
# FINA SYNCHRONISED SWIMMING MANUAL FOR JUDGES, COACHES & REFEREES

**According to FINA Handbook 2013 - 2017**

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# MESSAGE FROM THE FINA PRESIDENT

It is my great pleasure to present you the ***FINA Synchronised Swimming Manual for Judges, Coaches and Referees***, a precious tool for all those in charge of developing and promoting this artistic discipline in the five continents.

Synchronised Swimming has steadily progressed 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 recent years, the arrival of new countries to the podium of our main competitions is a very positive and encouraging outcome.

The 2013 FINA Technical Congress in Barcelona (ESP), with the occasion of the 15th FINA World Championships, approved important changes that need to be correctly assimilated by the Synchro family. This Manual provides the keys for a homogenous and clear understanding of these new rules.

Synchronised Swimming is in constant evolution. More events are organised on a local, national and international level, attracting an increasing number of young athletes to this discipline. The preparation of our coaches, the quality of judges and obviously the devotion of our competitors are strong assets of this winning strategy. Providing them with this manual will enhance the assimilation and transmission of technical knowledge, basic tools in such a challenging and spectacular discipline.

I would like to express my gratitude to the FINA Technical Synchronised Swimming Committee (TSSC) for putting together this manual. I warmly thank all the members of the TSSC for their support and enthusiasm.

For the judges, coaches and referees, I am sure that this *FINA Synchronised Swimming Manual* will be essential in the accomplishment of your activities. Together with the athletes and the support they receive from their respective National Federation, you are the pillars of the future development of this discipline on a global scale!

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, Jennifer Gray and Danae Christou. 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 – present

Manual editor – 2013

# FINA Bureau 2013 – 2017

| | |
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| | |
|---|---|
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| **BUREAU LIAISON** | Qiuping Zhang (CHN) |

# 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. Any nominee must have attended a FINA Judges' School, and passed the Test. All nominations must be submitted to the FINA Office in Lausanne, Switzerland by October 31st in any given year.

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.)

   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

   d. 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. 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. Very Good
   4. Good
   3. Satisfactory
   2. Deficient
   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 Very Good (5) or Good (4) Overall.
   - Two Evaluations may be Very Good (5), Good (4) or Satisfactory (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, with the exception of FINA TSSC Members.
- At least one evaluation must be from a Senior competition, and at least one evaluation from a Junior or Age Group competition
- Evaluations must be from competitions where the current Judging Systems are used.

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.
- Three Evaluations must be Very Good (5) or Good (4).
- One Evaluation may Very Good (5), Good (4) or Satisfactory (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 one evaluation must be from a large Junior or Age Group competitions.
- At least two evaluations must be from a competition with entries from at least 10 (ten) Federations.
- 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, with the exception of FINA TSSC Members.
- 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. The Activity Report is usually required by the FINA Office to be returned by the end of October in any given year.

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 Very Good (5), Good (4) or Satisfactory (3) 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, with the exception of FINA TSSC Members.

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.

Competitions which will be taken in to consideration for judge re-classification :-

Continental Championships – Senior, Junior or Age Group.

Competitions which have a FINA List Evaluator appointed.

Major Regional or National competitions.

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 judging is not permitted at the Olympic Games.

To Practice Judge at the aforementioned competitions, a Judge must have attended a FINA Judges' School and passed the Test.

FINA "A" list Judges are not permitted to Practice Judge at the aforementioned competitions.

## 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 Tournament.

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.

   - 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

- 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

- For World Championships, Olympic Qualification Competition and the Olympic Games only FINA List A judges shall be selected. cf. FINA BL 9.1.

  For the World Junior Championships each Federation may send one judge. This may be an "A" or "B" list judge, or a "G" judge who has judged at a minimum of 2 International competitions in the previous 2 years. After Preliminary entries are received, Federations which have entries in all events may be invited to send a second Judge.

- For 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 2 years.

- Qualified members of the TSSC may be used as judges at any FINA competition.
- The number of judges appointed to the Olympic Games is determined by the IOC and/or the FINA Bureau.
- 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 Organizing Committee.
- To be considered for judging at a FINA competition, a judge must have successfully passed the Judges Exam administered at a FINA Judges School.

# 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
- 2013 – 2017 FINA Figures and Technical Routine Required 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 2013 - 2017 Figures and Technical Routine Required Elements.
   d. Be able to identify the current Age Group figures.
   e. Obtain practical experience judging at Age Group level competitions.

1) 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 2013 - 2017 Figures and Technical Routine Required 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 organizing 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 synchronized 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 2013 - 2017 Figures and Technical Routine Required 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. “ Free 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. Wearing white shirt, pants or skirt and shoes, unless otherwise specified.
- Disregarding public applause and disapproval.
- Being punctual for an appointment.

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

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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**
5. **FINA Synchronised Swimming Evaluation form**

Country Code:

# FINA SYNCHRONISED SWIMMING JUDGES LIST – CONFIRMATION FORM

Please return this form completed for each judge that you are confirming, and for each new judge that you are nominating. All names must appear on this form.

**Please fill out an activity report for each judge that you are confirming.**

## National Federation

| Full Name | Country Code |
|---|---|
| | |

## LIST OF JUDGES (Tick where appropriate)

| First Name | Surname | Cat. | Confirm | Remove |
|---|---|---|---|---|
| | | | | |
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Signature of the President / Honorary Secretary:

Stamp of National Federation:

Please return this form to the FINA Office in Lausanne

Email: synchro@fina.org / Fax: (41-21) 312 66 10

FINA SYNCHRONISED SWIMMING JUDGES LIST – ACTIVITY REPORT

Name: National Federation Code:

Please return this form completed for each judge that you are confirming.
Please fill in the name of the judge and the country code at the top of each form.

**National Federation:**

| Full Name | Country Code |
|---|---|
| | |

**Judge:**

| | | | |
|---|---|---|---|
| Family Name(s): | | | |
| First Name(s) | | | |
| Date of Birth (dd,mm,yyyy) | | Sex (Male/Female) | |
| FINA List category – **For new judges please use the Nomination Form** | | | |

**Clinics & Schools:**

| Clinics Attended (FINA, Continental, Others – Date & Place) | |
|---|---|
| | |
| FINA School (Date & Place) | Test Result: |
| | |

**Judging Activity:**

| National Activities | Yes | No |
|---|---|---|
| International Activities (Name of the Competition / Date / Place) | | |
| | | |

Signature of the President / Honorary Secretary:

Stamp of National Federation:

Please return this form to the FINA Office in Lausanne
Email: synchro@fina.org / Fax: (41-21) 312 66 10

FINA SYNCHRONISED SWIMMING JUDGES LIST – NOMINATION FORM

Name: National Federation Code:

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Please return one completed form for each new Judge. Please join **a passport / ID card copy. The application will not be considered without it.**

**National Federation:**

| Full Name | Country Code |
|---|---|
| | |

**Judge:**

| | | | |
|---|---|---|---|
| Family Name(s): | | | |
| First Name(s) | | | |
| Date of Birth (dd,mm,yyyy) | | Sex (Male/Female) | |
| Address: | | Phone:<br><br>Email address: | |

**Training**:

| National Courses Attended | Year |
|---|---|
| | |
| FINA Clinics Attended | Year |
| | |
| FINA Schools Attended | Year |
| | |

FINA SYNCHRONISED SWIMMING JUDGES LIST – NOMINATION FORM

Name: National Federation Code:

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**Judging Experience:**

| National Competitions (min. 3 years) | Year |
|---|---|
| | |
| **International Competitions** | **Year** |
| | |

Signature of the President / Honorary Secretary:

Stamp of National Federation:

Country Code: ☐

# 2013-2017 FINA Synchronised Swimming Practice Judging Form

**National Federation of:**_____

**Judge to be included in the shadow panel:**

Name: _____ Surname: _____

FINA List Category (A, B or G): _____ Since (year): _____

Number of FINA evaluations: _____

**Competition Information:**

Name of the event: _____

Dates: _____ Place: _____

FINA Synchronised Swimming Judges School:

Dates: _____ Place: _____

Test Result: _____

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This form must be signed by the Federation's President of General Secretary:

Name: _____ Position: _____

Signature: Stamp:

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Applications must be returned to the FINA Office **60 days prior to the Competition**

Email: synchro@fina.org / Fax: (41-21) 312 66 10

**SYNCHRONISED SWIMMING COMPETITION TECHNICAL ROUTINES AND FIGURES** **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** | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG | S, D, T, FIG |
|---|---|---|---|---|---|---|---|---|
| | Tech | Tech | Tech | Tech | Tech | Tech | Tech | Tech |
| | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final |
| | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE | EX, IMP, ELE |
| **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 | 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 | 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 | 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 | 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 | 5 4 3 2 1 |
| Consider: Ties | 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 | 5 4 3 2 1 |
| Consider: Total Deviation | 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 | 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** | **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** | **3 2 1** |
| **General comments on:** Independence, promptness, professionalism, concentration etc. | | | | | | | | |

5 Very good ¦ 4 = Good ¦ 3 = Satisfactory ¦ 2 = Deficient¦ 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** |

Date: _____ Signature: _____

**SYNCHRONISED SWIMMING COMPETITION FREE ROUTINES** **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** | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H | S, D, T, C, H |
|---|---|---|---|---|---|---|---|---|
| | Free | Free | Free | Free | Free | Free | Free | Free |
| | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final | Prelim / Final |
| | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF | EX, AI, DIF |
| **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 | 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 | 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 | 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 | 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 | 5 4 3 2 1 |
| Consider: Ties | 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 | 5 4 3 2 1 |
| Consider: Total Deviation | 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 | 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** | **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** | **3 2 1** |
| **General comments on:** Independence, promptness, professionalism, concentration etc. | | | | | | | | |

5 Very good ¦ 4 = Good ¦ 3 = Satisfactory ¦ 2 = Deficient¦ 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** |

Date: Signature:

# 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 1/10$^{th}$ 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. Height is evaluated based on the water level of body parts.

**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 **Split Positions**, 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.

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 evaluated based on the water level of body parts.

# 4. EXPANDED MARKING SCALE FOR FIGURES

| 10<br>Perfect | 9.5 to 9.9<br>Near Perfect | 9.0 to 9.4<br>Excellent | 8.0 to 8.9<br>Very Good | 7.0 to 7.9<br>Good | 6.0 to 6.9<br>Competent |
|---|---|---|---|---|---|
| **General Impression** | | | | | |
| Flawless | Minute deviations from perfection. | Minor errors but none are significant. | A few minor errors. | Above average. | Average. Comfortable. |
| **Accuracy of Positions / Stability / Ease of performance** | | | | | |
| Total accuracy. Stable, controlled. Correct body alignment maintained throughout. Complete ease of performance. | Very precise. Stable. Minute deviations, difficult to detect. | Accurate but some may lack complete clarity. Stable. | Most positions 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 stability and control in difficult parts. |
| **Accuracy of Transitions and Movements / Ease of performance** | | | | | |
| Efficient and accurate course of action. Complete ease of performance. | Direct course of action. Positions 'lock into place'. Minute wavering from line of transition. | Very minor but noticeable inaccuracies in line of transition or breaks in fluidity. | Minor deviations in accuracy, efficiency &/or fluidity. Not effortless in all sections. | Obvious irregularities but none are major. Unsure and strained in parts. Effort evident in difficult parts. | Inconsistent. Problems with more difficult transitions. Effort evident throughout. |
| **Extension / 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 – Refer to Height Chart.** | | | | | |
| Maximum height at all times, with level maintained as required throughout. | Almost maximum height with no level changes except as required. | Close to maximum height with minimal level changes. | High, but may lose height on most difficult transition and positions. | Above average height on easy parts with some minor level changes. Loses height on difficult transitions. | Average height. Inconsistent & changing especially in more difficult positions and transitions. |
| **Timing / Uniform Motion / Stationary** | | | | | |
| Smooth, uniform tempo at a comfortable speed except where required. No travel unless otherwise specified. | Minute variations in timing or position except where required. No travel unless otherwise specified. | Very minor variations in timing or position. No travel unless otherwise specified. | Timing a little bit faster or slower than as described. Not always uniform. Little if any travel. | Timing changes that are not required in the description. Strained at times. Minimal travel. | Timing may be hurried and/or uneven during uniform motion parts. Obvious travel in one or more parts. |

# EXPANDED MARKING SCALE FOR FIGURES - continued

| 5.0 to 5.9<br>Satisfactory | 4.0 to 4.9<br>Deficient | 3.0 to 3.9<br>Weak | 2.0 to 2.9<br>Very Weak | 0.1 to 1.9<br>Hardly Recognizable | 0<br>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 |
| **Accuracy of Positions / Stability / Ease of performance** | | | | | |
| Many minor problems. Major errors at lower end of range. Minimal control. | Most positions inaccurate with some major problems in achieving positions. Unstable. | Identifiable but very inaccurate throughout. Little control evident. | General outline present, but positions unclear. No control evident. | Complete lack of definition and control. | See SS 10.1.1 |
| **Accuracy of Transitions and Movements / Ease of performance** | | | | | |
| Accuracy inconsistent. Some major deviations. Minimal control. Effort evident throughout. | Evident effort to meet requirements. Major errors throughout. Loses control in many parts. | Little attention to transition specifics. Many major problems in all transitions. | No attention to transition specifics. | Merely moves from one position to another. | See SS 10.1.1 |
| **Extension / Clarity / Definition** | | | | | |
| Some attempt to define positions, but often not clear. Minimal extension. | Clarity is imprecise. Poor extension. | Unclear and poor extension throughout. | Difficult to identify a position or a transition. No extension evident. | No clarity, extension or definition throughout. | See SS 10.1.1 |
| **Height – Refer to Height Chart.** | | | | | |
| Some height may be evident in easier sections. | Low and inconsistent. Level changes throughout. | Low. Extreme difficulty to achieve any height. | Very low. Natural buoyancy only. | No effort. | See SS 10.1.1 |
| **Timing / Uniform Motion / Stationary** | | | | | |
| Often rushed & seldom stationary. Segmented. Obvious travel evident. | Rushed and uneven timing. Significant travel in one or more parts. | Fast and/or uneven timing. Significant travel throughout. | No apparent consideration for timing or travel requirements. | Completely lacking in correct-timing. Significant travel throughout. | See SS 10.1.1 |

# B. IDENTIFYING DIFFICULTY IN FIGURES

## 1. IDENTIFY ESSENTIAL SYNCHRO SPECIFIC ELEMENTS

For determining degrees of difficulty, the following Essential Synchro Specific Elements (ESSE) were defined, and assigned values. The assessed values are based upon the relative difficulty of each component within a given transition.

**Essential Synchro Specific Elements (ESSE)**

- Sculling Proficiency
- Shift of relationship between the Center of Gravity and Buoyancy as it affects stability
- Kinesthetic Awareness – the ability to know the spatial relationships of the body parts
- Airborne Weight
- Resistance as created by Buoyancy and/or Drag
- Joint Flexibility

## 2. 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 Back Layout | 10.5 |
| 1.2 | Back Layout to Ballet Leg (Straight Leg Lift) | 14.5 |
| 1.3 | Back Layout to Bent Knee Double | 19.0 |
| 1.4 | Back Layout to Tub | 4.0 |
| 1.5 | Ballet Leg to Bent Knee Back Layout | 11.0 |
| 1.6 | Ballet Leg to Flamingo | 10.5 |
| 1.7 | Ballet Leg to Back Layout (Straight Leg Lowering) | 14.5 |
| 1.8 | Ballet Leg to Ballet Leg Double (Straight Leg Lift) | 20.0 |
| 1.9 | Bent Knee Back Layout to Ballet Leg | 11.0 |
| 1.10 | Bent Knee Back Layout to Back Layout | 10.5 |

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

## 2. Category 2: Airborne - Vertical Base

| | | |
|---|---|---|
| 2.1 | Fishtail / Crane to Front Pike | 17.5 |
| 2.2 | Fishtail / Crane to Knight (Dalecarlia, Jupiter) | 23.0 |
| 2.3 | Fishtail / Crane to Split | 16.5 |
| 2.4 | Fishtail to Split (Butterfly) | 28.0 |
| 2.5 | Fishtail / Crane to Vertical (Jupiter & Tower) | 18.5 |
| 2.6 | Fishtail / Crane to Bent Knee Vertical (Neptunus) | 14.5 |
| 2.7 | Fishtail to Knight (Aurora Open & Beluga) | 17.0 |
| 2.8 | Front Pike to Fishtail / Crane (Beluga & Jupiter & Tower) | 13.5 |
| 2.9 | Front Pike to Split | 21.0 |
| 2.10 | Front Pike to Vertical | 29.0 |
| 2.11 | Front Pike to Bent Knee Vertical | 16.0 |
| 2.12 | Knight to Fishtail (Jupiter; at surface) | 17.0 |
| 2.13 | Bent Knee Vertical to Vertical | 14.5 |
| 2.14 | Vertical to Fishtail / Crane | 19.5 |
| 2.15 | Vertical to Knight | 21.5 |
| 2.16 | 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 | Airborne Split to Vertical (Airborne Split) | 21.0 |
| 3.5 | Arched Fishtail to Arched Vertical (Pirouette) | 24.5 |
| 3.6 | Arched Fishtail to Fishtail / Crane (Hightower) | 11.0 |
| 3.7 | Arched Bent Knee Vertical to Surface Arch (Pirouette) | 20.0 |
| 3.8 | Arched Bent Knee Vertical to Ballet Leg (Swordasub) | 22.5 |
| 3.9 | Arched Bent Knee Vertical to Knight (Swordtail) | 21.0 |
| 3.10 | Bent Knee Surface Arch to Bent Knee Vertical | 21.0 |
| 3.11 | Bent Knee Surface Arch to Surface Arch | 15.5 |
| 3.12 | Bent Knee Surface Arch to Vertical (Oceanita) | 21.5 |
| 3.13 | Bent Knee Surface Arch to Vertical (Cyclone) | 39.0 |
| 3.14 | Front Layout to Split | 30.0 |
| 3.15 | Bent Knee Front Layout to Bent knee Surface Arch (Swordfish) | 31.0 |
| 3.16 | Knight to Ballet Leg | 14.0 |
| 3.17 | Knight to Bent Knee Surface Arch | 19.5 |
| 3.18 | Knight to Surface Arch | 20.5 |
| 3.19 | Knight to Split | 16.5 |
| 3.20 | Knight to Vertical | 21.5 |
| 3.21 | Knight to Bent Knee Vertical (Knight) | 16.0 |
| 3.22 | Surface Arch to Knight | 17.5 |
| 3.23 | Surface Arch to Split | 21.0 |
| 3.24 | Split to Fishtail / Crane | 13.5 |
| 3.25 | Split to Fishtail (Butterfly; as 180º rotation is executed) | 27.5 |
| 3.26 | Split to Front Pike | 18.0 |
| 3.27 | Split to Knight | 18.5 |
| 3.28 | Split to Surface Arch | 24.0 |
| 3.29 | Split to Vertical | 16.0 |
| 3.30 | Split to Vertical (Ankle Level) (Blossom & Prawn & Surface 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 | Fishtail / Crane to Bent Knee Surface Arch (Manta Ray) | 23.5 |
| 4.6 | Front Layout to Arched Fishtail (Hightower) | 25.5 |

| | | |
|---|---|---|
| 4.7 | Bent Knee Front Layout to Arched Bent Knee Vertical | 28.0 |
| 4.8 | Front Pike to Split (Surface Prawn; at the surface) | 12.0 |
| 4.9 | Surface Arch to Back Layout | 11.0 |
| 4.10 | Bent Knee Vertical to Bent Knee Surface Arch | 20.0 |
| 4.11 | Bent Knee Vertical to Split (bent leg to be the front leg) | 19.0 |
| 4.12 | Vertical to Surface Arch | 33.0 |

## 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 | Ankle level Vertical to submerged Vertical (Prawn & Surface Prawn) | 0.0 |
| 6.8 | Bent Knee Vertical to submerged Bent Knee Vertical | 10.0 |
| 6.9 | Bent Knee Vertical to submerged Vertical (Neptunus) | 9.5 |
| 6.10 | Split to ankle level Vertical (Blossom & Prawn & Surface Prawn) | 7.0 |

## 7. Category 7: Multi-dimensional

| | | |
|---|---|---|
| 7.1 | Arched Bent Knee Vertical to Submerged Flamingo(Swordalina) | 20.5 |
| 7.2 | Back Layout to Front Pike (Albatross) | 12.0 |
| 7.3 | Ballet Leg to arched Fishtail (Pirouette) | 23.0 |
| 7.4 | Ballet Leg to Fishtail / Crane (Catalina) | 24.0 |
| 7.5 | Fishtail / Crane to Ballet Leg (Reverse Catalina) | 24.0 |
| 7.6 | Fishtail / 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 Fishtail / 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 |
| 8.10 | Submerged Vertical to Crane (Dolpholina) | 9.5 |
| 8.11 | Submerged Vertical to Submerged Back Pike | 16.0 |
| 8.12 | Submerged Vertical to Submerged Ballet Leg Double | 10.0 |
| 8.13 | 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 Fishtail / Crane (Ibis) | 26.0 |
| 9.5 | Fishtail / 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 Fishtail / Crane (tip) | 18.5 |
| 9.11 | “V” Pike to Back Layout | 3.0 |
| 9.12 | Submerged Ballet Let Double 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 |
| 9.16 | Ballet Leg to Inverted Tuck (London) | 10.0 |

## 10. Category 10: Rotation – Longitudinal Axis

### a. Horizontal Planes

| | | |
|---|---|---|
| 10.1 | Ballet Leg to Side Ballet Leg | 18.5 |
| 10.2 | Submerged Ballet Leg to Inverted submerged Ballet Leg | 18.0 |

| | | |
|---|---|---|
| 10.3 | Inverted submerged Ballet Leg to submerged Ballet Leg | 18.0 |
| | | |

### b. Twists

| | | |
|---|---|---|
| 10.4 | Fishtail / 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 180º) | 26.0 |
| 10.8 | Knight Full Twist (Aurora Open 360º) | 29.0 |
| 10.9 | Knight to Fishtail (Aurora) | 13.0 |
| 10.10 | Split ½ Twist | 18.0 |
| 10.11 | Split through Knight variant to VBK With ½ twist (Minerva) | 26.0 |
| 10.12 | Split to Split (Ariana) | 9.0 |
| 10.13 | Split to Vertical 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 | Bent Knee Vertical ½ Twist | 15.5 |
| 10.21 | Bent Knee Vertical Full Twist | 22.0 |
| 10.22 | Bent Knee Vertical to Vertical ½ Twist (Albatross) | 16.5 |
| 10.23 | Bent Knee Vertical to Vertical Full Twist (Nova) | 18.5 |
| 10.24 | Fishtail 3 Full Twists (Rapid) | 19.0 |
| 10.25 | Fishtail 2 rapid rotations | 18.5 |

### c. Twirls

| | | |
|---|---|---|
| 10.26 | Vertical at ankles | 16.0 |
| 10.27 | Vertical | 23.0 |
| 10.28 | Vertical (Unstable Base) | 35.0 |

| | | |
|---|---|---|
| 10.29 | Vertical to Bent Knee Vertical | 19.5 |
| 10.30 | Bent Knee Vertical | 19.5 |
| 10.31 | Bent Knee Vertical to Vertical (Albatross) | 19.5 |

### d. Descending Spins

| | | |
|---|---|---|
| 10.32 | Fishtail / Crane to Vertical 360º (Helicopter) | 36.0 |
| 10.33 | Fishtail to Vertical 180º (Carousel) | 18.5 |
| 10.34 | Vertical 180º (Stable Base) | 17.0 |
| 10.35 | Vertical 180º (Unstable Base) | 19.0 |
| 10.36 | Vertical 360º (Stable Base) | 19.0 |
| 10.37 | Vertical 360º (Unstable Base) | 21.0 |
| 10.38 | Vertical Continuous Spin (Stable base) | 27.0 |

| | | |
|---|---|---|
| 10.39 | Vertical Continuous Spin (Unstable base) | 29.0 |
| 10.40 | Bent Knee Vertical 180º | 13.0 |
| 10.41 | Bent Knee Vertical Join 180º (Stable Base) | 13.0 |
| 10.42 | Bent Knee Vertical Join 180º (Unstable Base) | 15.0 |
| 10.43 | Bent Knee Vertical 360º | 15.0 |
| 10.44 | Bent Knee Vertical Join 360º | 15.0 |
| 10.45 | Bent Knee Vertical Continuous Spin | 24.0 |

### e. Ascending Spins

| | | |
|---|---|---|
| 10.46 | Vertical 180º | 19.0 |
| 10.47 | Vertical 360º | 20.0 |
| 10.48 | Bent Knee Vertical 180º | 15.0 |
| 10.49 | Bent Knee Vertical Join 180º (Albatross) | 14.5 |

| | | |
|---|---|---|
| 10.50 | Bent Knee Vertical 360º | 16.5 |
| 10.51 | Bent Knee Vertical Join 360º (Albatross) | 21.0 |
| 10.52 | Vertical to Fishtail 180º (Carousel) | 18.5 |
| | | |

### f. Combined Spins

| | | |
|---|---|---|
| 10.53 | Combined Spin | 39.0 |
| 10.54 | Reverse Combined Spin | 39.0 |
| 10.55 | Twist Spin | 46.0 |

| | | |
|---|---|---|
| 10.56 | Bent Knee Combined Spin (Heron) | 31.5 |
| 10.57 | Bent Knee Combined Spin – Joining and bending (Albatross) | 31.5 |
| 10.58 | Reverse Bent Knee Combined Spin | 31.5 |

### 11. Category 11 – Unroll

| | | |
|---|---|---|
| 11.1 | Ballet Leg Double to Vertical | 26.0 |
| 11.2 | Flamingo to Fishtail / Crane (Manta Ray) | 22.5 |
| 11.3 | Flamingo to Fishtail (Sting Ray) | 25.0 |
| 11.4 | Flamingo to Bent Knee Vertical | 22.0 |
| 11.5 | Inverted Tuck to Vertical | 23.0 |
| 11.6 | Inverted Tuck to Vertical (Kipswirl) | 50.0 |
| 11.7 | Inverted Tuck to Bent Knee Vertical (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 Bent Knee Vertical (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 Bent Knee Vertical (Thrust) | 30.0 |
| | | |

*** Dynamic Height**
- movement that occurs at maximum sustained height after a thrusting action. plus 10

## 3. STANDARD ADD-ON VALUES (DD) FOR TWISTS AND SPINS

The set of standard add-on values listed below was developed for adding to the base figure DDs.

| | | |
|---|---|---|
| a | Half Twist | 0.4 |
| b | Full Twist | 0.6 |
| c | Twirl (stable base) | 0.5 |
| c | Twirl (unstable base) | 0.6 |
| d | 180° Spin | 0.1 |
| e | 360°Spin | 0.2 |
| f | Continuous Spin (stable base) | 0.5 |

| | | |
|---|---|---|
| f | Continuous Spin (unstable base) | 0.8 |
| g | Twist Spin | 0.7 |
| h | Spin Up 180° | 0.3 |
| i | Spin Up 360° | 0.4 |
| j | Combined Spin | 0.8 |
| k | Reverse combined spin | 0.8 |
| | | |

# 4. 2013-2017 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.

**SENIOR, JUNIOR and AGE GROUP 16, 17, 18 FIGURES**

**COMPULSORY:**

**1 308 Barracuda Airborne Split DD 2.8**

A Barracuda is executed to a submerged **Back Pike Position** with the toes just under the surface. A *Rocket Split* is executed.

|  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|
| NVT | 13.0 | 37.0 | 19.0 | 21.0 | 14.0 | 104 |
| PV | 1.25 | 3.56 | 1.83 | 2.02 | 1.35 | |

**2 355g Porpoise Twist Spin DD 2.6**

A Porpoise is executed to **Vertical Position**. A *Twist Spin* is executed.

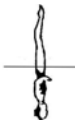
|  |  |  |  | Total |
|---|---|---|---|---|
| NVT | 12.0 | 29.0 | 46.0 | 87 |
| PV | 1.38 | 3.33 | 5.29 | |

## OPTIONAL GROUPS:

### Group 1

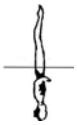
**3 330c Aurora Twirl DD 3.0**

An Aurora is executed to **Vertical Position.** A *Twirl* is executed.

|  |  |  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|---|---|
| NVT | 12.0 | 12.0 | 19.5 | 13.0 | 18.5 | 23.0 | 14.0 | 112 |
| PV | 1.07 | 1.07 | 1.74 | 1.16 | 1.65 | 2.05 | 1.25 | |

**4 154 London DD 2.8**

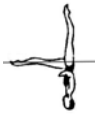
A rapid *Ballet Leg is assumed* followed by a rapid partial Somersault Back Tuck, as both legs are drawn into a **Tuck Position**, until the shins are perpendicular to the surface. The trunk unrolls as the legs are straightened to assume a **Vertical Position** midway between the former vertical line through the hips and the former vertical line through the head and the shins. *A Combined Spin of 360°* is executed.

|  |  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|---|
| NVT | 10.5 | 11.0 | 10.0 | 23.0 | 39.0 | 14.0 | 107.5 |
| PV | 0.98 | 1.02 | 0.93 | 2.14 | 3.63 | 1.30 | |

### Group 2

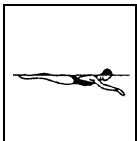
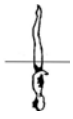
**3 142 Manta Ray DD 2.8**

A Flamingo is executed to a **Surface Flamingo Position**. As the body unrolls, the bent leg is extended horizontally to assume a **Fishtail Position**. 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**. The bent knee is straightened and with continuous motion, an *Arch to Back Layout* is executed.

|  |  |  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|---|---|
| NVT | 10.5 | 11.0 | 10.5 | 22.5 | 23.5 | 15.5 | 11.0 | 104.5 |
| PV | 1.00 | 1.05 | 1.00 | 2.15 | 2.25 | 1.48 | 1.05 | |

**4 343 Butterfly DD 2.9**

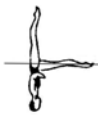
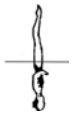
From a **Front Layout Position**, a *Front Pike Position is assumed*. One leg is lifted to a **Fishtail Position**. The horizontal leg is rapidly lifted through an arc of 180° as the vertical leg is lowered to assume a **Split Position**, without hesitating a hip rotation of 180° is executed as the front leg is raised to assume a **Fishtail Position**. The horizontal leg is lifted to a **Vertical Position** at the same tempo as the initial actions of the figure. A *Vertical Descent* is executed.

|  |  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|---|
| NVT | 12.0 | 13.5 | 28.0 | 27.5 | 18.5 | 14.0 | 113.5 |
| PV | 1.06 | 1.19 | 2.47 | 2.42 | 1.63 | 1.23 | |

**Group 3**

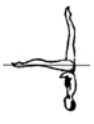
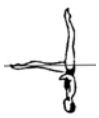
**3 112f Ibis Continuous Spin (720º) DD 2.8**

An Ibis is executed to **Vertical Position**. A *Continuous Spin* (720º) is executed.

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

**4 325 Jupiter DD 2.8**

From a **Front Layout Position** a *Front Pike Position is assumed*. One leg is lifted to a **Fishtail Position**. Maintaining the 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**. Maintaining the vertical alignment of the body, the horizontal leg is moved in a $180^0$ arc at the surface of the water to a **Fishtail Position.** The horizontal leg is lifted to the **Vertical Position.** A *Vertical Descent* is executed.

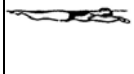
|  |  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|---|
| NVT | 12.0 | 13.5 | 23.0 | 17.0 | 18.5 | 14.0 | 98 |
| PV | 1.22 | 1.38 | 2.35 | 1.73 | 1.89 | 1.43 | |

## AGE GROUP 13-14-15 FIGURES

## COMPULSORY:

**1 423 Ariana DD 2.2**

A Walkover Back is executed to a **Split Position**. Maintaining the relative position of the legs to the surface, the hips rotate 180°. A *Walkout Front* is executed.

|  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|
| NVT | 16.0 | 21.0 | 9.0 | 24.0 | 11.0 | 81 |
| PV | 1.98 | 2.59 | 1.11 | 2.96 | 1.36 | |

**2 301e Barracuda Spinning 360º DD 2.2**

A Barracuda is executed to **Vertical Position**. A *Spinning 360º* is executed at the same tempo as the *Thrust* to complete the figure.

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT | 13.0 | 37.0 | 19.0 | 69 |
| PV | 1.88 | 5.36 | 2.75 | |

## OPTIONAL GROUPS :

### Group 1

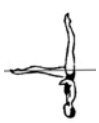
**3 342 Heron DD 2.1**

From a **Front Layout Position**, a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position**. 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. 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. A *Vertical Descent* is executed in a **Bent Knee Vertical Position** at the same tempo as the *Thrust*.

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

**4 115 Catalina DD 2.3**

A *Ballet Leg is assumed*. A *Catalina Rotation* is executed. The horizontal leg is lifted to **Vertical Position**. A *Vertical Descent* is executed.

|  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|
| NVT | 10.5 | 11.0 | 24.0 | 18.5 | 14.0 | 78 |
| PV | 1.35 | 1.41 | 3.08 | 2.37 | 1.79 | |

**Group 2**

**3 355h Porpoise Spin Up 180º DD 2.2**

A Porpoise is executed to **Vertical Position**. A *Spin Up 180º* is executed.

| | | | | | | Total |
|---|---|---|---|---|---|---|
| NVT | 12.0 | 29.0 | 14.0 | 19.0 | 14.0 | 88 |
| PV | 1.36 | 3.30 | 1.59 | 2.16 | 1.59 | |

**4 140 Flamingo Bent Knee DD 2.4**

A Flamingo is executed to a **Surface Flamingo Position**. 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**. The bent knee is extended to **Vertical Position**. A *Vertical Descent* is executed.

| | | | | | | | 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 | |

**Group 3**

**3 240a Albatross 1/2 Twist DD 2.6**

An Albatross is executed until the *Half Twist* is completed. A *Half Twist* is executed as the bent knee is extended to meet the vertical leg. A *Vertical Descent* is executed.

| | | | | | | Total |
|---|---|---|---|---|---|---|
| NVT | 12.0 | 16.0 | 15.5 | 16.5 | 14.0 | 74 |
| PV | 1.62 | 2.16 | 2.09 | 2.23 | 1.89 | |

**4 346 Side Fishtail Split DD 2.0**

From a **Front Layout Position**, a *Front Pike Position is assumed*. 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**. The legs are lifted to **Vertical Position**. A *Vertical Descent* is executed.

| | | | | | Total |
|---|---|---|---|---|---|
| NVT | 12.0 | 23.0 | 16.0 | 14.0 | 65 |
| PV | 1.85 | 3.54 | 2.46 | 2.15 | |

## AGE GROUP 12 and UNDER FIGURES

## COMPULSORY:

**1 101 Ballet Leg Single DD 1.6**

A *Ballet leg is assumed*. The *Ballet leg is lowered*.

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT | 10.5 | 11.0 | 11.0 | 10.5 | 43 |
| PV | 2.44 | 2.56 | 2.56 | 2.44 | |

**2 301 Barracuda DD 2.0**

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. A *Thrust* is executed to **Vertical Position**. A *Vertical Descent* is executed at the same tempo as the *Thrust*.

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT | 13.0 | 37.0 | 14.0 | 64 |
| PV | 2.03 | 5.78 | 2.19 | |

## OPTIONAL GROUPS :

### Group 1

**3 439 Oceanita DD 1.9**

A *Nova* is executed to a **Bent Knee Surface Arch Position.** The horizontal leg is lifted to the vertical as the bent knee is extended to assume a **Vertical Position.** A *Vertical Descent* is executed.

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT | 19.5 | 21.5 | 14.0 | 55 |
| PV | 3.55 | 3.91 | 2.55 | |

**4 362 Surface Prawn DD 1.4**

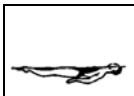
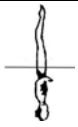
From a **Front Layout Position**, a *Front Pike Position is assumed*. One foot is moved in horizontal arc of 180° at the surface to a **Split Position**. The legs are joined to assume a **Vertical Position** at the ankles. A *Vertical Descent* is executed.

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT | 12.0 | 12.0 | 7.0 | 0.0 | 31 |
| PV | 3.87 | 3.87 | 2.26 | 0.0 | |

**Group 2**

**3 311 Kip DD 1.8**

From a **Back Layout Position**, a partial Somersault Back Tuck is executed until the shins are perpendicular to the surface. 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 the shins. A *Vertical Descent* is executed.

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT | 4.0 | 10.0 | 23.0 | 14.0 | 51 |
| PV | 0.78 | 1.96 | 4.51 | 2.75 | |

**4 360 Walkover Front DD 2.1**

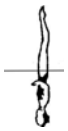
From a **Front Layout Position**, a *Front Pike Position is assumed*. One leg is lifted in a 180° arc over the surface to a **Split Position**. A *Walkout Front* is executed.

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

**Group 3**

**3 349 Tower DD 1.9**

From a **Front Layout Position**, a *Front Pike Position is assumed.* One leg is lifted to a **Fishtail Position**. The horizontal leg is lifted to a **Vertical Position**. A *Vertical Descent* is executed.

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT | 12.0 | 13.5 | 18.5 | 14.0 | 58.0 |
| PV | 2.07 | 2.33 | 3.19 | 2.41 | |

**4 406 Swordfish Straight Leg DD 2.0**

From a **Front Layout Position**, the back arches as one leg is lifted in a 180° arc over the surface to a **Split Position**. A *Walkout Front* is executed.

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT | 30.0 | 24.0 | 11.0 | 65 |
| PV | 4.62 | 3.69 | 1.69 | |

# C. ANALYSIS OF FIGURES

## 1. ANALYSIS OF BASIC POSITIONS

### FINA Handbook APPENDIX II - Basic Positions

In all basic positions:

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

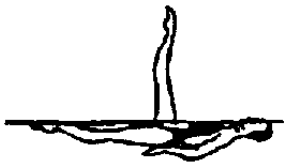
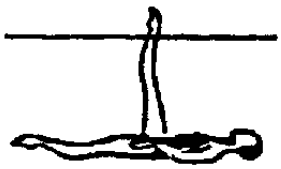
**BP 1 Back Layout Position**

| 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. |

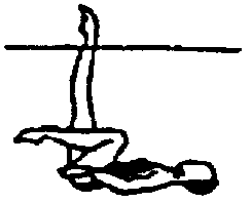
**BP 2 Front Layout Position**

| 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. |

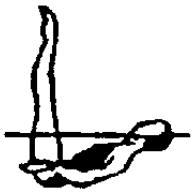
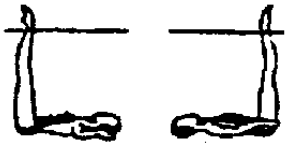
**BP 3 Ballet Leg Position**

| 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˚. |

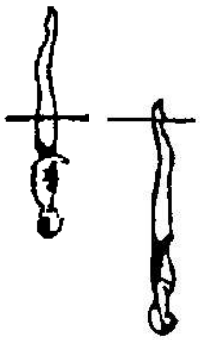
**BP 4 Flamingo Position**

| 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. | | |

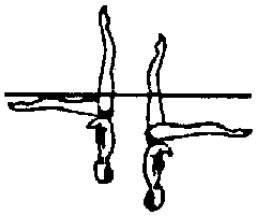
**BP 5 Ballet Leg Double Position**

| 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. | | |

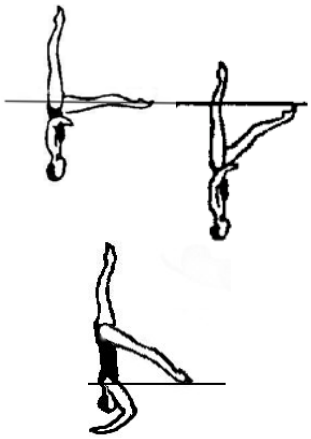
**BP 6 Vertical Position**

| 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. See 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. Body extended in **Vertical Position**, with one leg extended forward. 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. |

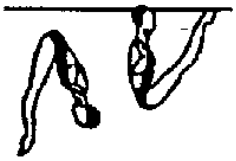
**BP 9 Tuck Position**

| Rule Book Description | Diagrams | Major Desired Actions |
|---|---|---|
| 1. Body as compact as possible, with the back rounded and 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 back straight and head in line. | | 3. Back flat, with vertical alignment of ear, shoulder joint, middle of side of trunk, and hip joint. |

**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. |

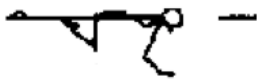
**BP 12 Dolphin Arch Position**

| 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**

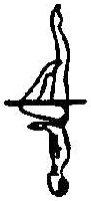
| Rule Book Description | Diagrams | Major Desired Actions |
|---|---|---|
| 1. Lower back arched, with hips, shoulders and head on a vertical line. |  | 1. Hip joints on a horizontal line; shoulder joints on a horizontal line, with both of these alignments 'square' and parallel to one another. Head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

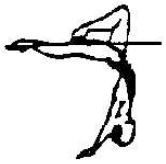


1. In BP 6 **Vertical Position** the alignment points of the extended leg, trunk and head remain the same.

**d) Bent Knee Surface Arch Position**

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

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



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

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

**e) Bent Knee Dolphin Arch Position**

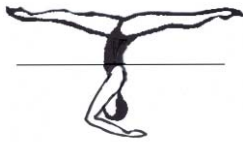
1. Body arched in **Dolphin Arch Position**, with the toe of the bent leg at the knee or thigh.

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

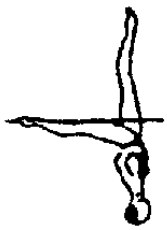
**BP 15 Tub Position**

| 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. Hip 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**<br>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**<br>1. Legs are above the surface. |  | 1. Full extension of the legs completely above the surface. Maximum height is desirable. |

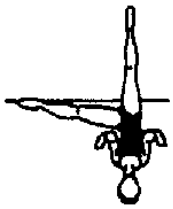
**BP 17 Knight Position**

| 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. |

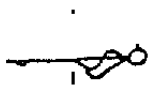
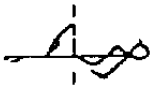
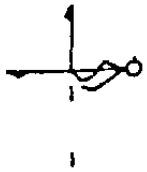
**BP 19 Side Fishtail Position**

| 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. |

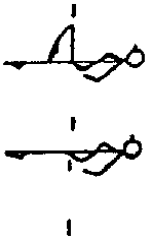
# 2. ANALYSIS OF BASIC MOVEMENTS

## FINA Handbook APPENDIX III - Basic Movements

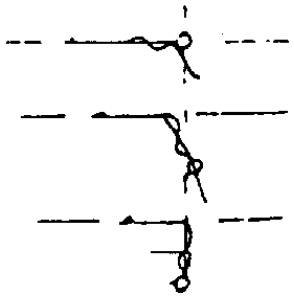
### BM 1 *To Assume a Ballet Leg*

| 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. |

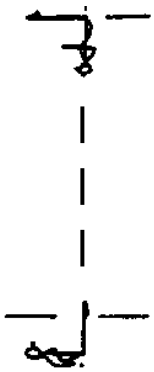
### BM 2 *To Lower a Ballet Leg*

| 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. |

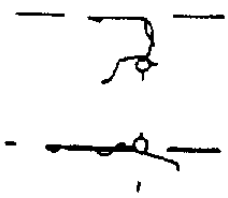
**BM 3 *To Assume a Front Pike Position***

| 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. Full extension of legs and feet at the surface. Trunk remains straight throughout the movement. Hips and head lock into position simultaneously. The hips replace the head at the surface.<br><br>1.2 Unless otherwise specified, *To Assume a Front Pike Position* starts from a **Front Layout Position**. |

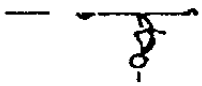
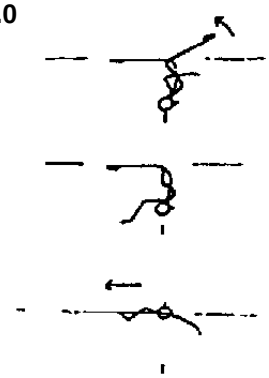
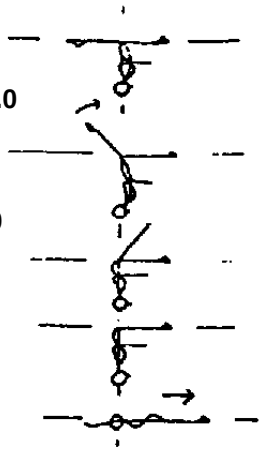
**BM 4 *A Front Pike Position to Assume a Submerged Ballet Leg Double Position***

| 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.**<br><br>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 Position** and BP 5b **Submerged Ballet Leg Double Position.**<br>90° angle maintained throughout rotation.<br><br>2. Body alignment, extension and uniform speed of movement maintained. |

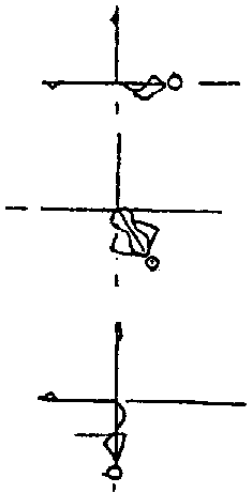
**BM 5 *Arch to Back Layout Finish Action***

| 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. |

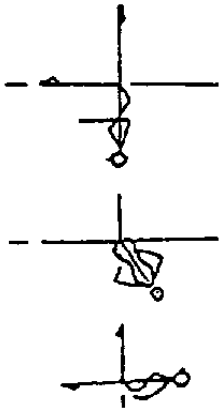
**BM 6 *Walkouts***

| 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*** | | | |
| 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 Finish Action* is executed. | **24.0**<br>**11.0** |  | 1.1 Hip height remains constant and as close to the surface as possible.<br>1.2 Arcing leg moves continuously at an even tempo.<br>1.3 Both legs maintain full extension.<br>1.4 Trunk maintains same position until the feet join.<br>1.5 An accurate BP 13 **Surface Arch Position** should be evident before the body begins to rise and straighten.<br>1.6 Foot first surfacing motion begins when the feet are joined.<br>1.7 See BP 13 **Surface Arch Position** and BM 5 *Arch to Back Layout Finish Action.* |
| **b) *Walkout Back*** | | | |
| 1. 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**<br>**9.0** |  | 1.1 Same as 1.1-1.4 in BM6a *Walkout Front.*<br>1.2 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.** |
| 2. The head surfaces at the position occupied by the hips at the beginning of this action. | | | 2. Body straightens, rises and moves along the surface simultaneously, with a stationary BP 2 **Front Layout Position** achieved as the head surfaces. |

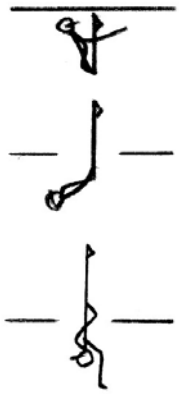
**BM 7 *Catalina Rotation***

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Ballet Leg Position**, a rotation of the body is initiated. | | | 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 **Fishtail Position**. | **24.0** |  | 2.1 Rotation begins not later than when the nose goes beneath the surface of the water.<br>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.<br>2.3 Height and tempo constant throughout.<br>2.4 See BP 8 **Fishtail Position**. |
| 3. The vertical leg remains perpendicular to the surface while the foot of the horizontal leg remains at the surface, 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. |

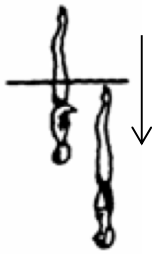
**BM 8 *Catalina Reverse Rotation***

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Fishtail Position**, the hips rotate as the trunk rises, without lateral movement, to assume a **Ballet Leg Position.** | **24.0** |  | 1.1 See BP 8 **Fishtail** and BP 3 **Ballet Leg Positions.**<br>1.2 Same as 2.3 in BM 7 *Catalina Rotation.*<br>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 vertical leg remains perpendicular to the surface while the foot of the horizontal leg remains at the surface, 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. |

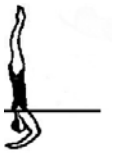
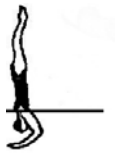
**BM 9 *Thrust***

| 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.<br>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.**<br>1.3 Obvious increase in the 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 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***

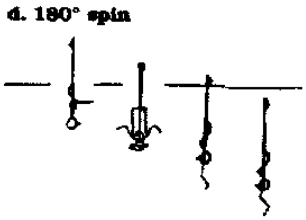
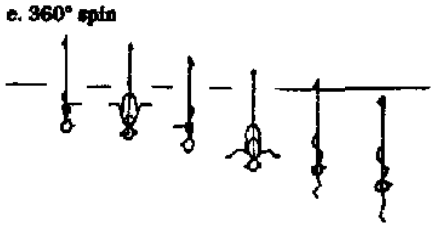
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *thrust* is executed to a **Vertical Position**, maintaining maximum height the legs are split rapidly to assume an **Airborne Split Position** and rejoin to a **Vertical Position**, followed by a *Vertical Descent*. | **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 Without loss of the height the legs are split to **Airborne Split Position**. Full extension of the legs above and parallel to the surface. |
| | **21.0** |  | 1.3 The legs lift evenly. Maximum height maintained at rapid speed, with clear definition of completion and position prior to descent. |
| | |  | |
| 2. The *Vertical Descent* is executed at the same tempo as a *Thrust*. | **14.0** |  | 2. See BM 10 *Vertical Descent*. Speed and accuracy. |

**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.<br>**a) *Half Twist* :** a *Twist* of 180°. | **19.0**<br>**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**<br>**14.0** | b. Full twist | |
| **c) *Twirl* :** a rapid *Twist* of 180°. | **23.0**<br>**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.***

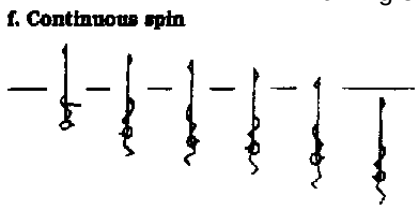
**BM 13 *Spins***

| 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.<br><br>5. Unless otherwise specified, a *descending Spin* is finished with a *Vertical Descent* which is executed at the same tempo as the *Spin.* | | | 4.1 Stability and vertical alignment before, during and at completion of the designated rotation.<br>4.2 Simultaneous rotation and descent of the body, with even drop spaces, to complete the spin as the heels reach the surface.<br>4.3 Amount of rotation on 180˚ and 360˚ *Spins* must be exact. |
| 6.<br>**d) 180° *Spin* :** a *descending Spin* with a rotation of 180˚. | **17.0** (stable)<br>**19.0** (unstable) |  | |
| **e) 360° *Spin* :** a *descending Spin* with a rotation of 360˚. | **19.0** (stable)<br>**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**

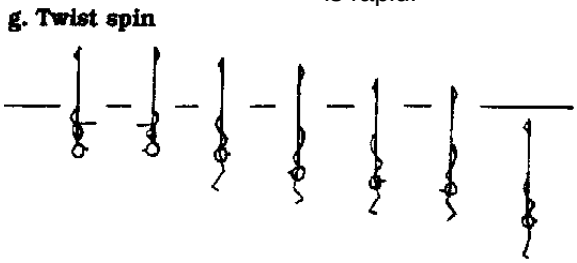
6. f) A *Continuous Spin* must achieve and maintain a fast rotation throughout. Spacing and timing evenly without acceleration.




**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**

6. g) In a *Twist Spin*, the BM 12a *Half Twist* is performed at the same tempo as the root figure. Tempo of BM13f *Continuous Spin* is rapid.




7. An *ascending Spin* begins with the water level at the heels unless otherwise specified.

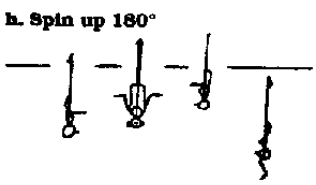
8. A vertical upward *Spin* is executed until a water level is established between the knees and hips.

9. An *ascending Spin* is finished with a *Vertical Descent*.

8.1 Body rises and rotates simultaneously, evenly and at the same tempo as the root figure, unless otherwise specified.
8.2 Designated rotation is completed simultaneously with achievement of maximum height.
8.3 Stability and vertical alignment maintained before, during and at completion of the designated rotation.
8.4 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*.

10.
**h) *Spin Up 180°* :** an *ascending Spin* with a rotation of 180˚.

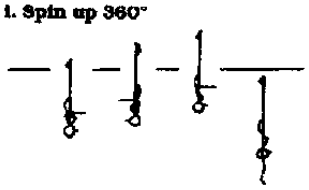
**19.0**
**14.0**




9. See BM 10 *Vertical Descent*. Speed of descent same as that specified for root figure.

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

**20.0**
**14.0**

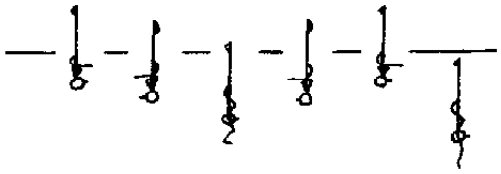


**j) *Combined Spin* :** a *descending Spin* of at least 360˚, followed without a pause by an equal *ascending Spin* in the same direction. The *ascending Spin* reaches the same height where the *descending Spin* started.

**39.0**
**14.0**

10. 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.

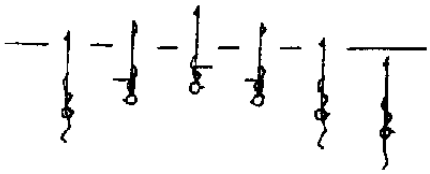
**j. Combined spin**



**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**

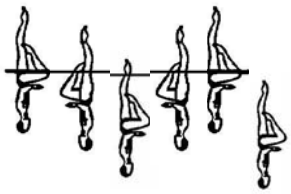
**k. Reverse combined spin**



**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**

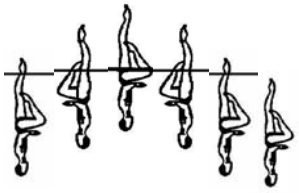
**l. Bent Knee Combined Spin**



**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.

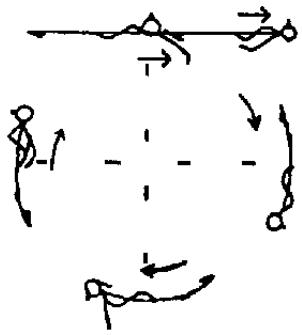
**31.5**

**m. Reverse Bent Knee Combined Spin**



**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**<br>**(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. |

# 3. ANALYSIS OF FINA FIGURES

The figure categories were classified based on the initial transition of the figure.

| | |
|---|---|
| Category I | 100 Airborne |
| Category II | 200 Circular |
| Category III | 300 Rotation Lateral Axis |
| Category IV | 400 Arching |

## 3.1 FINA Handbook APPENDIX IV – CATEGORY I

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

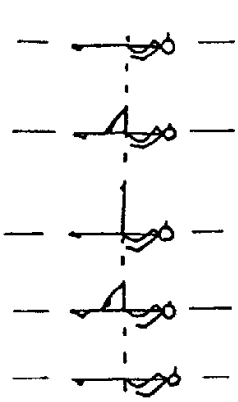
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. *A Ballet Leg is assumed.* | **10.5**<br>**11.0** |  | 1. See BM 1 *To Assume a Ballet Leg.* |
| 2. *The Ballet Leg is lowered.* | **11.0**<br>**10.5** | | 2. See BM 2 *To Lower a Ballet Leg.* |

**Figure 112 – Ibis** **Difficulty – 2.3**

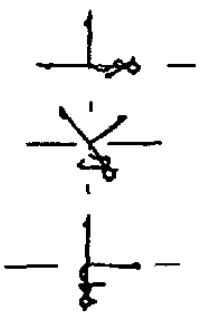
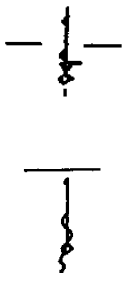
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *Ballet Leg is assumed.* | **10.5**<br>**11.0** |  | 1. See BM 1 *To Assume a Ballet Leg.* |
| 2. Maintaining this position, the body is rotated backward around a lateral axis through the hips to assume a **Fishtail 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 BP 8 **Fishtail Position** simultaneously. |
| 3. The horizontal leg is lifted to a **Vertical Position**. | **18.5** |  | 3. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical 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 *Vertical Descent.* |

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

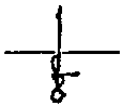
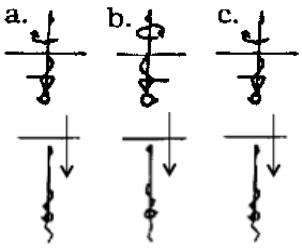
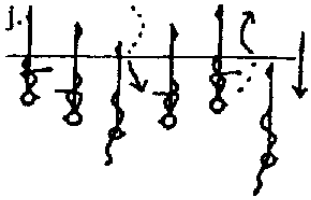
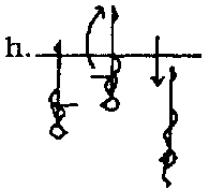
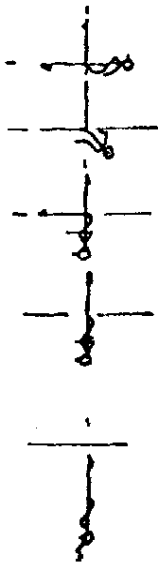
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. An Ibis is executed to **Vertical Position.** | **10.5**<br>**11.0**<br>**26.0**<br>**18.5** |  | 1. Same as Figure 112 Ibis, steps 1 to 3. |
| 2.1 **Figures 112a-c Ibis Twists**<br>The designated *Twist* is executed. | | | 2.1 See BM12 *Twists* and BM10 *Vertical Descent.* |
| **a. 19.0 + 14.0** | |   | a. *Half Twist* |
| **b. 29.0 + 14.0** | | | b. *Full Twist* |
| **c. 23.0 + 14.0** | | | c. *Twirl* |
| 2.2 **Figures 112d-g plus j Ibis Spins**<br>The designated *Spin* is executed. | | | 2.2 See BM 13 *Spins* and BM 10 *Vertical Descent*. |
| **d. 17.0** | | | d. *180° Spin* |
| **e. 19.0** | | | e. *360° Spin* |
| **f. 27.0** | |   | f. *Continuous Spin* |
| **g. 19.0 + 27.0** | | | g. *Twist Spin* |
| **j. 39.0 + 14.0** | | | j. *Combined Spin* |
| 2.3 **Figures 112h-i Ibis Spin Ups**<br>A *Vertical Descent* is executed to heel level.<br><br>The designated *Spin* is executed. | **14.0** | | 2.3 See BM 13 *Spins* and BM 10 *Vertical Descent*. |
| **h. 19.0 + 14.0** | |   | h. *Spin Up 180°* |
| **i. 20.0 + 14.0** | | | i. *Spin Up 360°* |

**Figure 115 – Catalina** **Difficulty – 2.3**

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *Ballet Leg is assumed.* | **10.5**<br>**11.0** |  | 1. See BM 1 *To Assume a Ballet Leg*. |
| 2. A *Catalina Rotation* is executed. | **24.0** | | 2. See BM 7 *Catalina Rotation* and BP 8 **Fishtail Position**. |
| 3. The horizontal leg is lifted to **Vertical Position**. | **18.5** | | 3. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical 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 *Vertical Descent*. |

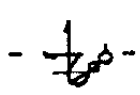
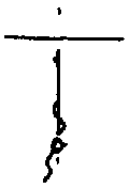
**NOTE:** This figure may be executed with any of the spins or twists added on, as illustrated in Figure 112 Ibis. See FINA Handbook APPENDIX I: BM 12 *Twists*; and BM 13 *Spins*.

**Figure 130 – Flamingo** **Difficulty – 2.5**

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *Ballet Leg is assumed.* | **10.5**<br>**11.0** |  | 1. See BM 1 *To Assume a Ballet Leg*. |
| 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. |
| 5. A *Vertical Descent* is executed. | **14.0** |  | 5. See BM 10 *Vertical Descent*. |

**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**<br>**11.0**<br>**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 14c **Bent Knee Vertical Position**. The bent leg moves simultaneously to the **Bent Knee Vertical Position** as the hips are lifted and the trunk unrolls. The vertical leg remains perpendicular to the surface. All actions simultaneously completed as maximum height is achieved. The **Bent Knee Vertical Position** assumed under, and in the same plane, as the ballet leg of BP 4a **Surface 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 *Vertical Descent*. |

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

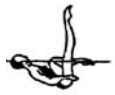
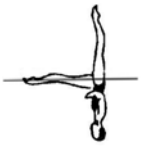
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A Flamingo is executed to a **Surface Flamingo Position**. | **10.5**<br>**11.0**<br>**10.5** |  | 1. Same as Figure 130 Flamingo, steps 1 and 2. |
| 2. As the body unrolls, the bent leg is extended horizontally to assume a **Fishtail Position**. | **22.5** |  | 2. See BP 8 **Fishtail Position**. The bent leg moves horizontally and simultaneously to the **Fishtail Position** as the hips are lifted and the trunk unrolls. The vertical leg remains perpendicular to the surface. All actions completed simultaneously as maximum height is achieved. The **Fishtail Position** assumed under, and in the same place, as the ballet leg of the BP 4a **Surface 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**<br>**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. The thigh of vertical leg remains perpendicular to the surface throughout the movement. BP 14d **Bent Knee Surface Arch 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 Finish Action* is executed. | **11.0** |  | 4. See BP 13 **Surface Arch Position** and BM 5 *Arch to Back Layout Finish Action*. Foot first surfacing action begins as soon as the feet are joined. No pause, but BP 13 **Surface Arch Position** must be evident, but not held, prior to initiation of arch-up action. |

**Figure 150 – Knight** **Difficulty – 3.1**

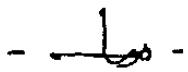
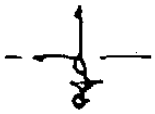
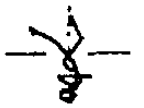
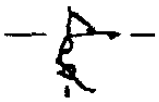
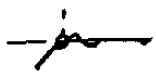
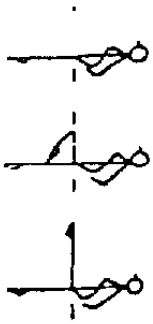
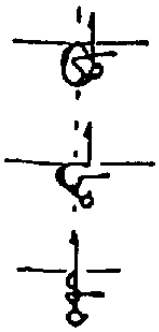
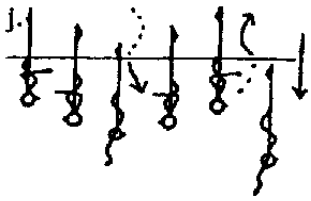
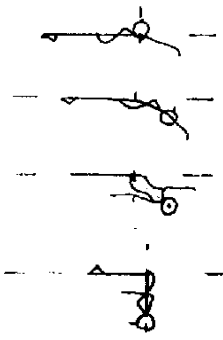
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *Ballet Leg is assumed.* | **10.5**<br>**11.0** |  | 1. See BM 1 *To Assume a Ballet Leg*. |
| 2. Maintaining the position of the legs, the head moves downward as the lower back arches to a **Knight Position.** | **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 *Half Twist*. |
| 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 Finish Action* is executed. | **15.5**<br>**11.0** |  <br>  <br>  | 6. Foot first surfacing action begins as soon as the feet are joined. See BM 5 *Arch to Back Layout Finish Action*. No pause, but BP 13 **Surface Arch Position** must be evident, but not held, prior to initiation of arch-up action. |

**Figure 154 – London** **Difficulty – 2.8**

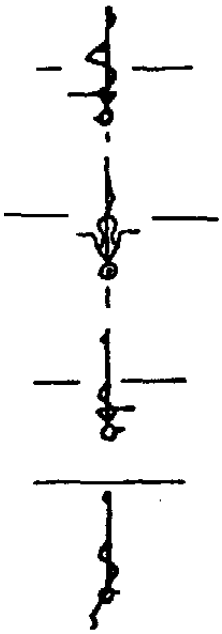
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A rapid *Ballet Leg is assumed* followed by a rapid partial Somersault Back Tuck, as both legs are drawn into a **Tuck Position**, until the shins are perpendicular to the surface. | **10.5**<br>**11.0**<br>**10.0** |  | 1. See BM 1 *To Assume a Ballet Leg*.<br>Obvious quick action must be evident from the start to achievement of BP 9 inverted **Tuck Position**. BP 14b **Bent Knee Back Layout Position** and BP 3a **Surface Ballet Leg Position** clearly defined. |
| 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 the shins. | **23.0** |  | 2. The trunk unrolls, and BP 6 **Vertical Position** and maximum height achieved simultaneously. Stability and control evident prior to initiation of *Combined Spin*. |
| 3. A *Combined Spin of 360°* is executed. | **39.0**<br>**14.0** |  | 3. See BM 13j *Combined Spin*. *Descending Spin* of 360˚, followed without a pause by an equal *ascending Spin* in the same direction. Heights of beginning of the *descending Spin* and finish of the *ascending Spin* are the same. Uniform motion, stability and vertical alignment maintained during *Combined Spin*.<br>See BM 10 *Vertical Descent*. Speed of descent same as *Combined Spin*. |

## 3.2. FINA Handbook APPENDIX IV – CATEGORY II

**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 *Dolphin*. |
| 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 *To assume a Front Pike Position.* 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. BP 14c **Bent Knee Vertical Position** is achieved as the vertical is reached. |
| 4. A *Half Twist* is executed. | **15.5** | | 4. See BM 12a *Half Twist*. |
| 5. The bent knee is extended to **Vertical Position.** | **14.5** | | 5. See BP 6 **Vertical Position**. 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 *Vertical Descent*. |

**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**<br>**16.0**<br>**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**<br>**DD 2.6** | **16.5** | | |
| **240b - Albatross Full Twist**<br>**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**<br>**DD 2.7** | **19.5** | | |
| 3. A *Vertical Descent* is executed. | **14.0** | | 3. See BM 10 *Vertical Descent*. |

## 3.3. FINA Handbook APPENDIX IV - CATEGORY III

**Figure 301 – Barracuda** **Difficulty – 2.0**

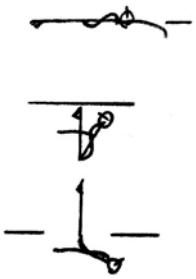
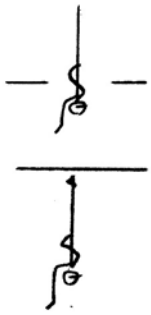
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Back Layout Position**, the legs are raised to vertical as the body is submerged to a **Back Pike Position** with the toes just under the surface. | **13.0** |  | 1. See BP 1 **Back Layout Position** and BP 11 **Back Pike Position.** Smoothly and Simultaneously raising the legs and submerging the body, maintaining back straight and head in line. In the submerged **Back Pike Position**, the hips are directly beneath the position they occupied in **Back Layout Position**. Once established the Back Pike Position, the degree of angle should not change prior to initiation of the unrolling action. |
| 2. A *Thrust* is executed to **Vertical Position.** | **37.0** |  | 2. See BM 9 *Thrust*. Obvious increase in speed. The body unrolls under the legs to assume BP 6 **Vertical Position** along the same perpendicular line established by the legs in the **Back Pike Position**. Maximum height and **Vertical Position** achieved simultaneously, and show full extension of the **Vertical Position** prior to initiation of descent. |
| 3. A *Vertical Descent* is executed at the same tempo as the *Thrust*. | **14.0** | | 3. See BM 10 *Vertical Descent*. Speed and accuracy. |

**Figure 301c – 301i – 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**<br>**37.0** | 1. Same as Figure 301 Barracuda, steps 1 & 2. |
| 2.1 A *Twirl* is executed.<br>2.2 A *Vertical Descent* is executed at the same tempo as the *Thrust.*<br><br>**301c - Barracuda Twirl - DD 2.6** | **35.0***<br><br>**14.0** | 2.1 See BM 12c *Twirl.* Maximum height maintained at rapid speed, with clear definition of completion and position prior to descent.<br>2.2 See BM 10 *Vertical Descent*. Speed and accuracy. |
| 3. The designated *Spin* is performed at the same tempo as the *Thrust* to complete the figure.<br><br>**301d - Barracuda Spinning 180° - DD 2.1**<br>**301e - Barracuda Spinning 360° - DD 2.2**<br>**301f - Barracuda Continuous Spin - DD 2.8**<br><br>**301j - Barracuda Combined Spin - DD 2.8** | <br><br>**19.0**<br>**21.0**<br>**29.0**<br><br>**39.0**<br>**14.0** | 3. See BM 13 *Spins*. 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*. |
| 4.1 A *Vertical Descent* is executed at the same tempo as the *Thrust*, to heel level.<br>4.2 The designated *Ascending Spin* is performed.<br><br>**301h - Barracuda Spin Up 180° - DD 2.3**<br>**301i - Barracuda Spin Up 360° - DD 2.4** | **14.0**<br><br><br>**19.0**<br>**20.0** | 4.1 See BM 10 *Vertical Descent*.<br><br>4.2 See BM 13 *Spins*. Tempo of the *Ascending Spin* is NOT rapid. |
| 4.3 A *Vertical Descent* is performed at the same tempo as the *Thrust.* | **14.0** | 4.3 See BM 10 *Vertical Descent*. |

*additional value due to require maximum airborne weight

**Figure 308 – Barracuda Airborne Split** **Difficulty – 2.8**

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A Barracuda is executed to a submerged **Back Pike Position** with the toes just under the surface. | **13.0** |  | 1. Same as Figure 301 Barracuda, step 1. |
| 2. A *Rocket Split* is executed. | **37.0** |  | 2. See BM 11 Rocket Split. Maximum height and BP 6 Vertical Position achieved simultaneously. See BP 16b Airborne Split Position, full extension of the legs above and parallel to the surface. The legs lift evenly. Maximum height and speed maintained throughout the movement. Clear definition of completion and position prior to descent. |
| | **19.0** |  | |
| | **21.0** |  | |
| | |  | |
| 3. A *Vertical Descent* is executed at the same tempo as the *Thrust*. | **14.0** |  | 3. See BM 10 *Vertical Descent*. Speed and accuracy. |

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

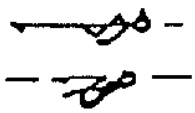
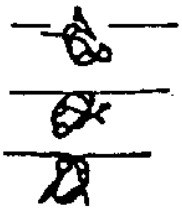
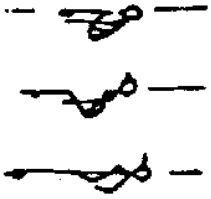
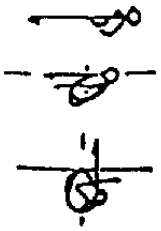
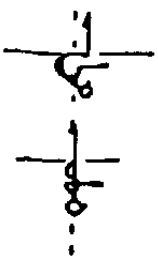
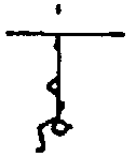
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Back Layout Position**, the knees are drawn along the surface to assume a **Tuck Position**. | **4.0** |  | 1. See BP 1 **Back Layout** and BP 9 **Tuck Positions**. Legs are drawn to the body to assume a tight **Tuck Position** at the position occupied by the trunk in **Back Layout Position**. Once started, continuous motion is desirable until the finishing **Back Layout Position** 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 Position.** |

**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**<br>**10.0** |  | 1. Same as Figure 310 Somersault Back Tuck, steps 1& 2. Continuous motion from initiation of knee draw to achievement of inverted BP 9 **Tuck Position**. |
| 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 the 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 *Vertical Descent*. |

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

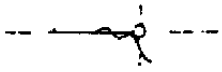
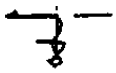
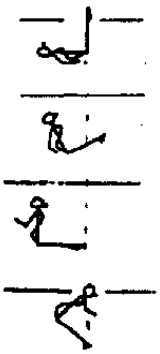
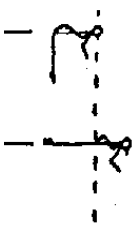
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, a *Front Pike Position is assumed.* | **12.0** |  | 1. See BM 3 *To assume a Front Pike Position*. |
| 2. Followed by *Front Pike Position to Assume a Submerged Ballet Leg Double Position,* | **12.0** |  | 2. See BM 4 *A Front Pike Position to Assume a Submerged Ballet Leg Double Position*. |
| 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**<br>**+**<br>**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 325 – Jupiter** **Difficulty – 2.8**

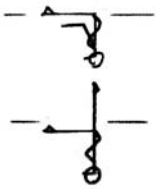
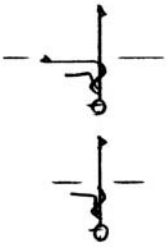
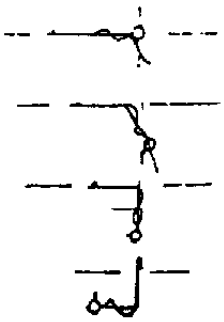
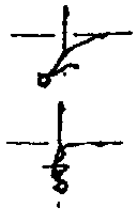
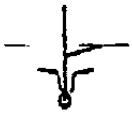
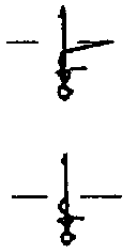
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position,** *a Front Pike Positions assumed*. | **12.0** |  | 1. See BM 3 *To assume a Front Pike Position*. |
| 2. One leg is lifted to a **Fishtail Position**. | **13.5** |  | 2. See BP 8 **Fishtail Position**. Height and vertical alignment of trunk maintained. Stability and control evident. |
| 3. Maintaining the 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 **Knight Position**. Height and vertical alignment of trunk maintained. Stability and control evident. Height constant with hips as pivot point during steps from steps 2 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 **Fishtail Position**. 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. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical leg maintaining their vertical alignment. Stability in BP 6 **Vertical Position** evident prior to descent. |
| 6. A *Vertical Descent* is executed. | **14.0** | | 6. See BM 10 *Vertical Descent*. |

**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 Somersault Front Pike, steps 1& 2. |
| 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** |  | 3. See BP 8 **Fishtail Position**. Height constant. Horizontal and vertical legs maintain alignment during rotation. |
| 4. The horizontal leg is lifted to **Vertical Position**. | **18.5** |  | 4. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical leg maintaining their vertical alignment. Stability in BP 6 **Vertical Position** evident prior to descent. |
| 5. A *Vertical Descent* is executed. | **14.0** |  | 5. See BM 10 *Vertical Descent*. |

**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 342 – Heron** **Difficulty – 2.1**

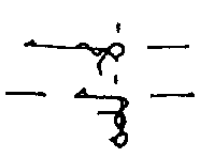
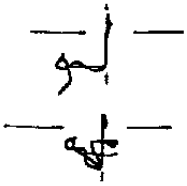
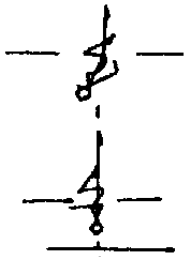
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position** a Somersault Front Pike is executed to a **Submerged Ballet Leg Double Position**. | **12.0** |  | 1. Same as Figure 320 Somersault Front Pike, steps 1 & 2. |
| 2. One leg is bent with the shin parallel to the surface and the mid-calf opposite the vertical leg, as the trunk moves toward the legs. | **12.0**<br>**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. BP 14c **Bent Knee Vertical** 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 *Vertical Descent*. BP 14c **Bent Knee Vertical Position** maintained throughout. Speed and accuracy. |

**Figure 343 – Butterfly** **Difficulty – 2.9**

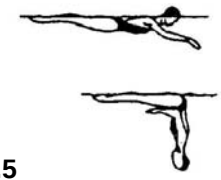
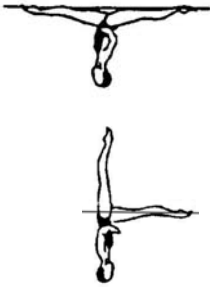
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, a *Front Pike Position is assumed*. | **12.0** |  | 1. See BM 3 *To Assume a Front Pike Position*. |
| 2. One leg is lifted to a **Fishtail Position**. | **13.5** |  | 2.See BP 8 **Fishtail Position**. Height and vertical alignment of trunk maintained. Stability and control evident. |
| 3. The horizontal leg is rapidly lifted through an arc of 180° as the vertical leg is lowered to assume a **Split Position**, without hesitating a hip rotation of 180° is executed as the front leg is raised to assume a **Fishtail Position**. | **28.0**<br>**27.5** |  | 3. See BP 16 **Split Position** and BP 8 **Fishtail Position**. Sharp increase in speed. Both legs start BP 8 **Fishtail Position** and achieve BP 16 **Split Position** simultaneously. Foot of stationary leg remains at surface during 180° rotation. Trunk maintains its vertical alignment, with hips and shoulders 'square'. |
| 4. The horizontal leg is lifted to a **Vertical Position** at the same tempo as the initial actions of the figure. | **18.5** |  | 4. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical leg maintaining their vertical alignment. Stability in BP 6 **Vertical Position** evident prior to descent. The tempo of join and descent are uniform but not rapid. |
| 5. A *Vertical Descent* is executed. | **14.0** |  | 5. See BM 10 *Vertical Descent*. |

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

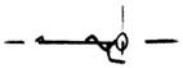
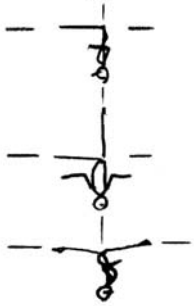
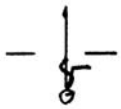
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, a *Front Pike Position is assumed*. | **12.0** |  | 1. See BM 3 *To Assume a Front Pike Position*. |
| 2. One leg is lifted to vertical as the body rotates 90° on its longitudinal 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 *Vertical Descent*. |

**Figure 349 – Tower** **Difficulty – 1.9**

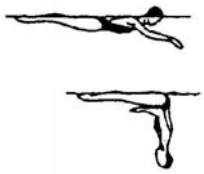
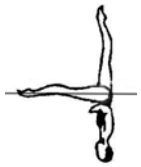
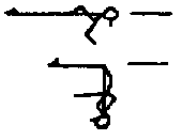
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, a *Front Pike Position is assumed*. | **12.0** |  | 1. See BM 3 *To Assume a Front Pike Position*. |
| 2. One leg is lifted to a **Fishtail Position**. | **13.5** |  | 2.See BP 8 **Fishtail Position**. Height and vertical alignment of trunk maintained. Stability and control evident. |
| 3. The horizontal leg is lifted to a **Vertical Position**. | **18.5** |  | 3. See BP 6 **Vertical Position**. Height constant as legs join, with the trunk and vertical 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 *Vertical Descent*. |

**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 BM 3 *To Assume a Front Pike Position*. |
| 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 *Vertical Descent*. |

**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**

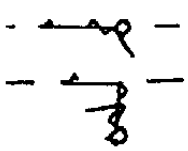
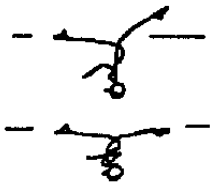
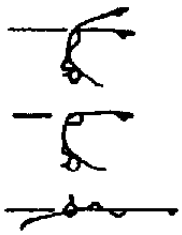
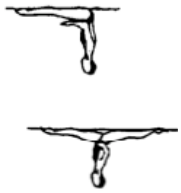
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, a *Front Pike Position is assumed*. | **12.0** |  | 1. See BM 3 *To Assume a Front Pike Position*. |
| 2. One leg is lifted in a 180° arc over the surface to **Split Position**. | **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**<br>**11.0** |  | 3. See BM 6a *Walkout Front.* |

**Figure 362 – Surface Prawn** **Difficulty – 1.4**

| 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 *To Assume a Front Pike Position*. |
| 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 *Vertical Descent* is executed. | **0.0** |  | 4. See BM 10 *Vertical Descent*. |

## 3.4. FINA Handbook APPENDIX IV - CATEGORY IV

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

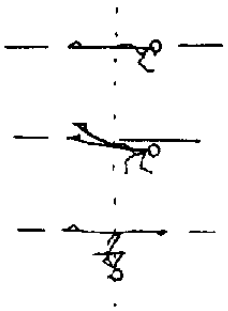
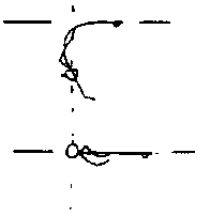
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. From a **Front Layout Position**, the back arches as one leg is lifted in a 180˚ arc over the surface to a **Split Position.** | **30.0** |  | 1. See BP 2 **Front Layout Position**. Simultaneous lift of leg and descent 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 reaches at the surface. 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**<br>**11.0** |  | 2. See BM 6a *Walkout Front*. |

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

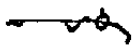
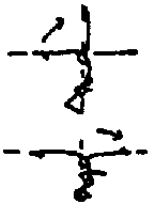
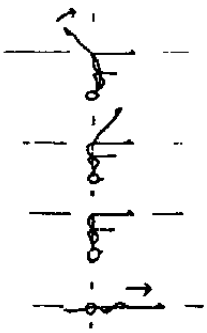
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. With the head leading, a *Dolphin* is initiated. | |  | 1. BM 14 *Dolphin* continues until the hips are about to submerge. |
| 2. The hips, legs and feet continue to move along the surface as the back is arched more 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 *Walkout Back* is executed. | **18.0**<br>**9.0** |  | 4. See BM 6b *Walkout Back*. |

**Figure 423 – Ariana** **Difficulty – 2.2**

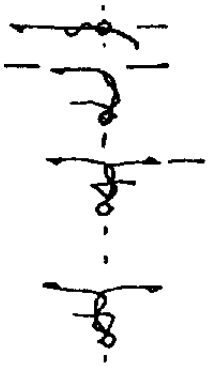
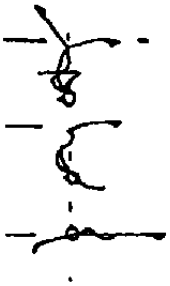
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A Walkover Back is executed to a **Split Position**. | **16.0**<br>**21.0** |  | 1. Same as Figure 420 Walkover Back, steps1 to 3. |
| 2. Maintaining the relative position of the legs to the surface, hips rotate 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**<br>**11.0** |  | 3. See BM 6a *Walkout Front*. |

**Figure 435 – Nova** **Difficulty – 2.3**

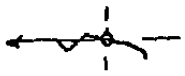
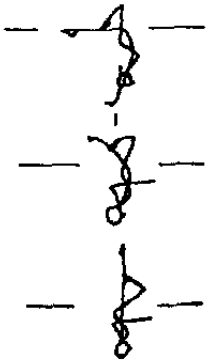
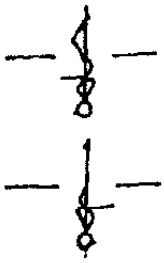
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. With the head leading, a *Dolphin* is initiated until the hips are about to submerge. | |  | 1. See BM 14 *Dolphin*. |
| 2. The hips, legs and feet continue to move along the surface as the back is arched more as one knee is bent to assume **Bent Knee Surface Arch Position.** | **19.5** |  | 2. Continuous uniform movement BP 1 **Back Layout Position** to BP14d **Bent Knee Surface Arch Position**. Hip height constant. Both hip joints on a horizontal line. |
| 3. The legs are lifted to a **Bent Knee Vertical Position**. | **21.0** |  | 3. See BP 14c **Bent Knee Vertical Position**. 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 12b *Full Twist*. 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 BP 6 **Vertical Position** and BM 10 *Vertical Descent*. |

**Figure 436 – Cyclone** **Difficulty – 2.7**

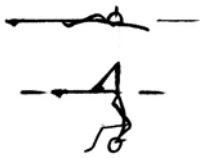
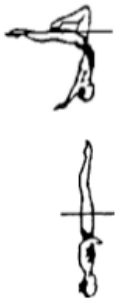
| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A Nova is executed to a **Bent Knee Surface Arch Position**. | **19.5** |  | 1. Same as Figure 435 Nova, steps 1 and 2. Continuous uniform movement BP 1 **Back Layout Position** to BP14d **Bent Knee Surface Arch Position**. 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 **Vertical Position** and BM 12c *Twirl*. 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 12a *Half Twist*. |
| 4. *A Vertical Descent is executed.* | **14.0** | | 4. See BM 10 *Vertical Descent*. |

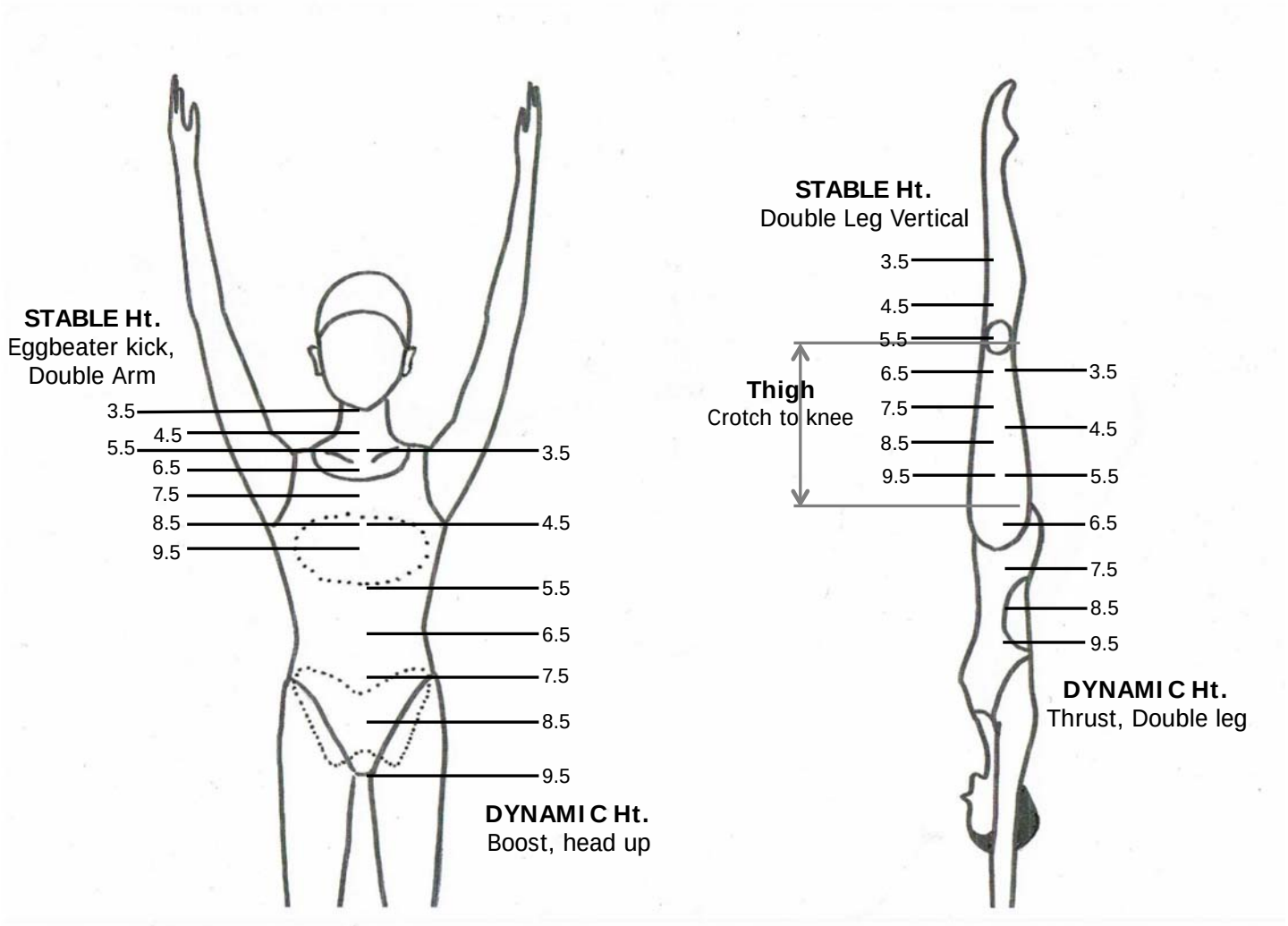
**Figure 439 – Oceanita** **Difficulty – 1.9**

| Rule Book Description | NV | Diagrams | Major Desired Actions |
|---|---|---|---|
| 1. A *Nova* is executed to a **Bent Knee Surface Arch Position.** | **19.5** |  | 1. Same as Figure 435 Nova, steps 1 and 2. |
| 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 *Vertical Descent* is executed. | **14.0** |  | 3. See BM 10 *Vertical Descent*. |

# 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** | **Vertical Double Leg** | Upper thigh | Upper mid thigh | Low thigh (Well above knee cap) | Above knee cap | Knee cap | Below knee cap | Well below knee cap (mid shin) |
| | **Vertical Bent Knee** | Crotch level | Upper thigh | Mid thigh | Low thigh (Well above knee cap) | Above knee cap | Knee cap | Below knee cap |
| | **Fishtail** | Back of horizontal leg dry | Upper thigh | Mid thigh | Low thigh (Well above knee cap) | Above knee cap | Knee cap | Below knee cap |
| | **Ballet Leg Single** | At top of thigh | Upper thigh | Mid thigh | Low thigh (Well above knee cap) | Above knee cap | Knee cap | Below knee cap |
| | **Ballet Leg Double** | Upper thigh | Mid thigh | Low thigh | Above knee cap | Knee cap | Below knee cap | Well below knee cap (mid shin) |
| | **Eggbeater Kick Double Arm** | Mid bust | Arm pit dry | Upper bust | Showing collar bone | Showing shoulder | Mid neck | Chin |
| | **Eggbeater Kick Single Arm** | Bust above surface | Mid bust | Arm pit dry | Upper bust | Showing collar bone | Showing shoulder | Mid neck |
| **Dynamic Height** | **Thrust, Double Leg** | Lower ribs or higher | Waist | Top of pelvis | Showing crotch | Upper thigh | Mid thigh | Above knee cap |
| | **Thrust, Single Leg** | Mid ribs | Lower ribs | Waist | Top of pelvis | Showing crotch | Upper thigh | Mid thigh |
| | **Rocket Split, Airborne Split** | Lower ribs or higher | Waist | Top of pelvis | Showing crotch | Upper thigh | Mid thigh | Above knee cap |
| | **Boost (head up)** | Crotch level or higher | Mid pelvis | Top of pelvis | Waist | Lower ribs | Arm pit | Showing shoulder |

## GUIDING SCALE FOR HEIGHT



# 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, Free Routines, Free Combination and Highlight Routine including ten (10) seconds for deck movement.

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

**SS 14.1.7** In routine events the walk on of the competitors from the designated starting point to achievement of a stationary position(s) 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 18.2.3** A one (1) point penalty shall be deducted from the routine score if:

If the time limit of 30 seconds for the deck walk-on is exceeded.

**SS 18.2.8** A two (2) point penalty shall be deducted from the routine score if:

during the deck movements in routines competitors are executing stacks, towers or human pyramids.

**SS 13.12** In routines, during the deck movements, competitor(s) shall not execute stacks, towers or human pyramids.

## 2. GUIDELINES FOR ROUTINE SWIMWEAR

**GR 5** Swimwear

**GR 5.1** The swimwear (swimsuit, cap and goggles) of all competitors shall be in good moral taste and suitable for the individual sports discipline and not to carry any symbol which may be considered offensive.

**GR 5.2** All swimsuits shall be non-transparent.

**GR 5.3** The referee of a competition has the authority to exclude any competitor whose swimsuit or body symbols do not comply with this Rule.

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.

**SS 13.9** The use of accessory equipment, goggles or additional clothing is not permitted unless required by medical reasons.

**SS 13.10** Nose clips or plugs may be worn.

**SS 13.11** Jewellery may not be worn in Figures or Routines. For FINA Synchronized Swimming World Trophy, see BL 11.4.2

**SS 13.13** In routines swimwear must conform to GR5 and SS 13.8-13.11. In the event that the referee thinks the competitor(s) swimwear does not conform, the competitor will not be permitted to compete until changing into appropriate swimwear.

**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, additional adornment, or added features which are not part of the actual suit. Such things as overskirts, aprons, fringes, tassels, etc. are undesirable.

Headpieces should be neat, 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

**SS13.8** Theatrical make-up shall not be worn. Straight make-up that provides a natural, clean and healthy glow is acceptable.

- 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 (sound level) 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** Team Managers / Coaches are responsible for labeling three individual discs for each routine as to speed, name of the competitor and national federation. The deadline for receiving the discs is 15 days prior to the start of practice sessions. If the deadline is respected, the Sound Center Manager is entirely responsible for correct execution of the music. In all other circumstances if the sound reproduction is not working, the Team Manager is entitled to bring immediately two additional discs of the music. If the two additional discs fail again, the competitor is disqualified.

Here are some additional recommended guidelines:

1. The time of each routine must be listed on each disc.
2. The lead-in time for each routine should not exceed 5 seconds.
3. Each disc 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 JUDGEMENT 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 recognizable | 1.9 – 0.1 |
| Completely failed | 0 |

**SS 17.2** In Free Routine, Free Combination and Highlight Routine each judge shall award one score, from 0 – 10 points each (see SS 17.1). Execution panel judges shall award one score for Execution and Synchronisation. Artistic Impression panel judges shall award one score for Choreography, Music Interpretation, and Manner of Presentation. Difficulty panel judges shall award a score for Difficulty.

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

**SS 17.2.1** First panel – EXECUTION Score - 30%
Consider:

| | Solo | Duet | Team<br>Free Combination<br>Highlight Routine |
|---|---|---|---|
| EXECUTION – the level of excellence in performing highly specialised skills. Execution of all movements. | 90% | 50% | 50% |
| SYNCHRONISATION - the precision of movement in unison, one with the other, and the accompaniment above, at and below the surface. Synchronisation of timing of one with another and with music. | 10% | 50% | 50% |

**SS 17.2.2** Second panel – ARTISTIC IMPRESSION Score - 40%

Consider:

| | Solo | Duet | Team<br>Free Combination<br>Highlight Routine |
|---|---|---|---|
| CHOREOGRAPHY - the creative skill of composing a routine that combines artistic and technical elements. The design and weaving together of variety and creativity of all movements. | 100% | 100% | 100% |
| MUSIC INTERPRETATION - expressing the mood of the music, use of the music's structure. | | | |
| MANNER OF PRESENTATION - the manner in which the swimmer(s) present(s) the routine to the viewers. The total command of the performance of the routine. | | | |

**SS 17.2.3** Third panel – DIFFICULTY Score - 30%

Consider:

| | Solo | Duet | Team<br>Free Combination<br>Highlight Routine |
|---|---|---|---|
| DIFFICULTY – the quality of being hard to achieve. Difficulty of all movements and of synchronization. | 100% | 100% | 100% |

| | Execution | | Difficulty |
|---|---|---|---|
| | **Execution** | **Synchronisation** | |
| **Perfect: 10** | | | |
| **Strokes, Propulsion** | Maximum height, extension, fluidity and power in all parts of the routine. Whole body used in execution of strokes. Head first boosts crotch height. Angles perfectly matched. | Totally synchronised with the music and each other. Absolute precision throughout. | Sustained height with max. weight out of water, extreme flexibility, power. |
| **Figures/ Hybrids** | Maximum height, extension, accurate angles perfectly matched. | Totally synchronised in all aspects. Absolute precision throughout. | Sustained max. height, max. dynamic height, complex angles and combinations. Difficulty throughout routine. High risk. |
| **Transitions** | Powerful and efficient. Maximum distance covered. | Totally synchronised in all aspects. Absolute precision throughout. | Max. power in all transitions. |
| **Patterns** | Clear, accurate, even spacing between swimmers. | Totally synchronised in all aspects. Absolute precision throughout. | Complex, intricate patterns with frequent changes. Blind patterns. Very close spacing. Intricate synchronization. |
| **Highlights** | Throws: maximum height Clean entries. Platforms: High, stable. | Swimmers totally synchronised to affect maximum height and power and to allow efficient minimum recovery time. | High risk. Short set up and recovery time. Complex actions in air or on the platform or in other highlights choreographed entries into water. |
| **Near Perfect: 9.5 to 9.9** | | | |
| **Strokes, Propulsion** | Near maximum height. Extension, fluidity and power in all parts of the routine. Effort is not apparent. Head first boosts crotch height. | Almost flawless. Minor errors. | Sustained near max. height. Near perfect flexibility. Less power shown. |
| **Figures/ Hybrids** | Near maximum height in all figures and hybrids. | Almost flawless. Minute errors/deviations that are only apparent to the 'trained' eye. | Sustained near max. height and dynamic height showing less flexibility and range of movement. Difficulty may be spread and |

| | | | |
|---|---|---|---|
| | | | high risk movements shown. |
| **Transitions** | Power and control demonstrated but may cover less distance. | Almost flawless. Minor errors. | Less power and efficiency demonstrated. |
| **Patterns** | Minute errors in pattern formations and changes. | Transition in and out of transitions perfectly achieved. | Complex pattern changes. Frequent changes. Close patterns. Intricate synchronization. |
| **Highlights** | Throws: near maximum height. Clean entries. Platforms: High, stable. Accurate throughout movement. Other highlights accurate, and clearly defined. | Swimmers totally synchronised to affect near maximum height and power and to allow efficient minimum recovery time. Perfectly synchronised with music. | Some high risk. Short set up and recovery time. Complex actions in air or on the platform or in other highlights. Choreographed entries into water. |
| **Excellent: 9.0 to 9.4** | | | |
| **Strokes, Propulsion** | Strong, powerful high. Less distance travelled and power shown. Head first boots mid pelvis. | A very few minor errors scattered throughout. | Fewer maximum height/weight arm actions. Extreme flexibility or complexity may be missing. |
| **Figures/ Hybrids** | Strong, high sustained height well above mid-thigh and dynamic height above waist. Excellent extension. | A very few minor errors scattered throughout. | Most aspects of higher scores still present but may lack some complexity or pool coverage. |
| **Transitions** | Strong and powerful. | Very minor errors, surfacing may be minutely different. | Less power and efficiency demonstrated. |
| **Patterns** | Patterns mainly accurate with minor lapses in shape. Spacing usually excellent. | Minor errors in achieving timing into patterns. | Complex pattern changes. Less frequent changes. Intricate synchronisation. |
| **Highlights** | Throws: near maximum height. Clean entries. Platforms: High, stable. Accurate throughout movement. Other highlights accurate, powerful and exact design. | Swimmers synchronised to affect near maximum height and power and to allow efficient very fast recovery time. | Some high risk. Short set up and recovery time. Less complex actions in air or on the platform or in other highlights Choreographed entries. |

| | | | |
|---|---|---|---|
| **Very Good: 8.0 to 8.9** | | | |
| **Strokes, Propulsion** | Propulsion generally effective. Arm pits dry in double arm eggbeater and waist height in head first boosts. Some instability but body used in arm actions. | Minor errors. Angles may not be exactly the same but demonstrating only minor changes. All synchronised with music. | Fewer difficult complex actions but still showing sustained height. Use of the complex changes in the music. |
| **Figures/ Hybrids** | Sustained height at upper thigh. Very good extension through limbs and body. | Minor errors. Angles may not be exactly the same but demonstrating only minor changes. With music. | Fewer difficult complex actions but still showing sustained height, complex actions. |
| **Transitions** | Strong and powerful. | Minor errors, surfacing may be minutely different. | Less power and efficiency demonstrated. |
| **Patterns** | All patterns clear and mainly precise, small deviations in patterning. | Few errors in getting into and out of patterns. | Less pool coverage but still frequent pattern changes. Surface and underwater transitions. |
| **Highlights** | Throws and platforms high, stable and convincing. | Synchronised with music or swimmers working as a group to affect effective highlights. Very good timing with highlights in music. | Few high risk movements spread throughout. |
| **Good: 7.0 to 7.9** | | | |
| **Strokes, Propulsion** | Double arm height at upper bust line, strong propulsion. Extension in arms. Angles generally precise. | Few obvious errors but lacks crispness and precision. Well synchronised with music. | Double and single arm eggbeater shown. Use of both beat and rhythm of music. May be a rest spot within the routine. |
| **Figures/ Hybrids** | Generally clearly defined and accurate. Some height instability and differences between team swimmers. Good extension throughout. | Few obvious errors but lacks crispness and precision. | All basic actions demonstrated. Sustained height scattered throughout routine. Most difficulty may be at beginning of routine. |
| **Transitions** | Lack strong power and may be pauses between actions. | Well synchronised but minor errors in finishing and starting actions. | Basic actions to transfer between movements. |

| | | | |
|---|---|---|---|
| **Patterns** | Most patterns clear and precise. | Some obvious errors in achieving patterns. | Les complex changes but still showing constant change. |
| **Highlights** | Highlights all work. | Highlights generally synchronised with music. Not all swimmers synchronised to highlight may fall or not be evenly executed. | Medium height in highlights. Stable movements with medium level risk. |
| **Competent 6.0 to 6.9** | | | |
| **Strokes, Propulsion** | All strokes/arm actions clear precise showing basic power but may include some rest spots. May be on one side of pool. | Minor errors throughout. One or two swimmers may be 'out'. Lacks sharpness. | Double and single double arm height with collar bones dry. Less pool coverage. Movements generally use the major beats. |
| **Figures/ Hybrids** | All positions clearly defined showing extension. Minor deviations is actions such as twists and spins. Angles may be slightly different. | Minor errors throughout. One or two swimmers may be 'out'. Lacks sharpness. Surfacing may be at different times. | Double and single leg height demonstrated throughout. Hybrids shorter. Some complexity in combination hybrids. |
| **Transitions** | Pauses between actions. | Synchronised with the music. Minor errors between swimmers. | Simple transitions but allowing flow between actions. |
| **Patterns** | Patterns not all clear with patterns not very accurate and spacing uneven. | Transition into and out of patterns not clear. Lack precision. | Variety in patterns but allowing time for visual checks. |
| **Highlights** | Highlights generally work but lack dynamism and excitement. | Not all swimmers working equally to achieve the desired action. | Safe highlights. |
| **Satisfactory 5.0 to 5.9** | | | |
| **Strokes, Propulsion** | Strokes ill defined and angles inaccurate. Little propulsion and routine stuck in one area of the pool. | Some moderate or major errors. Timing blurred and movements lacking precision. No attempt to synchronise underwater. | Short simple double arm actions, easy stroke combinations. |

| | | | |
|---|---|---|---|
| **Figures/ Hybrids** | Positions are all clear but not totally accurate by all the swimmers. Extension erratic. Angles may show differences. Double leg height at knees. Execution quality is erratic. | Some moderate or major errors. Timing blurred and movements lacking precision. | Shorter simpler hybrids mainly single leg but attempts at double legs, spins and twist. Often lacking control therefore lowering difficulty. |
| **Transitions** | Little continuity in actions. | Blurring before movements and little relationship to music. | Transitions basic not allowing flow. |
| **Patterns** | Patterns not clear, scrambled and inefficient. Surface pattern changes messy and slow. | Pattern changes unsynchronised so swimmers attaining them and leaving them at slightly different times. | Easy pattern changes. Lots of time to check patterns. Mainly underwater pattern changes. |
| **Highlights** | Highlights attempted but low and unstable. Throws attempted but low over water. Lack clarity of definition. | Poorly synchronised so they may appear very inaccurately executed. | Highlights present mainly stable and safe. Throws may be attempted but low. |
| **Deficient: 4.0 to 4.9** | | | |
| **Strokes, Propulsion** | Limited propulsion and routine gets stuck in one part of pool. May be limited to one side of the pool. Arm actions similar but lack definition. | Major synchronisation errors in stroke actions. Propulsion different so positions are constantly lost. | Basis stroke combinations. Double and single arm eggbeater may be attempted. |
| **Figures/ Hybrids** | Body and limb positions showing major problems. Inaccurate design and often unclear to judges of precise design. Height below the knee and very inconsistent between swimmers. Poor extension. | Attempts to synchronise but major errors throughout. Little synchronisation other than with the obvious beat of music. | Single and double leg actions may be demonstrated but their height and precision are uncontrolled. |
| **Transitions** | Poor flow between actions. Movements not finished. | Little relationship with the music or with each other. Swimmers may be moving in totally different ways. | Simple transitions. |

| | | | |
|---|---|---|---|
| **Patterns** | Patterns spread out and often unclear. One or more swimmers may be out. | Patterns are unclear. Very poor attempt to synchronise transitions in and out of patterns. | Simple patterns, few pattern changes and held for a long time. |
| **Highlights** | Highlight attempted but very, very low and/or unstable. | Movements unsynchronised so the highlights unsuccessful. | Simple highlights attempted. These may be floating pattern changes. |
| **Weak: 3.0 to 3.9** | | | |
| **Strokes, Propulsion** | Major differences in arm actions. Angles very different. | Timing of all actions different. There is an attempt to synchronise but seldom together. Basic synchronisation with music. | Simple strokes and propulsive techniques. Little power and pool coverage. |
| **Figures/ Hybrids** | Most positions lack definition. Very little extension. Vertical height well below knee height and erratic and unstable. Very different heights and bobbing up and down. | Timing of all actions different. There is an attempt to synchronise but seldom together. | Single leg actions that are low. Very short figures, bent knee positions, somersaults and ballet legs. |
| **Transitions** | Unclear, messy. | Little synchronisation between other swimmers or with the music. | Basic actions only. |
| **Patterns** | Patterns unclear, spread out. Messy. | Little synchronisation into and out of patterns. | Simple. |
| **Highlights** | Highlights very unstable or do not work. | Highlights attempt to synchronise with music but little synchronisation between swimmers. | Some highlights attempted. |
| **Very weak: 2.0 to 2.9** | | | |
| **Strokes, Propulsion** | Very low, swimming skills very weak not allowing propulsion. | Very little or no synchronisation between the swimmers and basic synchronisation with the music. | Basic strokes. Little propulsion and pool coverage. |

| | | | |
|---|---|---|---|
| **Figures/ Hybrids** | All positions poorly defined. Extension totally lacking. | Very little or no synchronisation between the swimmers. | Surface figures, and basic somersaults. Mainly floating actions. |
| **Transitions** | Gaps in transitions. Little control over legs and arms. | Poor synchronisation into and out of movements. | Simple transitions. One movement finishing and a pause before the next starting. Lots of layouts. |
| **Patterns** | Generally unrecognizable. | Little or no synchronisation into or out of pattern. | Basic patterns that are held for a very long time. Few pattern changes. |
| **Highlights** | Very messy and unclear. | Little or no synchronisation into. | Attempts at very simple highlights, usually floating patterns. |
| **Hardly recognisable: 0.1 to 1.9** | | | |
| **Strokes, Propulsion** | Lacking any precision is basic strokes. | Very little or no attempt to synchronise with music or each other. | Simple strokes and sculls. Very little pool coverage. |
| **Figures/ Hybrids** | Lacking all technical skill so movements hardly recognizable. | Very little or no attempt to synchronise with music or each other. | Very little content. Mainly floating patterns. |
| **Transitions** | Transitions very different, no precision. | Very little or no attempt to synchronise with music or each other. Bobbing up throughout. | Big gaps between actions. Simple changes between actions. |
| **Patterns** | Patterns have been choreographed but swimmers basically swimming their own thing. | Patterns hardly recognisable and swimmers mowing in and out at any time. | Simple patterns that are maintained for a very long time. Very few pattern changes. |
| **Highlights** | If present hardly recognisable except of at surface. | Very little or no attempt to synchronise with music or each other. | Very simple floats may be attempted. |

| Artistic Impression | | |
|---|---|---|
| **Choreography** | **Music Interpretation** | **Manner of Presentation** |
| **Perfect: 10** | | |
| Captivating and creative. Cohesive whole with logical structure with blends variety all actions, creativity demonstrating memorable moments, a balanced mix of strokes, hybrids and highlights. Many patterns demonstrating logical and fluid pattern changes. All areas of pool covered. | Totally at one with the music. Movements obviously require this music. Perfect blend of qualities within the music the movement qualities Swimmers make use of both the obvious and subtle qualities in the music and take advantage of all the musical elements to achieve an emotional impact. | Total command, compelling attention. Projects personality and involves the audience in the feeling of the routine. Charismatic. Each performance appears fresh. |
| **Near Perfect: 9.5 to 9.9** | | |
| Memorable routine showing near perfect variety in all movements, near perfection in the balance of movements within the routine. All areas of the pool covered. A high level of pattern changes demonstrating logical flow . | Near perfect use of all the qualities within the music. Expressive interpretation with actions convincingly suiting the mood and subtle qualities within the music. | Captivating. It is unique to these swimmers. Strong emotional impact. |
| **Excellent: 9.0 to 9.4** | | |
| Impressive routine. All components are present and well designed but may lack uniqueness or complete overall cohesion. May not explore totally all the areas around the body.<br>Highlights well balanced within the routine demonstrating a range of techniques. Patterns changes demonstrate logical flow but few areas of the pool may be missed. | Uses most of the qualities within the music. Timing and strength of movement reflect those within the music but there may be minor lapses. Highlights match the highlights in music. | Confident and appealing. Explore the mood/theme through expression in whole body including face. There may be minor lapses in focus by some swimmers. |
| **Very Good: 8.0 to 8.9** | | |
| Strong choreography using very good range of creativity in strokes/figures and hybrids. Creative moments but not maintained throughout. Elements may be poorly placed or routine unbalanced. Pattern changes frequent but flow may not be maintained. | Movements match mood and pace. Expresses most musical qualities but may miss minor opportunities. Very good use of the obvious accents. | Confident but body language not expressed through whole body and limited to face, head and arms. Occasional lack of focus or not exploiting every opportunity to gain attention. |

| | | |
|---|---|---|
| **Good: 7.0 to 7.9** | | |
| Some creative moments. Highlights used. Variety in strokes/figures and hybrids but standard not using all areas around the body. Pool coverage may miss some areas. Pattern changes frequent but predictable. | Explores the use of both melody and rhythm. Generally fits the music. Attempts to explore the theme or mood. | Some command but may lack physical and/or emotional energy. Lack of precision in all movements affects the presentation. |
| **Competent 6.0 to 6.9** | | |
| Predicable and ordinary. Some variety in strokes/figures hybrid but lacking originality and creativity. Patterns change but predicable changes and limited in number. | Uses the obvious rhythm or melody. Highlights using obvious highlights in music. Some attempt to project mood or theme. | Swimmers may attempt to make eye contact and communicate with judge but this tends to be erratic and may not be present in all swimmers. |
| **Satisfactory 5.0 to 5.9** | | |
| Mostly standard actions. Attempt to interpret a theme. Some variety in strokes, figures and hybrids. More pattern changes but lacking any creativity or originality. Repetitious. Unbalanced and limited pool coverage. | Uses the obvious beats of the music. Predictable actions for easy to use accents. Attempts to place highlights with appropriate sections of the music. | Little effort to project. May have a smile but routine messy. |
| **Deficient: 4.0 to 4.9** | | |
| Very limited variety of strokes, figures and hybrids. Simple basic actions with obvious transitions between movements and between patterns. Often not a logical flow to the pattern transitions. Very limited pool coverage. | Uses the obvious beat of the music but all other characteristics ignored. May place highlights in inappropriate music. | Lacking any presence. Swimmers may appear scared or generally disinterested in the audience. Lack of quality of movement. |
| **Weak: 3.0 to 3.9** | | |
| Very basic choreography with simple repetitive actions linked by strokes or other propulsive techniques. Lacking flow between movements. Limited pool coverage. | Attempts to use the music. Only the simplest beat used. Mostly background. | Major attention is between the swimmers. Movements may be messy and disorganised appearing totally under trained. |
| **Very weak: 2.0 to 2.9** | | |
| Little evidence of any structure within the routine. Very limited variety in strokes and figures. Minimal pool coverage. | No interpretation of the music. Any music could be used. | No attempt at presentation. Routine messy. Totally inward focused and oblivious to audience or judges. |

| **Hardly recognisable: 0.1 to 1.9** | | |
|---|---|---|
| No variety of strokes and figures. 'Patterns ' are totally disorganised and appear random. Minimal pool coverage. | Swimmers are swimming and music playing but there is no link. | Totally oblivious to the surroundings. |

## 3. AN INTRODUCTION TO JUDGING FREE ROUTINES

### A. GENERAL OVERVIEW

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. Panel 1 Execution

The Execution score covers two areas: Execution, Synchronisation

#### 1. Judging Execution

**EXECUTION is the level of excellence in performing highly specialised skills.**

**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

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.

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 this Score.

**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.

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.

**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 precision of movement in unison, one with the other, and the accompaniment above, at and below the surface. Synchronisation of timing of one with another and with music.**

**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.

## C. Panel 2: 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 creative skill of composing a routine that combines artistic and technical elements. The design and weaving together of variety and creativity of all movements.**

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.

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.

A variety of transitional actions should be employed when moving into and out of strokes and figures.

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

Creativity should be considered in the broad sense of making something out of the ordinary, something unexpected or surprising.

Look for creativity in all actions - figures, strokes, propulsion techniques, transitions, patterns and pattern changes, paired and group actions.

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.

### 2. Judging Music Interpretation

**MUSIC INTERPRETATION is expressing the mood of the music, use of the music's structure.**

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

The interpretation of the music involves the swimmer(s) attempting to express the character or mood of the music.

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 manner in which the swimmer(s) present(s) the routine to the viewers. The total command of the performance of the routine.**

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.

## D. Panel 3: Difficulty

**DIFFICULTY is the quality of being hard to achieve. Difficulty of all movements and of synchronization.**

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.

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

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

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 within the routine: stress on the cardio-pulmonary system
- have a changing centre of gravity and/or buoyancy
- 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. JUDGING THE FREE COMBINATION ROUTINE

The Free Combination must have eight (8) to ten (10) competitors who make a combination of routines choreographed to music. (SS 4.4)

In Free Combination, at least two (2) parts must have fewer than three (3) competitors and at least two (2) parts must have eight (8) to ten (10) competitors. Start of the first part of the routine may be on the deck on in the water. All of the following parts must start in the water. A new part begins in very close proximity to the previous part. (SS13.2)

For the two (2) or more parts to be considered having fewer than three (3) competitors, all remaining competitors must be still or maintaining a pose. There is no required time length but a minimum of 3 seconds is a suggested guideline.

The intent of the Free 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.

**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 in very close proximity to the previous part. 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.

Three (3) panels of five (5) judges will officiate and provide one score as follows:

- Panel One -Execution
- Panel Two -Artistic Impression
- Panel Three -Difficulty

**Panel 1 – SS 17.2.1 EXECUTION SCORE – 30%**

| **Consider:** | |
|---|---|
| **Execution** – the level of excellence in performing highly specialized skills. | 50% |
| **Synchronisation** – the precision of movement in unison, one with the other, and the accompaniment above, at and below the surface. Timing of one with another and with music. | 50% |

**ADDITIONAL FACTORS SPECIFIC TO THE FREE 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.

**EXECUTION: Free Combination Routine EXCHANGES**

| | |
|---|---|
| 9's **Excellent – Near Perfect** | **Almost flawless** exchanges-solid, high & effortless<br>**Minute** synchronisation variations and errors in kicks or transitions most likely evident in team |
| 8's **Very Good** | **No major errors,** strong & high throughout exchanges, but may lack fluidity<br>Synchronisation is sharp and mostly together with only **minor errors** evident |
| 7's **Good** | Effort is evident with actions usually clear and fairly high, but power, height and propulsion may deteriorate within the exchanges as the routine progresses<br>Synchronisation could be crisper and more precise in timing |
| 6's **Competent** | Variable performance, medium height, lack of power in and out of exchanges, hard to follow patterns and transitions<br>Synchronisation errors are evident with differences in timing most evident in team exchanges |
| 5's **Satisfactory** | Some major and many minor execution errors in exchanges, propulsion not effective and height low<br>Moderate to major synchronisation errors |
| 4's **Deficient** | Many major problems, low height<br>Synchronisation more "off" than "on" |

**Panel 2 – SS 17.2.2 ARTISTIC IMPRESSION SCORE – 40%**

| **Consider:** | |
|---|---|
| **Choreography** – the creative skill of composing a routine that combines artistic and technical elements; variety and creativity. | 100% |
| **Music Interpretation** – expressing the mood of the music; use of the music's structure. | |
| **Manner of Presentation** – the manner in which swimmers present the routine to viewers; total command of performance. | |

**ADDITIONAL FACTORS SPECIFIC TO THE FREE 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 done involving different numbers of competitors? Is there variety in the moves used within the exchanges? (i.e. body boosts, figures, highlights-throws, stacks, platforms) 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 used in all parts?
- Consider the number & order of parts. Are there too many parts so that the judge does not have time to appreciate what is being done? Are the parts with less than 3 competitors interspersed between team parts OR are there several solo/duet parts in a row?
- 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 exchanges.
- Although a theme is not required, 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.

**ARTISTIC IMPRESSION: Free Combination Routine EXCHANGES**

| | |
|---|---|
| 9's<br>**Excellent - Near Perfect** | **Exchanges surprising, unexpected, "WOW" factor:** no distraction during exchange, competitors just 'disappear' when finished and 'appear' to start |
| 8's<br>**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<br>**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<br>**Competent** | **Exchanges ordinary and predictable with wait time,** competitors finishing a part and those starting a part are distracting |
| 5's<br>**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<br>**Deficient** | Exchanges don't appear to link routine, looks like separate sections with lack of connection |

**Panel 3 – SS 17.2.3 DIFFICULTY SCORE – 30%**

| **Consider:** | |
|---|---|
| Difficulty – the quality of being hard to achieve. Difficulty of all movements and the difficulty of synchronisation. | 100% |

**ADDITIONAL FACTORS SPECIFIC TO THE FREE COMBINATION ROUTINE**

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 parts 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.
- Are exchanges underwater or at the surface?
- Is there a variety in the type of exchange used?

**DIFFICULTY: Free Combination Routine EXCHANGES**

| | |
|---|---|
| **9's Excellent – Near Perfect** | Almost flawless, minute deviations, risk and difficulty throughout all exchanges, seamless flow between parts |
| **8's Very Good** | Most difficult components present and many high risk elements during exchanges, no wait time between parts |
| **7's Good** | Difficult, but may be limited by ability , less complex, may have minimal wait time between exchanges, some high risk elements but somewhat predictable |
| **6's Competent** | Predictable and ordinary exchanges, medium difficulty with some risk evident in exchanges |
| **5's Satisfactory** | Little difficulty or risk in exchanges, lots of time for visual checks, rest spots, easier exchanges |
| **4's Deficient** | Minimal difficulty and no risk in exchanges, basic simple moves with long setup times |

**SS 13 ROUTINE SESSIONS**

**SS 13.2**

In Free Combination, at least two (2) parts must have fewer than three (3) competitors and at least two (2) parts must have eight (8) to ten (10) competitors.

Start of the 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 in very close proximity to the previous part.

**SS 13.5.2**

If the lack of the reserve reduces the Free Combination size to less than that defined in SS 4.4, SS 6.2.2 or SS 13.2 the team shall be disqualified**.**

**SS 14 TIME LIMITS FOR ROUTINES**

**SS 14.1.4**

Free 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** | **Free Combination (minutes)** |
|---|---|
| 12 years and under | 3.30 |
| 13 -15 years | 4.00 |
| 16 - 18 years | 4.30 |
| Juniors: 15-18 years | 4.30 |

**SS 14 TIME LIMITS FOR ROUTINES**

**SS 14.1.5**

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

**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 14.1.7**

In routine events, when the Routine starts in the water, the time allowance for the athletes to achieve a stationary 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 18 DEDUCTIONS AND PENALTIES IN ROUTINES**

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

| | |
|---|---|
| 1 | **SS 18.2.1**<br>The time limit of ten (10) seconds for deck movements is exceeded |
| 2 | **SS 18.2.2**<br>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 and SSAG6 .** |

| | |
|---|---|
| 3 | **SS 18.2.3**<br>If the time limit of 30 seconds for the deck walk-on is exceeded. |
| 4 | **SS 18.2.4**<br>**Each** violation of rule **SS 13.2.** |
| 5 | SS **18.2.5**<br>A competitor has made a deliberate use of the bottom of the pool during the routine. |
| 6 | SS **18.2.6**<br>As described in SS 15.3, if the music accompaniment fails. |

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

| | |
|---|---|
| 1 | SS **18.2.7** A competitor has made a deliberate use of bottom of the pool during a routine to assist another competitor |
| 2 | SS **18.2.8** A routine is interrupted by a competitor during the deck movements and a new start is allowed. |
| 3 | SS **18.2.9** If during the deck movements in 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. |

# D. JUDGING THE HIGHLIGHT ROUTINE

The Highlight Routine is the newest event in Synchronised Swimming and it will be included in the World Cup and World Trophy programs. It has 8-10 swimmers. The time limit is two minutes and thirty seconds.

There are three required elements in this routine:

1. A minimum of four acrobatic movements
2. A connected or intertwined action
3. A float to give a kaleidoscopic effect.

All members must be involved to perform the required elements. If one, two, three or four of the acrobatic movements are missing one 2-point penalty will be given because the element has not been pre-formed as prescribed.

**Definitions of the required elements:**

**Acrobatic movements:** is a general term for jumps, throws, lifts, stacks, platforms, etc, which is performed at spectacular gymnastic feats and/or risky actions, and is mostly achieved with assistance by another swimmer(s).

**Connected or intertwined action:** When swimmers join or link together they create a connected action. Intertwined is the act of twisting together and around each other in spirals.

**A float to give a kaleidoscopic effect:** A float is a formation or pattern swimmers carry out with their bodies at the surface of the water. Some parts of their bodies can be above or below the surface. A kaleidoscopic effect is a symmetrical design or pattern that continuously shifts from one set of relations to another and rapidly changes.

**Judging the Highlight Routine:**

The Highlight Routine is judged like a Free Routine by three panels. The panels are:

- First panel – Execution Score – 30%.

  This panel will consider:

  - Execution – the level of excellence in performing highly specialized skills. Execution of all movements.
  - Synchronisation – the precision of movements in unison, one with the other, and the accompaniment above, at and below the surface. Synchronisation of timing of one with another and with music.

- Second panel - Artistic Impression Score – 40%

  This panel will consider:
  - Choreography – the creative skill of composing a routine that combines artistic and technical elements. The design and weaving together of variety and creativity of all movements.
  - Music Interpretation – expressing the mood of the music, use of the music's structure.
  - Manner of Presentation – the manner in which the swimmer(s) present(s) the routine to the viewers. The total command of the performance of the routine.

- Third panel – Difficulty Score – 30%

  This panel will consider:
  - Difficulty – the quality of being hard to achieve. Difficulty of all movements and of synchronisation.

- **First Panel – Execution**

  In this routine the swimmers are performing very specialised acrobatic skills for about 40% of the routine time. To be able to judge acrobatic moves we must observe very closely the following:

  - How much time they spend on preparation under the water.
  - How high they go (how much air under the athlete who is thrown) and how stable or moving they are.
  - If what they aim for is done well.

  In acrobatic moves only when swimmers move with precision and in unison can they get the best results.

  The principles of analyzing acrobatic moves are the same for jumps, lifts, throws, stacks and platforms.

  Follow the example of how a jump can be analysed to be able to score any acrobatic movement.

  - Analysis of a jump: The starting position of this movement begins with the preparation under or above the water. This preparation must be smooth; it must be aesthetically pleasing, fast, clear and compact. And this is where the judge must check synchronisation of the precision of movement in unison.

- Next, comes the jump of the airborne swimmer.

  - As judges, we look at the result of the swimmers working in unison.
    - If they are able to work in unison and use their specialised skills for acrobatics efficiently then the jump of the airborne swimmer will be able to reach its maximum height, 3+ meters.

- The second thing the type of movement the athlete is making.

  - For example, if her movements are straight, sideways, piked, stable or rotating.
  - Also consider the shape her body makes and the extension of her body the positions.
  - During the jump the action must be at all times aesthetically pleasing.

- Finally, we are evaluating the water entry.

  - It can be a foot first entry or a headfirst. Swimmers can also enter the water on their stomach, back or side.
  - Also, the swimmers' body's extension until they are completely submerged under the water. It is important that the entry makes minimal water splashes unless it choreographed with a deliberate splash.
  - The second element is a connected or intertwined action.
    - Competitors can be connected with any body part.
    - One or the other of these movements is required in a highlight routine.
    - In the execution of these actions we want to see a strong link between the swimmers that the spacing between the swimmers is symmetrical and the motion or twisting is pleasing to the eye.
  - The execution of the float is also important in the Highlight Routine.
    - In floats some parts of their bodies can be above or below the surface such as, arms out, ballet leg, etc. Or below can be pikes, front layouts, side, etc.
    - To give a kaleidoscopic effect in Synchronised Swimming the swimmers create a pattern that has a symmetrical design and rapidly changes. Each change creates a new float.
      - At least two changes will be required to give a kaleidoscopic effect.
      - The swimmers should lock each float so that its design clearly shows.

- Then the space relationship between each swimmer, the angle of each body position and the swimmer's body extension.
- The transitions should be rapid and efficient between the floats.

▪ In order for all these elements to happen synchronisation is essential.

o The rest of the program is judged like the execution of a Free Routine.

- **<u>Second Panel – Artistic Impression</u>**

o Due to the time limit of two minutes and thirty seconds and the three required elements that take at least one minute thirty seconds, the choreography of this program is very intense.
o Even the name of the program "Highlight" indicates how demanding it can be because the entire routine should be memorable and not only parts of it.
o A lot of emphasis must be given to the weaving of the required elements with the rest of the routine to choreograph movement in the routine.
o Why do we need to spend so much time on movement in the chorography? Well that is because most of the require elements are not moving.
o Another challenge in the Highlight Routine is that the first requirement that has a minimum of four acrobatic movements involves all the swimmers but you only see one or two swimmers are above the surface.
o To achieve variety the choreography is a big part of the one-minute using eight, six, fours and twos.
o To create a memorable routine, music and manner of presentation must have a big impact. That means choosing a theme or unusual music can make or break the routine.
o Having all this in mind and the principles of judging choreography in the free routine, we can judge the Highlight Routine correctly.

- **<u>Third Panel – Difficulty</u>**

o The third panel of judges will score Difficulty.
o It is the first time in Synchronised Swimming that Difficulty takes 30% of the entire routine score.
o Analysis of acrobatic movements:
▪ In lifts the base is judged.
- A single base is easier than a double base.
- A stable base is easier than a moving base.

▪ Consider what the supported person is doing.
- A simple leg stand it is easier than a handstand.

- A stable stand is easier than a turning stand and gymnastic movements are more difficult than a stationary position.

- In jumps, Difficulty is based on the complexity of movements done in the air as well as how high the airborne swimmer goes.
  - In rotations, forward rotations are easier than backwards or sideways rotations.
    - Also during the rotation the body can make a full turn around a horizontal axis.
    - One turn is easier than a double or triple turn.
- The TSSC created an ad hoc committee to study difficulty in acrobatic moves and we hope that with this study we will have a definite numerical value for these movements that will help judging difficulty in the future.
- Everything else is judged like a Free Routine but as a reminder the composition or the placement of Difficulty in the routine makes a difference.
  - The speed and the pool coverage also adds to the difficulty in the Highlight Routine due to the time limit.
  - In the float and the joined action, failure to connect, particularly if minimal time is given for the connection adds to the Difficulty.
  - Also patterns become more difficult by increasing the number of patterns and types of changes made along with the spatial relationships of swimmers.

# E. TECHNICAL ROUTINES

## 1. SCORING A TECHNICAL ROUTINE

### SS 4 SESSIONS

#### SS 4.2 Technical Routine. : Preliminaries /Finals

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

### SS 14 Time Limits for Technical Routines

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

| | |
|---|---|
| **SS 14.1.1** – Technical Routine solo: | 2 minutes 00 seconds |
| **SS 14.1.2**.- Technical Routine duet: | 2 minutes 20 seconds |
| **SS 14.1.3**.- Technical Routine team: | 2 minutes 50 seconds |

### SS. 17 Judgment of Routines

In routines the competitor can obtain points from 0 to 10 using one tenth points.

#### SS 17.3. Technical Routines

- In Technical Routines each judge shall award score(s ) from 0 to 10 points ( see 17.1)
- Execution Panel shall award one score for Execution of all movements that do not have an assigned degree of difficulty, and Synchronisation.
- Impression panel judges shall award one score for Difficulty, Choreography, Music Interpretation and Manner of presentation.
- Elements Panel judges shall award individual scores for the Execution of each required element with an assigned degree of difficulty.
- All of the following arrays are subject to the decision of the TSSC.

### SS 17.3.1 First panel – EXECUTION Score - 30%

:

| Consider | Solo | Duet | Team |
|---|---|---|---|
| **EXECUTION** – the level of excellence in performing highly specialised skills. Execution of all movements that do not have an assigned degree of difficulty. | 90% | 50% | 50% |
| **SYNCHRONISATION** - the precision of in unison, one with the other, and the accompaniment above, at and below the surface. Synchronisation of timing of one with another and with music. | 10% | 50% | 50% |

### SS 17.3.2 Second panel - IMPRESSION Score - 30%

:

| Consider | Solo | Duet | Team |
|---|---|---|---|
| **DIFFICULTY** – the quality of being hard to achieve. Difficulty of all movements that do not have an assigned degree of difficulty and of synchronisation. | 50% | 50% | 50% |
| **CHOREOGRAPHY** - the creative skill of composing a routine that combines artistic and technical elements. The design and weaving together of variety and creativity of all movements. | | | |
| **MUSIC INTERPRETATION** - expressing the mood of the music, use of the music's structure. | 50% | 50% | 50% |
| **MANNER OF PRESENTATION** - the manner in which the swimmer(s) present(s) the routine to the viewers. The total command of the performance of the routine. | | | |

### SS 17.3.3 Third panel – ELEMENTS Score - 40%

Consider

**EXECUTION** – the level of excellence in performing highly specialised skills. Execution of each required element with an assigned degree of difficulty.

**SS 17.4** In the Technical Routine, if a judge on the Elements Panel by reason of unforeseen circumstances has made no award for a particular required element (a zero) the referee will review the official video. If the required element has been executed, then the average of the awards of the other judges shall be computed and shall be considered as the missing award. This shall be calculated to the nearest 0.1 point.

## SS 18 Deductions and Penalties in Routines

**SS 18.1 and SS 18.2** Please refer to the FINA Handbook.

**SS 18.3** In Technical Routines, a half point (0.5) penalty shall be deducted from the Execution score for violations of Duet required element 6 and 7 and Team required elements 6 and 7 of the Appendix VI.

**SS 18.4** Please refer to the FINA Handbook.

**TSSC clarifications established on 3 November 2013:**

- In a Technical Routine, if one or more swimmers omit all or part of an element, or perform an incorrect action in an element, the judges on the Element Panel shall award a zero score for that particular element.

- In a Technical Routine, any change in the order of elements results in a zero score from the judges for the element not placed in the correct order.

# 2. GENERAL REQUIREMENTS

1. 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.

2. Required Elements #1 - #5 shall be judged within the Elements score.

3. Time limits as in SS 14.1.

➢ It is strongly recommended, for clarity of judgment that Required Elements #1 - #5 are separated by other content.

## SOLO REQUIRED ELEMENTS

Required elements 1 – 5 are to be performed in the order listed.

1 Starting in a **Vertical Position**, the body rotates through 360° opening to a **Split Position**. Continuing in the same direction a further 360° rotation is completed while the legs join to **Vertical Position**. Rotating in the opposite direction, a *Continuous Spin* of 1440° (4 rotations) is executed. [DD 2.1]

2 Starting in a submerged **Back Pike Position** with the legs vertical, a *Rocket Split* is executed to an **Airborne Split Position.** Maintaining maximum height a *Twirl* is executed as the legs join to **Vertical Position** followed by a rapid *Vertical Descent*. [DD 2.6]

3 150 – A Knight is executed. Head first travel is allowed during the transition to the Ballet Leg. [DD 3.1]

4 Starting in a **Vertical Position** a *Full Twist* is executed followed by a *Combined Spin* of 1080° (3 rotations). [DD 2.4]

5 Starting in a submerged **Back Pike Position** with the legs vertical, 301e – a Barracuda Spinning 360° is executed. [DD 1.9]

## DUET REQUIRED ELEMENTS

Required elements 1 – 5 are to be performed in the order listed.

1 436 – A Cyclone is executed to a **Vertical Position**. A *Full Twist* is executed as one leg lowers to a **Bent Knee Vertical Position**, followed by a *Continuous Spin* of 1080° (3 rotations) as the bent knee is joined to a **Vertical Position**. [DD 3.1]

2 From a **Back Layout Position**, travelling head first, one leg is lifted straight 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 legs are held straight throughout the element. [DD 1.9]

3 Starting and maintaining a **Fishtail Position**, with the horizontal leg leading toward the vertical leg, 2 rapid rotations (720°) are executed. Continuing in the same direction, the horizontal leg is lifted to a **Vertical Position** as a *Continuous Spin* of 720° is executed. [DD 2.1]

4 Starting in a **Front Pike Position**, the legs are lifted to a **Vertical Position**. A *Half Twist* is executed followed by a further rotation of 180° with the legs opening to a **Split Position**. A *Walkout Front* is executed. [DD 2.8]

5 Starting in a submerged **Back Pike Position** with the legs vertical, 301c – a Barracuda Twirl is executed. [DD 2.4]

6 The routine must contain a lift or throw, this can be placed anywhere in the routine.

7 With the exception of the deck work, entry and the lift or throw, all elements required and supplementary must be performed simultaneously and facing the same direction. Mirror actions are not permitted.

## TEAM REQUIRED ELEMENTS

Required elements 1 – 5 are to be performed in the order listed.

1 Starting in a submerged **Back Pike Position** with the legs vertical, 301 – a Barracuda is executed. [DD 1.8]

2 435 – A Nova is executed to the **Bent Knee Surface Arch Position**. A rotation of 360° is executed as the legs are lifted to a **Vertical Position** followed by a *Continuous Spin* of 720° (2 rotations). [DD 2.4]

3 Starting in a **Front Pike Position**, the legs are lifted to a **Vertical Position**. A *Full Twist* is executed, the legs are lowered to a **Split Position**. A *Walkout Front* is executed. [DD 2.9]

4 Starting in a submerged **Back Pike Position** with the legs vertical, 308 – a Barracuda Airborne Split is executed. [DD 2.5]

5 Travelling Ballet Leg Sequence. Starting in a **Back Layout Position** travelling head first, a *Ballet Leg is assumed*, the horizontal leg bends to a **Flamingo Position** and is then lifted to a **Ballet Leg Double Position.** [DD 1.7]

6 The routine must contain one head first throw and a Cadence Action with either arms or legs. These may be placed anywhere in the routine.

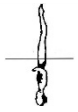
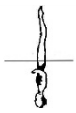
7 With exception of the deck work, entry, the throw and the Cadence Action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by all team members. Variations in propulsion and direction facing are permitted only during pattern changes and underwater actions. Mirror actions are not permitted.

# 3. NUMERICAL DIFFICULTY VALUES CHART FOR REQUIRED ELEMENTS

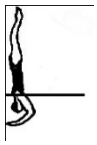
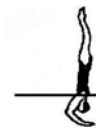
## SOLO REQUIRED ELEMENTS

Required elements 1-5 must be performed in the order listed. **Solo Total DD = 12.1**

1. Starting in a **Vertical Position**, the body rotates through 360° opening to a **Split Position**. Continuing in the same direction a further 360° rotation is completed while the legs join to **Vertical Position**. Rotating in the opposite direction, a *Continuous Spin* of 1440° (4 rotations) is executed. **DD = 2.1**

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT= | 19.0 | 21.0 | 29.0 | 69 |
| PV = | 2.75 | 3.04 | 4.20 | |

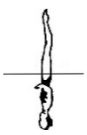
2. Starting in a submerged **Back Pike Position** with the legs vertical, a *Rocket Split* is executed to an **Airborne Split Position.** Maintaining maximum height a *Twirl* is executed as the legs join to **Vertical Position** followed by a rapid *Vertical Descent*. **DD = 2.6**

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT= | 37.0 | 19.0 | 23.0 | 14.0 | 93 |
| PV = | 3.98 | 2.04 | 2.47 | 1.51 | |

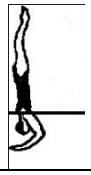
3. 150 – A Knight is executed. Head first travel is allowed during the transition to the Ballet Leg. **DD = 3.1**

|  |  |  |  |  |  |  |  |  | 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 | |

4. Starting in a **Vertical Position** a *Full Twist* is executed followed by a *Combined Spin* of 1080° (3 rotations). **DD = 2.4**

| | | | | Total |
|---|---|---|---|---|
| |  |  |  | |
| NVT= | 29.0 | 41.0 | 14.0 | 84 |
| PV = | 3.45 | 4.88 | 1.67 | |

**5.** Starting in a submerged **Back Pike Position** with the legs vertical, 301e – a Barracuda Spinning 360° is executed. **DD = 1.9**

| | | | Total |
|---|---|---|---|
|  |  |  | |
| NVT= | 37.0 | 21.0 | 58 |
| PV = | 6.38 | 3.62 | |

## DUET REQUIRED ELEMENTS

Required elements 1-5 must be performed in the order listed. **Duet Total DD = 12.3**

**1.** 436 – A Cyclone is executed to a **Vertical Position**. A *Full Twist* is executed as one leg lowers to a **Bent Knee Vertical Position**, followed by a *Continuous Spin* of 1080° (3 rotations) as the bent knee is joined to a **Vertical Position**. **DD = 3.1**

| | | | | | Total |
|---|---|---|---|---|---|
|  |  |  |  |  | |
| NVT= | 19.5 | 39.0 | 24.0 | 37.0 | 119.5 |
| PV = | 1.63 | 3.26 | 2.01 | 3.10 | |

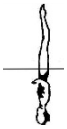
**2.** From a **Back Layout Position**, travelling head first, one leg is lifted straight to a **Ballet Leg Position.** The horizontal leg is lifted to a **Ballet Leg Double Position**. Maintaining the **Ballet Leg Double Position**, a rotation of 360° is executed. The legs are held straight throughout the element. **DD = 1.9**

| | | | | Total |
|---|---|---|---|---|
|  |  |  |  | |
| NVT= | 14.5 | 20.0 | 23.0 | 57.5 |
| PV = | 2.52 | 3.48 | 4.00 | |

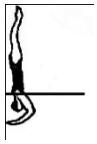
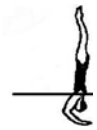
**3.** Starting and maintaining a **Fishtail Position**, with the horizontal leg leading toward the vertical leg, 2 rapid rotations (720°) are executed. Continuing in the same direction, the horizontal leg is lifted to a **Vertical Position** as a *Continuous Spin* of 720° is executed. **DD = 2.1**

|  |  |  | Total |
|---|---|---|---|
| NVT= | 18.5 | 48.5 | 67 |
| PV = | 2.76 | 7.24 | |

**4** Starting in a **Front Pike Position**, the legs are lifted to a **Vertical Position**. A *Half Twist* is executed followed by a further rotation of 180° with the legs opening to a **Split Position**. A *Walkout Front* is executed. **DD = 2.8**

|  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|
| NVT= | 29.0 | 19.0 | 21.0 | 24.0 | 11.0 | 104 |
| PV = | 2.79 | 1.83 | 2.02 | 2.31 | 1.06 | |

**5** Starting in a submerged **Back Pike Position** with the legs vertical, 301c – a Barracuda Twirl is executed. **DD = 2.4**

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT= | 37.0 | 35.0 | 14.0 | 86 |
| PV = | 4.30 | 4.07 | 1.63 | |

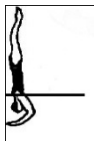
**6** The routine must contain a lift or throw, this can be placed anywhere in the routine.

**7** With the exception of the deck work, entry and the lift or throw, all elements required and supplementary must be performed simultaneously and facing the same direction. Mirror actions are not permitted.

## TEAM REQUIRED ELEMENTS

Required elements 1-5 must be performed in the order listed. **Team Total DD = 11.3**

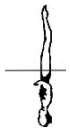
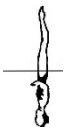
**1.** Starting in a submerged **Back Pike Position** with the legs vertical, 301 – a Barracuda is executed. **DD = 1.8**

|  |  |  | Total |
|---|---|---|---|
| NVT= | 37.0 | 14.0 | 51 |
| PV = | 7.25 | 2.75 | |

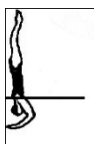
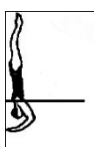
**2.** 435 – A Nova is executed to the **Bent Knee Surface Arch Position**. A rotation of 360° is executed as the legs are lifted to a **Vertical Position** followed by a *Continuous Spin* of 720° (2 rotations). **DD = 2.4**

|  |  |  |  | Total |
|---|---|---|---|---|
| NVT= | 19.5 | 39.5 | 27.0 | 86 |
| PV = | 2.27 | 4.59 | 3.14 | |

**3.** Starting in a **Front Pike Position**, the legs are lifted to a **Vertical Position**. A *Full Twist* is executed, the legs are lowered to a **Split Position**. A *Walkout Front* is executed. **DD = 2.9**

|  |  |  |  |  |  | Total |
|---|---|---|---|---|---|---|
| NVT= | 29.0 | 29.0 | 19.0 | 24.0 | 11.0 | 112 |
| PV = | 2.59 | 2.59 | 1.70 | 2.14 | 0.98 | |

**4.** Starting in a submerged **Back Pike Position** with the legs vertical, 308 – a Barracuda Airborne Split is executed. **DD =2.5**

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT= | 37.0 | 19.0 | 21.0 | 14.0 | 91 |
| PV = | 4.07 | 2.09 | 2.31 | 1.54 | |

**5.** Travelling Ballet Leg Sequence. Starting in a **Back Layout Position** travelling head first, a *Ballet Leg is assumed*, the horizontal leg bends to a **Flamingo Position** and is then lifted to a **Ballet Leg Double Position. DD = 1.7**

|  |  |  |  |  | Total |
|---|---|---|---|---|---|
| NVT= | 10.5 | 11.0 | 10.5 | 16.0 | 48 |
| PV = | 2.19 | 2.29 | 2.19 | 3.33 | |

**6.** The routine must contain one head first throw and a Cadence Action with either arms or legs. These may be placed anywhere in the routine.

**7.** With exception of the deck work, entry, the throw and the Cadence Action, all elements – required and supplementary – must be performed simultaneously and facing the same direction by all team members. Variations in propulsion and direction facing are permitted only during pattern changes and underwater actions. Mirror actions are not permitted.

# F. 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. Use of muscular strength to enhance the stretch. |
| **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 48 hours before the start of the first competition :

- 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; 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.
- All information regarding entries.

**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 The Referee is authorised to assign a substitute judge.**

One or more reserve judges should be named for each event. They must be present before the start of the event at the judges meeting room with the rest of the designated 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. If a penalty for any reason or deduction (to required elements in technical routines) is to be applied, the Referee has to assure the coach or delegate of the affected participant be informed in time to permit them to present a protest if they consider so.

**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 **SS13.8-SS13.11,** 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 complains 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 may go unrecognized in Synchronised Swimming during an athlete's competitive years due to the relatively low impact of training, however healthy bone mass density is necessary to prevent problems later life.

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. 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. 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 synchronized swimmer with a shoulder injury will complain of pain of lifting the arm away for the body or 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 bony 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 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.

# 2013 – 2017 FINA Synchronised Swimming Manuals


**FINA Office**

**Av. De l'Avant-Poste 4**

**1005 Lausanne**

**www.fina.org**