sequentially to start to follow the circumference of a circle which has a diameter of approximately 2,5 meters, depending on the height of the swimmer. *(BM 14*)	1. In **Back Layout Position (BP1)** body is fully extended with face, chest, thighs and feet at the surface. Head (ears specifically), hips and ankles in line. 2.The movement starts to move head first 3.From the point where the head is in the beginning of the action, the upper body start to follow the circumference of the circle sequentially until the hips reach the point where the head was in the starting position 4. Legs and feet stay on the surface throughout.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) The hips legs and feet continue to move along the surface as the back is arched more as one knee is bent to assume a Bent Knee Surface Arch Position	**Bent Knee Surface Arch Position (BP14e)** Body arched in Surface **Arch Position** (Lower back arched, with hips, shoulders and head on a vertical line.) One leg bent with the toe of the bent leg in contact with the inside of the extended leg. The thigh of the bent leg is perpendicular to the surface.	While arching more, the hips, legs and feet continue move forward on the surface.	1. While arching more the hips, legs and feet continue to move forward on the surface. 2.the arching action brings the head, shoulders and hips on the same vertical line 3. Timing – the arching of the back and the action to draw the toes of the other leg along the inner side of the extended leg should star at the same time and finish at the same time

Handbook Description	Basic Position	Basic Move	Desired Actions
c) The legs are simultaneously lifted to a **Vertical Position** as the bent knee is extended.	**Vertical Position (BP6)**		1. As little loss of height as possible during lifting 2. Timing of straightening the leg, straightening of the back and lifting the legs to vertical. Legs should reach **Vertical Position** at same time. 3. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
d) *A continuous Spin of 1080** (3 rotations) is executed until the heels each the surface, without submergence, e) followed by a rapid *Spin Up 180** .	**Vertical Position (BP6)**.	*Continuous Spin of 1080* (BM 13f)* Starts at the height of the vertical, Three rotations with uniform motion evenly dropping till heels reach the surface. No pause, *Spin Up 180* (BM13h)* Change in speed. This must be faster than the previous *continuous spin* Evenly rising during a rapid rotation of 180* with uniform motion to the height of the vertical. The body remains on its longitudinal axis throughout the rotations.	1. Judgment made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle. 2. Change in speed between the *continuous spin* and *spin up.* 3. Evenly dropping during the *continuous spin* and evenly rising during the *spin up.* 4. *Spin Up* faster than *continuous spin*

Handbook Description	Basic Position	Basic Move	Desired Actions
f) *A Vertical Descent* is executed at the same tempo as *Spin Up 180**.	**Vertical Position (BP6)**	*Vertical Descent (BM 10)*	1. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle. 2. Staying on same vertical line during the descent. 3. Speed same as in *Spin Up 180** .

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Stable Height	Upper mid thigh.	Well above knee cap.	Through knee cap.	Well below knee cap. (mid shin)
Body Position	Almost always accurate; clear and precise.	May lack some accuracy.	Many minor problems.	Identifiable but very inaccurate throughout.
Performance	Very minor signs of effort. Stable and well extended.	Unsure and strained in parts, with full extension not maintained throughout.	Minimal control; minimal extension; effort evident.	Struggling. Many major problems.

TEAM ELEMENT 4

Boost - a rapid head-first rise, with a maximum amount of the body above the surface of the water. Both arms must be lifted above the surface as the body reaches maximum height. A descent is executed until the swimmer is completely submerged.

Handbook Description	Basic Position	Basic Move	Desired Actions
a) *Boost* - a rapid head-first rise, with a maximum amount of the body above the surface of the water.			1. Beginning of the rise may be at or beneath the surface. 2. Speed in the rise. 3. Control in the maximum height.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) Both arms must be lifted at or above the shoulder line as the body reaches maximum height.			1. When maximum height is reached by the body, the two arms are also at or above the shoulder line. 2. Position of arms is optional. 3.Control and extension of the whole body

Handbook Description	Basic Position	Basic Move	Desired Actions
c) A descent is executed until the swimmer is completely submerged.			1. Manner of descent is optional. 2. Descent of the whole body and the whole two arms must arrive completely under the surface. 3. Control and extension of the body during the descent.

Scores						
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**	**4 to 4.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**	**Deficient**
Speed/Control	Fast; Control in maximum height.	Fast; Less control in maximum height.	Less speed, less control in maximum height.	Less speed, lack of control in maximum height.	Less speed, no control in maximum height.	Not enough speed, no control in maximum height.
Dynamic Height	At crotch (air between the legs).	Crotch to mid-pelvis.	Top of pelvis.	Waist.	Lower ribs.	Arm pit.
Descent	Complete submergence after the descent.	Complete submergence after the descent.	Less control in the descent.	Irregularity in the descent.	Irregularity and lack of control and extension in the descent.	Irregularity, lack of control and extension and travel in the descent.

TEAM ELEMENT 6

From a **Front Pike Position,** porpoise lift is executed to a **Vertical Position**. *A Full Twist* is executed then the legs are lowered symmetrically **to a Split Position**. *A walkout Front* is executed. (DD2.9)

Handbook Description	Basic Position	Basic Move	Desired Actions
a) From a **Front Pike Position** legs are lifted **to Vertical position**;	**Front Pike Position (BP10)** Body bent at hips to for a 90*angle. Legs extended and together. Trunk extended with back straight and head in line. **Vertical Position (BP6)** Body extended perpendicular to the surface, legs together, head downward. Head (ears specifically), hips and ankles in line.		1. Upper body stays at the vertical line during the lift. 2. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle. 3. Timing in lowering the legs to Split Position. Legs start lowering at the same time and reach the surface at the same time.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Control	Control during the lift, upper body stays on the vertical line.	Less control during the lift, upper body moves slightly towards the legs.	Less control during the lift, upper body moves significantly towards the legs.	Lack of control during the lift, upper body moves a lot towards the legs.	Not much control during the lift. upper body moves a lot towards the legs and/or back is arching.
Sustained height	Upper mid thigh.	Mid thigh.	Well above the knee cap.	Above knee cap.	Through knee cap.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) *A Full twist* is executed, then the legs are symmetrically lowered to **Split Position.**	**Vertical Position (BP6)** As above. **Split Position (BP16a)** Legs evenly split forward and back. The legs are parallel to the surface. Lower back arched, with hips, shoulders and head on a vertical line. 180* angle between the extended legs (Flat Split), with inside of each leg aligned on opposite sides of a horizontal line, regardless of the height of the hips.	*Full Twist (BM12b)* A rotation at sustained height. The body remains on its longitudinal axis throughout the rotation.	1. Water Level remains same throughout the rotation. 2. No traveling. 3. Amplitude, extension, posture, control of body.

Scores					
Criteria	**9 to 9.9**	**8 to 8.9**	**7 to 7.9**	**6 to 6.9**	**5 to 5.9**
	Excellent/Near Perfect	**Very Good**	**Good**	**Competent**	**Satisfactory**
Control	Control during the rotation and lowering the legs. Body stays at the vertical line.	Less control during the rotation and lowering the legs. Body stays at the vertical line.	Less control during the rotation, and lowering the legs, less control in timing and spacing when lowering the legs.	Lack of control during the rotation and lowering the legs. Feet don't reach the surface at the same time. Split is not flat.	Not much control during the rotation. Travelling during the rotation. Timing of lowering the legs is off. Split is not flat.
Sustained height	Upper mid thigh.	Mid thigh.	Well above the knee cap.	Above knee cap.	Through knee cap.

Handbook Description	Basic Position	Basic Move	Desired Actions
a) a *Walkout front* is executed	**Split Position (BP16a)** As above. **Surface Arch Position (BP13)** Lower back arched, with hips, shoulders and head on a vertical line. Legs together and at the surface. **Back Layout Position (BP1**) Body extended with face, chest, thighs and feet at the surface. Head (ears specifically), hips and ankles in line.	*Walkout Front(BM6b)* Starts in a **Split Position.** The hips remain stationary as one leg is lifted in an arc over the surface to meet the opposite leg. in a **Surface Arch Position** and with continuous movement the hips, chest and face surface sequentially at the same point with foot first movements to a **Back Layout Position** until the head occupies the position of the hips at the beginning of this action.	1. Hip height remains constant and as close to the surface as possible. 2. Arcing leg moves continuously at an even tempo. 3. Both legs maintain full extension. 4. Trunk maintains same position until the feet join. 5. No stopping in **Surface Arch Position,** but an accurate Surface Arch should be evident before the body begins to rise and straighten. 6. Full body extension maintained throughout.

TEAM ELEMENT 7

Rocket Split is executed to an **Airborne Split Position**, maintaining maximum height the legs are lifted to a **Vertical Position** as *Twirl* is executed with a rapid *Vertical Descent. (* DD 2.6.)

Handbook Description	Basic Position	Basic Move	Desired Actions
a) *Rocket Split* is executed to an **Airborne Split Position**	1. **Back Pike Position (BP11)** Body bent at hips to form an acute angle of 45* or less. Legs extended and together. Trunk extended with the back straight and head in line. 2. **Vertical Position (BP6)** Body extended, perpendicular to the surface, legs together, head downward. Head(ears specifically), hips and ankles in line. 3. **Airborne Split Position (BM16b**) Legs evenly split forward and back. The legs are parallel to the surface. Lower back arched, with hips, shoulders and head on a vertical line. 180* angle between the extended legs (Flat Split) with inside of each leg aligned on opposite sides of a horizontal line. Legs are above the surface.	*Rocket Split (BM11)* *Thrust (BM 9)* From a Submerged **Back Pike Position** with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is executed as the body unrolls to assume **a Vertical Position.** Maintaining maximum height the legs are split rapidly to assume **an Airborne Split Position.**	1. Once established in the **Back Pike Position (BP11)**, the degree of angle should not change prior to initiation of the unrolling action. 2. The body unrolls under the legs to assume **Vertical Position** along the same perpendicular line established by the legs in the **Back Pike Position.** 3. Maximum height and **Vertical Position** achieved simultaneously. 4. Speed of action. 5. Without loss of the height the legs are split to **Airborne Split position**. 6. Flat split. 7. Full extension throughout the movement. 8. Judgement made by checking visual points of the vertical alignment: ear, shoulder joint, hip joint, and ankle.

Handbook Description	Basic Position	Basic Move	Desired Actions
b) maintaining maximum height the legs are lifted to a **Vertical Position** as *Twirl* is executed with a rapid *Vertical Descent.*	1. **Vertical Position (BP6)** As above.	*Twirl (BM12c)* a rapid rotation of 180* at sustained height. *Vertical Descent (BM10)* Maintaining a **Vertical Position** the body descends along its longitudinal axis until toes are submerged.	1. Simultaneous lift of leg and *Twirl*. 2. Full extension maintained throughout. 3. No loss of height during the *Twirl.* 4. Speed kept throughout.

Scores				
Criteria	**9.5**	**7.5**	**5.5**	**3.5**
	Near Perfect	**Good**	**Satisfactory**	**Weak**
Dynamic Height	Lower ribs or higher.	Pelvis points.	Upper thigh.	Knee cap.
Body Position	Almost always accurate; clear and precise.	May lack some accuracy.	Many minor problems.	Identifiable but very inaccurate throughout.
Control, extension	Very minor signs of effort. Stable and well extended. In *Thrust*, leg-movement upward, vertical alignment where hips were in Submerged **Back pike Position**.	Unsure and strained in parts, with full extension not maintained throughout. In *Thrust*, leg movement making a little „hook“, but hips remaining at their original vertical line in **Vertical position**.	Minimal control; minimal extension; effort evident. In *thrust*, leg movement forward, hips move from their original vertical line.	Struggling. Many major problems. Hips move from their original vertical line. **Vertical Position** has a pike at the hips or arch in spine or is off from the Vertical axis. Difficulties with extension.

D. GLOSSARY OF TERMS FOR ROUTINES

Accent	A display of different stress, or emphasis, often in contrast to what has gone before. Stress is differentiated by its greater or lesser force.
Amplitude	Greatness of size, magnitude, fullness, copiousness, breadth or range
Asymmetry	Uneven balance or proportion in time, space or energy. Opposite to symmetry: an arrangement marked by regularity and balanced proportions.
Artistic Impression	An effect, image or feeling retained as a result of demonstration of skill and good taste of the swimmer(s).
Boost	A rapid, headfirst rise, with a maximum amount of the body above the surface of the water.
Choreography	The craft of composing and arranging movement into a comprehensive framework.
Complex	Something made up of or involving an intricate combination of elements.
Creativity	The act of being original or imaginative. Process of formulating a fresh and distinctly personal statement.
Difficulty	The quality of being hard to achieve.
Dynamics	The energy or effort of movement, expressed in varying quality, intensity, texture or gradations in tension.
Eggbeater Kick	With the body in a relatively vertical sitting position, the lower limbs move alternately, as the left foot moves clockwise, and the right foot moves counter clockwise. The technique of the eggbeater kick provides continues propulsive force for swimmers to maintain the high of the head and upper body above the water.
Energy	Vigour in the exertion of power; strength in action; forcefulness of expression. Varying levels of energy can be displayed through the quality and intensity of the movement and the stressed action or accent of certain notes.
Execution	Refers to the performance level of the skills demonstrated.

Extension	the amount, degree or range to which something can be stretched to its fullest length
Flexibility	the ability to bend or flex, pliable; range of motion
Float	Two or more swimmers attached to make a surface formation.
Fluidity	The ability to move with ease, able to flow, seamless.
Focus	The gathering of forces to increase the projection of intent - e.g. Swimmer's sight line. Adds meaning to movement.
Fuzzy	Lacking in clarity or definition.
Highlight	A portion or detail of a routine of major significance or special interest; a memorable moment.
Hybrid Figure	A figure of mixed origin or composition, and other than those described in the rules.
Intensity	Presence of a greater or lesser degree of energy.
Interpretation of Music	A concept of the music expressed by the performance of the swimmer(s). **Use of music**.
Jump	Same as **Stack**. But supported person becomes airborne at peak of lift.
Kinaesthetic Awareness	The ability of the individual to know the spatial relationship of the body parts.
Levels	High/Medium/Low - in relation to water surface. In other words, from high boosts or lifts, to underwater.
Lift	When one or more swimmers give support to lift another swimmer(s) above the surface of the water.

Manner of Presentation	The way in which the swimmer presents her routine for the consideration of the public and/or judges. Total command of one's performance, amplitude.
Patterns	Refers to formations made by the spatial relationship between members of a team.
Platform	The coordinated effort of team members to form a stable support on which one or more swimmers is lifted to pose or perform other actions. May be static or moving.
Pool Pattern	The pathway the swimmer(s) take(s) through the water.
Power	The amount of strength or force exerted, might, the rate at which work is done, (strength plus speed).
Projection	Communication of meaning or feeling to the audience.
Propulsion Technique	The process by which the body uses arms and/or legs to move through the water. A driving force.
Rhythm	A structure of movement patterns in time. The pulse or beat.
Risk Factor	Skills which expose the swimmer to a chance of a lesser performance.
Rocket	A *Thrust* to **Vertical Position** which does not require the legs to be perpendicular to the surface in the **Back Pike Position** prior to the *Thrust*.
Routine	A composition consisting of strokes, figures and parts thereof, choreographed to music.
Spatial Design	Interrelationship of swimmers to each other and to the space through which they are moving.
Stability	resistant to change, especially sudden change; consistent,
Stack	One person supported at or above the surface.
Strength	the state or quality of being strong, physical power

Stroke	Refers to swimming strokes. A single complete movement which includes a pull and a recovery of the arms(s) accompanied by an appropriate kick.
Style	A personal or characteristic manner of performing or choreographing.
Sustained height	The ability to maintain a constant level of height above the water.
Sustained Movement	A quality of movement that is smooth and unaccented, with no apparent start or stop, but gives a feeling of a continuity of energy flow.
Synchronisation	To swim or execute movements in unison, one with the other and the accompaniment.
Technical Merit	The level of excellence demonstrated by the swimmer's mastery of highly specialized skills.
Tempo	Pace or speed.
Throw	One or more swimmers being catapulted above the surface of the water by actions of other swimmers.
Transitions	Connecting movements which enable the swimmer(s) to change from one movement to another; stroke to figure; eggbeater to layout; etc.
Trite	Used so often that the novelty has worn off. Stale. Stereotyped. Common place.
Variety	Diversity; assortment. The condition of being varied or diverse.

SECTION IV

REFEREE GUIDELINES

A. THE REFEREE

To be able to perform effectively as a Referee, an individual must:

- have common sense, and be able to apply it.
- be able to analyse the conduct of the competition before, during and after the event.
- remember that every competition is a personal learning experience.
- always remember that he/she is only human and therefore never perfect.

In the FINA Handbook, **Rule SS 22** defines the duties and responsibilities of the Referee at a competition.

At Olympic Games, World Championships and other FINA events, some of the Referee's responsibilities are handled by the Commission per **GR 9.5 Commissions**.

To be able to conduct a successful competition, the Referee must have the following at her/his disposal:

- All rules pertaining to that competition: - FINA plus any Continental, Regional and/or National rule modifications specific to that competition.
- All the personnel necessary to organise and conduct the competition. In particular, the Referee is reliant upon a suitable number of trained deck officials - Judges; Assistant Referees; Technical Assistants for Technical Routines; Chief Recorder and score keepers; time keepers; clerks of course; music controllers; announcers; runners; video recorder, etc. The competition organising committee should designate a liaison to the Referee to deal with logistical organization problems affecting the conduct of the event.
- All the necessary equipment and materials - score cards; music equipment; appropriate seating for the judges; computer scoring whenever possible; scoring papers; tables; chairs, etc.

NB: Refer to the FINA Synchronised Swimming Operating Manual for detailed lists of personnel, material and equipment requirements; plus task checklists for before, during and after an event.

Prior to the start of the competition, the Referee must ensure that a procedure is in place to confirm the eligibility of each athlete entered in the event. Depending on the event, that could include some proof of identity, age, affiliation and/or nationality.

SS 22.1 The Referee shall have full control of the event. She/he shall instruct all officials.

To fulfil this task, the Referee must prepare carefully by:

- reviewing and knowing the rules thoroughly
- checking the facilities and all the equipment in advance
- introducing him/herself to the meet personnel and meeting with them to discuss the competition format and organization to ensure smooth operation of the event.
- preparing for and conducting the Team Managers and Judges meetings prior to the start of the competition.
- preparing for and conducting/supervising the draw[s] for order-of-swim.

  TSSC recommendation: When electronic draws are used, five [5] versions be made with one draw to be drawn manually from the five [5].

  For final routine events, see the current FINA Handbook.
- overseeing and supervising all officials in any matter relating to the conduct of the actual competition.

During the competition, the Referee must function from a position which enables quick and efficient communication with the assistant referee; judges; announcer; music centre manager; chief recorder; scoring and computer personnel; last call room; and television staff.

When the event is completed, the Referee ensures that the correct results are available as quickly as possible to enable the organisers to proceed with the award ceremonies in a timely manner. Final results must be signed by the Referee to certify that they are correct before they are released to the participants, public and media.

SS 22.2 She/he shall enforce all the rules and decisions of FINA and shall decide all questions relating to the actual conduct of the event and be responsible for the final settlement of any matters not otherwise covered by the rules.

To ensure that the competition runs smoothly - particularly when it is being broadcast live on television in a precisely scheduled time period - the Referee must be able to:

- work efficiently and calmly under pressure.
- analyse problem situations in a logical manner.
- make the correct decision quickly.
- have a common language with the people she/he works with.

SS 22.3 The Referee shall ensure that all necessary officials are in their respective positions to conduct the event. She/he may appoint substitutes for any persons who are absent, incapable of acting or found to be inefficient. She/he may appoint additional officials if considered necessary.

To fulfil this task, the Referee shall schedule a 'check-in' meeting one to one and a half hours prior to the start of each event. Reserve officials should be available to replace any official who is absent, ill or for some reason unable to function.

The meet organisers should provide an officials' liaison to work with the Referee to ensure that all officials have the necessary equipment [flash cards. clipboards, scoring papers, etc.] and refreshments as needed.

SS 22.4 In emergencies, the Referee is authorised to assign a substitute judge.

One or more reserve judges should be named for each event. They must be present during the event and seated where they can observe, shadow judge and be easily reached by the Referee should an emergency arise which necessitates their replacing a member of the panel.

SS 22.5 She/he shall determine that the competitors are ready and signal for the start of the accompaniment. She/he shall instruct the scorers to penalise the competitors in the event of an infraction of the rules. She/he shall approve results before announcements.

Before the results are announced as being official, the Referee or Chief Recorder must ensure that all pertinent information has been included - eg. penalties - and accurately processed, with all the scores accurately recorded, calculated and in agreement with the back-up system. When everything has been checked, the Referee signs the result sheets to certify that they are correct.

SS 22.6 The Referee may intervene in the event at any stage to ensure that the FINA regulations are observed, and shall adjudicate all protests related to the event in progress.

- If swimwear does not conform to **GR 5** and/or **SS 13.6**, the Referee has the authority to not allow swimmers to compete until they change into something appropriate.
- If swimwear does not conform to **GR 5** and/or **SS 13.6**, the Referee has the authority to not allow swimmers to compete until they change into something appropriate.
- When a technical problem occurs during a routine performance, the Referee may allow a reswim.

Guidelines for timing of a reswim:

- if less than half of the routine has been performed, schedule reswim after the next 2 routines. [approximately 15 minutes recovery time]
- if more than half of the routine has been performed, schedule reswim after the next 3 routines. [approximately 20 minutes recovery time]
- if the original start number was just prior to a break, the routine could reswim as the first competitor after the break.
- if a problem occurs during the final routine of an event, the Referee should determine a suitable recovery time - ie. 10-15 minutes, or sooner if the athlete(s) is/are ready - and ask the officials to remain in their places until the reswim has occurred.

When a technical problem such as power failure; no underwater music; weather conditions, etc., necessitates a reswim, the Referee should inform the Coach personally, and the officials and audience through the announcer.

- The Referee must be fully knowledgeable about the procedures for handling of a protest. For FINA events, the protocol is according to **GR 9.2** Protests.

SS 22.7 The Referee shall disqualify any swimmer for any violation of the rules that she/he personally observes or which is reported to her/him by other officials.

SECTION V

MEDICAL ISSUES IN SYNCHRONISED SWIMMING

A. ILNESSES IN SYNCHRONISED SWIMMING

1. ASTHMA

The prevalence of asthma in Synchronised Swimming at the Olympic Games in Beijing in 2008 was the second highest of all sports at 21.2%.The overall incidence of asthma for all sports was 7.2%.

Postulation on the cause of this high incidence of asthma in Synchronised Swimming as an endurance discipline suggests that this may be the result of chronic exposure of the lungs to environmental allergens while breathing rapidly and deeply during endurance training. The exposure of the lungs to irritant chloramines, by-products of chlorine, is considered to be a major factor. Partial reversibility of these findings appears to occur upon retirement from elite sport. More research is required to determine a strategy to minimize or reduce the adverse effects of training on airways.

Treatment of asthma in the elite synchronised swimmer is restricted by the conditions of the World Anti-Doping Association and attention to these requirements is essential to avoid an anti-doping rule violation. Medical attention should be sought in the synchronised swimmer who companies of prolonged cough, wheezing, difficulty breathing or chest tightness.

2. FEMALE ATHLETE TRIAD

The female athlete triad (Triad) is a clinical syndrome which describes the inter-relationship between energy availability, menstrual function and bone mineral density. Energy availability in the Triad is defined as energy intake minus energy expenditure. An athlete runs into difficulty when their energy output exceeds their energy intake. This can occur as a result of an eating disorder or by disordered eating. In some cases an energy deficit can occur in the absence of these scenarios simply by inadequate intake of nutrition to meet the energy output. One physiological result of the energy deficit is menstrual dysfunction ranging in a spectrum from an abnormal menstrual cycle to a complete lack of menses (amenorrhea).

Another consequence to the energy deficit is altered bone health. This can range from optimal bone health to osteoporosis. In athletes, the first presentation of unhealthy bone density is often a stress fracture. This is rare in Synchronised Swimming due to the relatively low impact of training. The prevalence of the Triad in Synchronised Swimming is unknown however it is often seen in clinical practice.

A synchronised swimmer who does not have regular menstrual cycles should seek medical attention to rule out the presence of the Female Athlete Triad.

3. EATING DISORDERS

The sports medicine scientific literature clearly acknowledges “anorexia athletica” as a significant clinical problem.

Due to the esthetic judged nature of Synchronised Swimming and diving, there is a pressure for these athletes to be thin. In some cases, this may lead to a clinical eating disorder or disordered eating. An eating disorder is a psychiatric diagnosis characterized by a disturbance in eating behaviours. There are two types of eating disorders: anorexia nervosa and bulimia nervosa. Anorexia nervosa is characterized by marked restriction of eating with a 15% weight loss from expected norm. Despite this, the athlete feels overweight and has a fear of gaining weight. Bulimia nervosa is characterized by repetitive cycles of binging –eating followed by purging. They are usually of normal weight.

Disordered eating occurs when there are abnormal eating behaviours which are not severe enough to meet the diagnostic criteria for an eating disorder. The prevalence of eating disorders in esthetic sports that emphasize leanness in the literature ranges between 25- 31% in comparison to 5% in the general population. Anorexia nervosa is more common in Synchronised Swimming than bulimia. The consequences of eating disorders are serious affecting both the physical and psychological health of the athlete. Psychological sequelae include depression, anxiety and low self-esteem and suicide. Physical sequelae of eating disorders affect all body systems. There is a six-fold mortality rate with a high suicide rate. Prognosis for long term recovery from eating disorders is guarded. This health issue is a serious problem for athletes in esthetic sports – and in particular for synchronised sports.

Management of Eating Disorders

In a non-threatening environment the patient is more likely to accept support and minimize the risk of progressive listlessness, apathy, menstrual dysfunction and severe disruption to vital processes. Other initiatives which may assist in the early stages of managing the anorexic athlete include sensitive discussion by the physician with family, close team mates, or the coach. The patient’s unequivocal approval for this intervention is mandatory. At this stage, nutritional advice and the establishment of firm weight goals in consultation with the physician may be helpful.

4. HYPOXIA

Prolonged breath holding carries with it the risk of Hypoxia [reduced blood oxygen]. When associated with physical activity in an underwater setting, the potential for loss of consciousness [‘black out’] is of significant concern. Available medical evidence strongly suggests that the combination of prolonged breath holding - more than 45 seconds - and vigorous physical

activity can have serious medical consequences. 'Black out' under water is clearly a serious and potentially lethal situation.

Hyperventilation [over breathing] prior to a competition is also known to increase the risk of a black out and should be actively discouraged. The practice of hyperventilation lowers the levels of carbon dioxide in the blood stream and abolishes an important trigger for normal breathing.

Hypoxia has been demonstrated in Synchronised Swimming resulting in confusion following a free team routine in a study completed in Great Britain in the early 1990s. At this time, the emphasis in Synchronised Swimming routines was on prolonged breath-holding. The style in Synchronised Swimming has changed since then to a more acrobatic and artistic style with emphasis on execution and less emphasis on breath-holding. Although hypoxia is now rare, coaches should be aware of this phenomenon and prevent prolonged breath holding practices.

B. INJURES IN SYNCHRONISED SWIMMING

1. SHOULDER

In Synchronised Swimming, the commonest cause of injury to the musculoskeletal system is overuse. The synchronised swimmer trains for cardiovascular fitness by swimming freestyle. In addition to this training, she also does repetitive synchro-specific skills such as arm actions in routines, support scull with lifts and boosts and dry land drill –an on-land rehearsal of the routine. These activities occur repetitively for several hours on a daily basis. All of these repetitive actions over time may result in micro-trauma to the rotator cuff muscles of the shoulder. Another mechanism may be impingement of inflamed soft tissue structures of the shoulder such as the subacromial bursa.

Flexibility and balanced muscle strength are essential requisites for all successful synchronised swimmers.

The synchronised swimmer with a shoulder injury will complain of a painful arc of shoulder movement which progresses to the point where the swimmer is unable to continue training.

The Management of Shoulder Pain in Synchronised Swimmers

The successful management of shoulder pain in any swimmer demands the cooperation of athletes, coach, physician and other necessary healthcare expertise. Management begins with an accurate clinical diagnosis, which is the prime responsibility of the sports physician. To distinguish between the various causes of shoulder pain a full clinical examination followed by X-rays or specialized scans may be necessary.

Early conservative management includes rest from all provocative activities. A swimmer could still attend training and do kicking drills or dry land workouts. The use of ice massage and other physiotherapy modalities should be included, in addition to the judicious use of anti-inflammatory drugs to settle any acute symptoms. The correction of technical problems may require video analysis and biomechanical expertise, and there will be obvious input from the coach. Communication between physician, athlete and coach is essential.

The Synchronised swimmer is able to maintain aerobic fitness during rehabilitation by incorporating cross training activities into the program. For example, while resting an injured shoulder, cycling, jogging and kicking drills are appropriate alternatives.

Return to sport demands the recovery of full pain free movement. If poor technique has been ignored, then it is only a matter of time before symptoms return and the vicious cycle of pain and limited movement returns.

2. LUMBAR SPINE

Resulting from the fast mechanical movements seen in Synchro team and duet events, the lumbar spine of the Synchronised swimmer is particularly vulnerable to injury. Injury to the lumbar spine is thought to be caused from the repetitive and rapid arching. A unique move in Synchronised Swimming that adds further stress on the lumbar spine is the 'rocket-boost' and the 'knight' position. Training errors can be blamed for the development of lumbar dysfunction and should be taken into consideration when evaluating the athlete for the cause of the injury and when developing the treatment plan. These errors include excessive repetitions, explosive speeds, arching with a rotational component, excessive over-arching, inadequate neuromuscular training, poor core stability & posture, inadequate flexibility and premature progression to higher risk skills.

There are many injuries that occur to the lumbar spine. These range from muscle strains to more serious neurological injuries requiring urgent medical intervention. The athlete who complains of lumbar pain should seek medical attention. A thorough physical examination and appropriate imaging studies as indicated are necessary to ensure the accurate diagnosis and subsequent treatment plan.

3. KNEE

Like the breast-stroker and the water polo player, the Synchronised swimmer is vulnerable to chronic overuse injury of the knee. This can be attributed to the egg beater kick. Progressively difficult egg beater drills are used as foundation training for the development of strength and skill.

The Synchronised swimmer may present with either medial or anterior joint pain. The medial joint pain can be explained by the medial joint stress caused by the positioning of the knee during the egg beater kick. Anterior joint pain is attributed to abnormal tracking of the knee cap in the notch of the femur. The athlete will complain of stiffness after rest and anterior knee pain while kneeling and using the stairs. It may be aggravated by the eggbeater kick at later stages.

Knee pain in the Synchronised swimmer most often can be managed with non-surgical interventions. Alteration to the duration and intensity of the egg beater kick during training is necessary. Cross training on the bicycle for fitness is preferred to jogging during the rehabilitative process which may aggravate knee injuries.

4. CONCUSSION

Emphasis in recent years in Synchronised Swimming has been on the development of high-risk acrobatic moves especially in the team routine.

The brain is a complex organ that does not respond well to trauma. It often does not heal as predictably as boney or muscular injuries. This unpredictability may lead to difficulty in detection, treatment and recovery from concussion.

Concussion is defined as a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces. Several common features that incorporate clinical, pathological and biomechanical injury constructs that may be utilized in defining the nature of a concussive head injury include:

1. Concussion may be caused either by a direct blow to the head, face, neck or elsewhere on the body with an ‘‘impulsive’’ force transmitted to the head.
2. Concussion typically results in the rapid onset of short- lived impairment of neurologic function that resolves spontaneously.
3. Concussion results in a graded set of clinical syndromes that may or may not involve loss of consciousness. Resolution of the clinical and cognitive symptoms typically follows a sequential course. however it is important to note that in a A small percentage of cases post-concussive symptoms may be prolonged.
4. Concussion does not result in an abnormality on standard structural neuroimaging studies.

The diagnosis of concussion should be considered by coaches in the Synchronised swimmer who has had a blow to the head if she portrays any of the following scenarios:

(a) Symptoms - somatic (e.g. headache), cognitive (e.g. feeling like in a fog) and/or emotional symptoms
(b) Physical signs (e.g. loss of consciousness, amnesia)
(c) Behavioural changes (e.g. swimming the wrong way)
(d) Cognitive impairment (e.g. slowed reaction times)
(e) Sleep disturbance (e.g. drowsiness)

The synchronised swimmer who is suspected to have a concussion should seek immediate medical attention. Return to training should occur under medical supervision and only occur once the athlete is completely symptom free and has undergone a graduated program of increasing physical activity with no recurrence of symptoms.

SECTION VI

GUIDELINES FOR APPROPRIATE CONDUCT AT COMPETITIONS

A. GENERAL CONDUCT

Coaches and other team personnel should:

- Exemplify conduct they wish their athletes to adopt in dress and behaviour.
- Accept responsibility for their athletes' conduct.
- Demonstrate mutual respect among themselves and personnel of other entries.
- Cooperate fully with meet organisers and officials during practices and events.

B. CONDUCT DURING PRACTICES

Coaches should follow guidelines for practice procedures as provided by meet management, and ensure that their athletes clear the pool as soon as their practice time is over.

1. With Music

   - Coaches have the right to deny other teams access to the pool during their allotted music spacing time.
   - If a coach wishes to make use of the pool during another team's designated time, she/he must ask permission of that team's coach, and abide by the decision.
   - When a team uses the pool during another team's music time, it should only be for figure and/or routine elements which do not require audible marking of time – i.e. 'banging' - or infringe on the designated team's use of the pool space.

2. Without Music

   - During open practices which are scheduled for a specific event, coaches should have only the event specified in the pool. For example, only Solos swim during Solo time.
   - 'Banging' is not allowed at any time.
   - Request permission of meet management to use unscheduled empty pool space between events.

3. For Figures Competitions

   - When practice time is divided due to a large entry, decisions of management are to be respected. Athletes practice only in that portion of the time and pool to which they are assigned.

C. CONDUCT DURING THE COMPETITION

- All team personnel should keep clear of music centres, scoring tables and judge panels and stay
- Applause for a performance should be in an appropriate manner. Screams and screeches as expressions of enthusiasm and support for friends or team-mates can be annoying to spectators, distracting to judges and may have a negative impact on the atmosphere the performance is attempting to establish.

SECTION VII

RESOURCE GUIDE

The intent of this Resource Guide is to provide information concerning the availability of Synchronised Swimming specific training materials and equipment. Although not comprehensive, it does include source information for suppliers who have a track record of being reliable. Inclusion on this list does not infer FINA endorsement.

A. FINA PRODUCTS & PUBLICATIONS

1. Books & Manuals

FINA HANDBOOK
The official rule book for all aquatics. Revised regularly.
English only
CHF 19.00

FINA SYNCHRONISED SWIMMING MANUAL FOR JUDGES, COACHES & REFEREES
2009-2013 edition
English only
CHF 19.00

FINA SYNCHRONISED SWIMMING OPERATING MANUAL
Guide to synchronised swimming competition organisation
Published in 2010
English only
CHF 19.00

2. DVD

• Figure Groups and Technical Routine required elements
CHF 25.00

• 2009 World Championships and other FINA Synchronised Swimming Competitions
tbc

NB: FINA videos may not be sold; used for any commercial purpose or by any network or other entity for production.

3. Others

FINA AQUATICS WORLD:
Yearly subscription
tbc

FINA Centenary Book, “Aquatics 1908-2008 – 100 Years of Excellence in Sport”
English/French
CHF 75.00 + postage fees

AWARD RULING AND PRIZES
English only
No charge.

To purchase FINA publications and/or videos please contact:

FINA Permanent Office
Avenue l'Avant-Poste 4
1005 Lausanne, Switzerland

Email: publications@fina.org
Phone: +41 21 310 4710
Fax: +41 21 312 6610

For more complete information on FINA products and/or publications, please reference the FINA website: www.fina.org/publications/index.php

B. SYNCHRO SPECIFIC EQUIPMENT

1. Sound systems and underwater speakers

• Lubell Labs – portable, semi-portable and professional rack sound systems; underwater

and all-weather air speakers; wireless headset microphone systems; digital and cassette recording equipment.

Supplier: Lubell Labs, 21 N. Stanwood Road, Columbus, Ohio, USA 43209.

Email: liquidsound@lubell.com

Website: www.lubell.com

• Ocean Ears – complete sound systems; portable sound systems; underwater speakers approved for use in Europe.

Supplier: Ocean Ears; 1638 Cottonwood Drive, North Canton, Ohio, USA 44720.

Email: Oceanears@aol.com

Website: www.oceanears.com

• Coomber – ideal for a variety of water-based activities including Synchronised Swimming.

Supplier: Coomber Electronic Equipment Limited, Brindley Road, Warndon, Worcester, WR4 9FB. Registered No. England 722690

Email: sales@coomber.co.uk

Website: www.coomber.co.uk

• Speedo – Aquabeat Underwater 1GB MP3 Player

Supplier: Speedo

Website: www.speedo.com

2. Nose clips

• Laxto brand – available in small and average

Contact: Laxto Brand, Roydel Sportswear Co Suite A, West Melville Heywood Road, Bideford, Devon EX39 3QB, England

Email: west.melville@tesco.net

Website: www.laxtonoseclips.zoomshare.com

• SwimOutlet – Nose clips from Laxto, Speedo, Arena, etc.

Contact: SwimOutlet.com, 39630 Eureka Drive Newark, CA 94560

Website: www.swimoutlet.com

3. Exercise bands

• approx. 6" wide with attachment rope. Colour coded in order of increasing strength: yellow, red, green, blue, black, silver, gold.

Supplier: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

4. Fitness Ball

• latex inflatable ball. About 65 cm. diameter. Appropriate for all ages and skill levels. Used for developing strength, flexibility, balance, coordination; stability and alignment.

Supplier: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

5. Flash cards

• Black and white, spiral bound.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Black and white, polyvinyl, spiral bound.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

6. Computer scoring/Judge Evaluation Software

• Synchro results and evaluation – FINA approved. English. To produce results per FINA rules; start lists; electronic draws; judge assignments, etc. Adaptable for any kind of meet and/or scoring formulas. Also produces judge evaluation data. Requires 128 MB memory. MS Windows 98, 2000 or XP; MS Excel 97, 2000 or XP. Macro virus protection. Contact: Sisto Salera, Scheuermattweg 4, CH 3000 Bern 23, Switzerland.

Phone: +41 31 379 1212

Fax: +41 31 379 1211

Email: salera_kuhn@swissonline.ch

• Scoring Program Disk - as used at 2001 FINA Junior World Championships. English only. IBM, PC compatible. Runs in DOS or Windows. Adaptable for any type of meet and/or different scoring formulas.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Synchro results – FINA approved. Russian/English. As used at the 2004/2008 FINA World Junior Synchronised Swimming Championships. To produce results per FINA rules; diplomas, start lists, electronic draws, etc. Also produces judge evaluation data.

Contact: Russian Synchronised Swimming Federation

Email: tg25@bk.ru

• Synchro results – FINA approved. English. To produce results and judge evaluation according to FINA rules 2009-2013.

Contact: Japan Swimming Federation

Email: jpn-swimming@japan-sports.or.jp

7. Miscellaneous

• Fabrics and swimwear – specialty fabrics; custom competition and training suits. Contact:

BG Actionwear, P.O. Box 1448, Sumner, WA, USA 98390

Phone: 1-800 294-3674

Fax: 1-253 862-4498

C. COACH/JUDGE EDUCATIONAL MATERIALS

1. Coaching

1.1. Printed materials

• Synchro as Simple as 1-2-3 – 2001. Simple approach to understanding why things work the way they do in the water plus an organized approach to teaching, learning, and analyzing movements. Written by Duke Zielinski. 102 pages, English only.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Development Drills: The C.A.L.M. Method of Developing Skills – 2001. More than 150 water drills for novice to elite to develop awareness, control, balance and leverage in the water. Written by Duke Zielinski. 28 pages; English only.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Swimming: Stroke Mechanics and Fundamentals – 1999. Stroke/kick mechanics of freestyle, backstroke, breaststroke, butterfly and side stroke. Proper techniques; stroke drills; corrections for common mistakes. Author: Duke Zielinski. 120 pages; illustrated; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Coaching Synchronised Swimming Effectively – 2002. How to teach skills to compete, from most basic to more complex. Editor: M. Erickson. 126 pages, English only. Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Figure Fundamentals: Volumes I, II & III – 2001. Volumes I [77 pages] & II [78 pages]: beginner – intermediate. Volume III [125 pages]: intermediate – advanced. Author: Duke Zielinski. English only; illustrated.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Coaching Synchronised Swimming Figure Transitions – updated 2002. Technical drills; coaching hints; major faults and suggested corrections. Author: Jennifer Gray. English only.

Contact: J. Gray, 48 New Road, Marlow Bottom, Buckinghamshire, Great Britain SL7 3NW

Phone: 44 1628 473241

Email: j.a.gray@lineone.net / jgray@brookes.ac.uk

• Figure Picture Play Books – Detailed pictures of all body positions; transitions; sculls, timing and alignment with the marker. Author: Duke Zielinski. English only

• USA Novice Figures – 2000. Single Ballet Leg; Blossom; Somersaults Front Pike and Back Tuck. 53 pages

• USA Intermediate Figures – 2000. Single Ballet Leg; Walkover Front; Kip; Somersub; Barracuda and Tower. 77 pages

• USA Age Group Figures – 2000. Ariana; Barracuda Somersault Back Pike; Eiffel Tower; Kip Half Twist; Flamingo Bent Knee; Subalina. 87 pages

• 2002-2005 FINA Junior Figures – 2001. 140 pages

• 2002-2005 FINA 12 & under Age Group Figures – 2001. 105 pages

• 2002-2005 FINA 13-15 Age Group Figures – 2001. 115 pages

• 2002-2005 FINA 16-18 Age Group Figures – 2001. 115 pages

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Illustrated Guides to Correcting Figures - 2001. Detailed pictures and explanations of common mistakes; their causes; suggested corrections for each position and transition. Author: Duke Zielinski. English only

• 2002-2005 FINA Junior Compulsory Figures – Kip Twist Spin; Walkover Back Closing 360□. 120 pages.

• USA Age Group Compulsory & Group 1 – Barracuda Back Pike Somersault; Ariana; Eiffel Tower and Kip Half Twist. 176 pages

• USA Age Group Figures Group 2 – Flamingo Bent Knee; Subalina. 125 pages

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Routine Fundamentals: Volumes I, II & III – 2001. The common denominators which make up nearly every routine. Volumes I [89 pages] & Volume II [59 pages]: beginner – intermediate. Volume III [82 pages]: intermediate – advanced. Written by Duke Zielinski. English only; illustrated.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Senior Team Technical Elements Play Books - 2001. Full colour pictures of required Technical Elements – body positions; transitions; sculls; suggested timing; techniques; transitions into the elements; and training drills for each. Author: Duke Zielinski. 87 pages; English only; advanced level.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• The Art of Choreography: a Complete Guide for Swimmers and Coaches – 1997. Complete guide for creating innovative choreography as well as technically sound routines. Authors:

Duke Zielinski; Karen/Sarah Josephson. 165 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Pattern Play Book – 1997. Complete reference book for team routine patterns; cadence actions and pattern transitions. Authors: Duke Zielinski; Karen/Sarah Josephson. 143 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

1.2. Videos

• Beginner Clinic –1992. NTSC. Basic skills, support scull, walkout-split scull, front pike pull down, etc.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Beginner Clinic – Routines – 1997. NTSC. Land drill techniques; basic routines. By M. Erickson; C. Davis.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Transitional Movements – 1992. NTSC. Transitions for soloists – surface and judges' view. Novice through advanced.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Basic Propulsion – 1994. NTSC. Techniques for routine transitions. By M. Erickson; C. Davis.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

2. Training

2.1. Printed materials

• Sport Training Manual for Synchronised Swimming – 1994. Training information including strength, control, flexibility, mental skills and nutrition. Written by licensed practicing physicians, physical trainers and educators. Approx. 200 pages, English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• The C.A.L.M. Method of Stretching and Strengthening – 2001. Teaches how to be centered and aware of your body while lengthening and strengthening your muscles. Suitable for all levels. Author: Duke Zielinski. 100 pages; English only.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Super Six Strengthening and Stretching Guide – 1999. Super Six muscles: core torso and upper leg muscles used to stabilize body and perform transitions in synchro. Land and fitness ball exercises plus suggested routines. Author: Duke Zielinski. 125 pages; illustrated; English only.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Synchro Stretch – 1999. Illustrated guide for land and water stretches. Directions for each stretch plus specific routines for warm-up, overall flexibility, splits, foot and knee extension.

Author: Duke Zielinski. 203 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Stretch Yourself into Shape with the Z Fitness Ball – 1998. Stretching exercises for the entire body using the fitness ball. Author: Duke Zielinski. 40 pages; illustrated; English only.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Strength Training Manual for Synchronised Swimming – 1996. General and synchro specific. Exercise band and land exercises for upper and lower body and core. Programs for different levels, plus how/when different muscles are used in synchro. Author: Duke Zielinski. 65 pages; English only; illustrated; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Synchronised Swimming Workouts – 1996. Guidelines on how and why to train; aerobic, anaerobic, general and synchro specific workouts; workouts novice to advanced; synchro specific stroking and figure drills and warm-ups. Author: Duke Zielinski. 100 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• Mental Strategies – 2001. Complete strategies with visual, auditory and kinesthetic suggestions for reaching peak performance. Author: Duke Zielinski. English only.

• For USA Novice Figures – 24 pages

• For USA Intermediate Figures – 31 pages

• For USA Age Group Figures – 35 pages

• For 2002-2005 FINA Junior Figures – 54 pages

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

2.2 Videos

• Strength and Conditioning for Synchro – 1997. NTSC. 47 minutes of exercises to develop optimal strength and prevent injury by '96 Olympic Team Trainer Dr. D. Chu. Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

3. Certification Program Models

3.1 Coaching

• Canadian National Coaching Certification Program [NCCP] – 3 part education program for all sports to cover theory, technical and practical components. Candidate and course conductor manuals available for 3 levels of synchro technical component: Level 1 – recreation & Star Program; Level 2 – introduction to competition; Level 3 – completes training for developing athletes. French/English. Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

3.2 Judging

• USSS Judging Manual. Guide for achieving certification. Revised and expanded 2000.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

• Judges Training and Accreditation Canada Synchro [J-TACS] – Candidate and Course Conductor Manual for basic Level 1 [beginner] and Level 2 [provincial level] training.

Based on Canadian rules, but training content/principles universal. French/English.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

D. SWIMMER PROGRAM DEVELOPMENT

1. Swimmer Program Development

• Adapted Programs Handbook – general guidelines for conducting programs for the disabled. Editor: Dawn Bean. 40 pages, English only. Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

2. Swimmer Program Development

• Synchro for All – Ideas on how to integrate synchro into pool programs.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• Aqua Fun Instructor's Guide – Complete 9 lesson planner with objectives, lesson overview, content suggestions and teaching tips for a play-based water orientation program for 5-12 year olds. Includes 3 synchro-specific lessons. Suitable for use by any qualified swimming instructor. French/English.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• AquaGames Instructor's Guide – all types of aquatic games for use as 'fun' teaching aids. Some synchro specific. French/English.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• A Little Synchro Every Day – Fun based games, songs and drama activities with a synchro twist.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9

Phone: 1-613] 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• Synchro Intro – self-study guide to recreation synchro program instructors. Introductory coaching information. 157 pages, 1998, English only. By M. Erickson, P. Edwards, C. Davis

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Three Month Curriculum for the Beginning Synchronised Swimming Class - includes drills, daily schedules, workout charts. 55 pages, 1988, English only. By Dawn Bean, Charlotte Davis.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

3. Skill recognition achievement award programs

• Star Program Manual – revised 2001. Canadian program. 17 progressive skill development levels. It includes complete skill and technique descriptions; teaching steps and corrections for common faults. French/English plus NTSC videos and examiner guides for each level

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• Star Program. New Zealand. 8 levels.

Contact: Sue Edwards, Te Pangu Bay, Private Bag 424, Picton, New Zealand.

Phone: 64-3 579 9755

Fax: 64-3 579 9756

E. COMPETITION MANAGEMENT

• New Zealand Meet Manager's Guide – simple version for running small competitions. Contact: Sue Edwards, Te Pangu Bay, Private Bag 424, Picton, New Zealand.

Phone: 64-3 579 9755

Fax: 64-3 579 9756

• USSS Meet Management Guide – basic instructions for conducting a championship event. Can be adapted for any level. 90 pages, updated annually. English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org

• Synchro Canada Meet Manager's Guide - Detailed outline of policies/procedures related to organizing a synchro competition. Canadian/FINA rules. English only.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9.

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

• Scoring Manual – basic information for establishing, staffing, supplying and conducting scoring for a synchro competition. Covers USSS & general FINA guidelines. 35 pages, updated annually. English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

F. MISCELLANEOUS

1. Printed material

• USSS Risk Management and Loss Prevention Guide – guidelines to minimize injury; enhance water safety; and develop a risk free organization. 23 pages, 1993, English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

• Synchro Showbiz Vol. 1 Basic guide to writing/producing watershows for entertainment, including sample show themes and music selections. English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

• Synchro Showbiz Vol. 2 – Advanced guide to writing and producing watershows. English only.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

• The Eye of the Artist: A Scientific Approach to Synchronised Swimming – 1996. Broad based scientific knowledge – anatomical, physiological, biomechanical – applied to how a synchro swimmer moves in the water, trains and performs. Specific coaching suggestions re application to daily training and competition preparation. Author: Duke Zielinski. 239 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

• The Coach's Planner – 1997. Yearly planner designed for synchro coaches. Daily, weekly, monthly and yearly goal and planning pages covering 12 months. Author: Duke Zielinski. 325 pages; English only; all levels.

Contact: Esynchro, 995 Detroit Ave. Suite D, Concord, California 94518

Phone: 1-925 459-2880

Fax: 1-925 459-2881

Email: esynchro@astound.net

Website: www.esynchro.com

2. Videos

• Promotional Video – 1997. NTSC. Informational video made for attracting sponsors, spectators and outside groups to support synchro. Produced by U.S. Olympic Committee.

Contact: U.S. Synchronised Swimming; 201 S. Capital Ave., Suite 901, Indianapolis, Indiana, USA 46225.

Phone: 1-317 237-5700

Fax: 1-317 237-5705

Email: webmaster@usasynchro.org

Website: www.usasynchro.org.

• Promotional Video NTSC. Clips of provincial and national promotional footage.

Contact: Synchro Canada, 1010 Polytek Street, Unit #14, Suite 200, Gloucester, Ontario. Canada KIJ 9H9

Phone: 1-613 748 5674

Fax: 1-613 748 5724

Email: src@synchrocanada.com

Website: www.synchrocanada.com

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