



LONG TERM SAILOR DEVELOPMENT



Sailing to Win
La voile pour la victoire



Sailing for Life
La voile pour la vie





LTSD WORKING GROUP

- Istvan Balyi (LTAD)
- Ken Dool (CYA)
- Tine Moberg-Parker (BC)
- Brian Todd (NS/CYA)
- Marie Gendron (QC)
- Peter MacDougall (AB)
- Rob Fox (ON)
- Eric Cartilidge (Ontario Sailing)
- Sarah Case-Moscrop (CYA)
- Andrew Moss (Moss Melien)

COMPETITION REVIEW WORKING GROUP

- Tyler Bjorn (QC)
- Tommy Wharton (ON/CYA)
- Dr. Teddi Orenstein Lyall (Cdn. Opti Dinghy Class Assoc., BC rep)
- Steve McBride (BC)
- Quentin Pollock (BC)
- Paul Ulibarri (BC)
- Tracy Terry (BC)
- Dave Thomas (BC)
- Brigitte Smutny (MB)
- Lisa Ross (NS)
- Kevin Black (BC)
- Zac Plavsic (BC)

Canadian Yachting Association
Association canadienne de yachting

Portsmouth Olympic Harbour
53 Yonge Street
Kingston, Ontario
Canada
K7M 6G4

Tel/Tél.	(613) 545-3044
Fax/Télé.	(613) 545-3045
Email/Courriel	sailcanada@sailing.ca
Web :	www.sailing.ca



 Canadian Heritage Patrimoine canadien

Sport Canada

"Growing up near the water in British Columbia, I started sailing in sailing summer camp when I was 9 years old.

I really enjoyed being outside, on the water, playing around on boats and being with my friends. I played many other sports all throughout growing up but in the summers I concentrated on achieving all the levels of sailing. It wasn't until I was about 15 that I narrowed my focus in on sailing and racing.

When fun was met by challenges, goals were formed which hurdled me down a path of success, ultimately competing in two consecutive Olympic Games. What's really great about sailing is that it's a lifelong sport."



Nikola Girke 2-time Olympian



"As a youth, sailing around Nova Scotia was one of the many ways to get out and enjoy all of our lakes and ocean. Later in life, when I began sailing competitively, the local support from the sailing community - along with great coaches and mentors - helped me realize my dream of achieving excellence."

Paul Tingley Gold Medallist 2008 Paralympic Games

FOREWORD

The release of the Canadian Yachting Association's Long Term Sailor Development Model represents a significant step towards our vision: Sailing to Win – Sailing for Life. This initiative establishes our commitment to aligning our systems and programs with Sport Canada's Long Term Athlete Development Resource Paper.

In recognition of the current reality where substantial numbers of sailors are abandoning our sport at a young age, this document provides a framework for the optimal development of athletes towards the stages of Winning for a Living, and ultimately Sailing for Life. This is the result of a collaboration of experts from across the country, all of which have been recognized in the acknowledgements section in the inside cover.

The Canadian Yachting Association's motivation behind compiling this document is not only to advance our sport, but also to ensure that all participants develop into healthy and active individuals. The principles of LTSD expand beyond the sport into a general model for physical, cognitive and emotional development

The implementation of this model in conjunction with the Canadian Yachting Association's strategic plan will ideally result in unprecedented Canadian success on the international racing stage, as well as increased numbers of long-term participants of all ages, abilities and motivations for sailing.



"Sailing to Win – Sailing for Life embraces the long term sailor development (LTSD) philosophy, focusing on the individual's development within sailing. LTSD is a framework for developing the participant's first involvement into a lifelong love affair with sailing, with every stage appropriate to the physical and intellectual needs of the sailor."

Paddy Boyd
Executive Director
Canadian Yachting Association

TABLE OF CONTENTS

LTSD Expert Groups.....	3
Introduction.....	4
Table of Contents.....	6
LTSD Overview.....	7
Challenges and Opportunities.....	8
Factors Influencing LTSD.....	10
LTSD Model	12
Training/Competition Overview.....	14
LTSD Stage Descriptions.....	16
Optimal Windows of Trainability.....	60
Information for Parents.....	61
Glossary of Terms.....	62

LTSD is a sailing-specific adaptation of two important resources developed by Sport Canada: “[Canadian Sport for Life](#)” and “[No Accidental Champions](#)”.

These documents provide generic foundation information on long term athlete development for both able bodied and disabled athletes.

Please visit <http://canadiansportforlife.ca> to access these documents and other resources related to long term athlete development.

The LTSD framework provides:

- Sailing specific adherence to the Long Term Athlete Development principles as set forth by Canadian Sport for Life.
- Developmentally appropriate programming for sailing from sport entry through learning and training.
- Coaching expertise at all stages of development.
- A competitions structure appropriate to the development stage of the sailor.
- An officials development framework.
- And a strong and effective yachting and sailing club network.

We will evaluate our success using the following indicators:

Long Term Sailing Development

- The LTSD framework being implemented across Canada.

Sailing To Win

- Winning performances at Olympic and Paralympic, world and major events (Podium, top 6 – top 10 performances).
- High performance system operational, aligned with LTSD framework.
- Investment in areas which optimize performance.
- By 2020, a 30% increase in the number of top 10 world rankings.

Sailing For Life

- By 2020, a 20% increase in the number of Canadians participating in sailing.
- Increases in the number and quality of coaches, instructors and officials.
- Increases in the number and quality of CYA programs being delivered in clubs and by stakeholders.
- Increases in the participation levels in sailing in Canada (retention - recruitment – growth –activity).

Leadership

- Our effectiveness as the National Sport Organization for sailing in Canada.
- The level, engagement with and satisfaction of our membership.
- The effectiveness and quality of partnerships with key stakeholders.
- The revenue we generate to invest in our sport – from all sources.

A TIME OF OPPORTUNITY

The Canadian sport system is full of examples where the “way we do things” has been developed over the years based on a piecing together of tradition, historical perspectives passed along to others, political precedence, and if we look at coaching as an example, “coaching the way we were coached”.

To those entering the sport, these operating methods are often assumed, based on the assurances of those who have been around longest, to be the best way.

Sports who step back and look at their own systems from the perspective of the long term development of the participants, will find many opportunities for system enhancements -- enhancements based on the science of biological and psychological development.

Some examples of shortcomings seen in the Canadian sport system:

- Developmental athletes over-compete and under-train.
- Adult training and competition programs are imposed on developing athletes.
- Training methods and competition programs designed for male athletes are imposed on female athletes.
- Preparation is geared to the short-term outcome — winning — and not to the process.
- Chronological rather than developmental age is used in training and competition planning.
- Coaches largely neglect the critical periods of accelerated adaptation to training.
- Fundamental movement skills and sport skills are not taught properly.
- The most knowledgeable coaches work at the elite level while less skilled coaches work at the developmental level.
- Parents are not educated about long term athlete development.
- Developmental training needs of athletes with a disability are not well understood.
- Competition systems interfere with optimal athlete skill development.
- Sports specialize too early in an attempt to attract and retain participants.





“INACTION IS NOT AN OPTION”

We must take this opportunity to deal with significant issues facing our sport.

- Athletes failing to reach their genetic potential and optimal performance level.
- Failure to reach optimal performance levels in international competitions.
- Lost membership in the sport - participants will find a sport where their talents can be developed - or they will leave sport all together.
- Sailors lacking basic coordination and movement skills.
- Lack of overall athletics fitness - an important factor for recovery, learning new skills and life after sport.
- Compromised skill development - sailors lacking the mastery formed through repetition in training.
- Bad habits developed from over-competition focused on winning.
- Female athlete potential not reached due to inappropriate programs.
- Children not having fun as they are put through adult-based programs.
- No systematic development of the next generation of successful participants - sailors, coaches, officials, managers, administrators.
- Sailors pulled in different directions by school, club, and provincial teams because of the lack of alignment of programs.
- Costly requirement to implement remedial programs, implemented by provincial and national team coaches, to counteract the shortcomings of sailor preparation at earlier stages.
- Fluctuating national and international performances with potential talent lost from the sport, or under-developed through traditional pathways.



FACTORS INFLUENCING SAILOR DEVELOPMENT

The Ten Year Rule

Sport scientists have determined that it takes approximately 10 years and 10,000 hours of applied training for a talented athlete to attain elite status.

The Fundamentals

The FUNdamentals are the basic sport skills necessary become an athlete in any sport. The FUNdamental movement and sports skills are referred to as physical literacy. Individuals who do not develop physical literacy (which consists of agility, balance, coordination, speed, jumping, etc) before the onset of the adolescent growth spurt are unlikely to achieve success in sport, including sailing.

Specialization

Sailing is referred to as a late-specialization sport, which means that the required skills are mastered following maturation and a sailor's prime is reached in one's early thirties. Young sailors should participate in a variety of sports in order to develop physical literacy, which will ultimately help them maximize their sailing potential.

Developmental Age

The LTSD model is based upon developmental age, rather than chronological age. Sailing coaches and instructors must be aware of the varying levels of physical maturity among their athletes. Each athlete's level of maturity must be identified as early, average or late in order to provide appropriate training and competition programs. *Note that each stage identifies an age range- these are simply a guideline for children entering the sport. Not all people need enter sailing as a child. The sailing skill development progression through the stages appears to anyone's development as a sailor.

Trainability

While the human body remains 'trainable' throughout one's lifetime, there are particular stages in development when the body is the most receptive to particular forms of training. The critical stages of development identify windows of opportunity during which young sailors should focus on particular skills. The five skills identified by LTSD are: Stamina, Strength, Speed, Skill and Flexibility. Adhering to the LTSD model will ensure the optimal development of these skills in sailors.



Physical, mental, cognitive and emotional development

Taking into consideration all aspects of how the human body develops is an integral part of the LTSD model.

Each athlete's physical, mental, cognitive and emotional development needs are to be considered when developing training and competitive programs. Particularly relevant in sailing are the mental and cognitive characteristics, which should be a primary focus of development for any coach or athlete.

Periodization

Periodization is, in essence, time management. It is the process of analyzing and arranging the complex assortment of training processes into a methodical, realistic and scientific program that will optimize progression in performance. The benefit of periodization is that it is a situation-specific activity that takes into account priorities and availability. This methodology can be long-term (multi-year) or short-term (annual, monthly, weekly). The most important thing to remember is to create a timeline that is realistic and in alignment with the stages outlined in the LTSD model.

Calendar planning for competition

As sailing is a seasonal sport, calendar planning is crucial. In the early stages of LTSD, physical and cognitive capabilities take precedence over competition. As the stages progress, competing becomes more important. With this in mind it is important to sync your schedule with the dates of races and high level regattas that you plan on competing in. By establishing your schedule to fit those requirements, you give yourself the optimal chance of succeeding.

System alignment and integration

The long term athlete development model acknowledges that physical education, school sport, recreational activities, and competitive sports are mutually dependent. Sailing is a late specialization sport, and as such relies on schools, clubs and other sports to develop physical literacy and an early level of fitness. Each of these separate entities must support one another, with clearly stated roles in the developmental process.

SAILING TO WIN

SAILING FOR LIFE



LONG TERM SAILOR DEVELOPMENT MODEL



Active Start and Awareness

Children have FUN playing SAFELY on and in the water as part of daily physical activity.

Fundamentals & Point of First Contact

Sailing activities teach boat propulsion and steering, water safety and seamanship, athletic abilities and FUN!

Learn to Sail Fast!

Learn boat handling and propulsion skills in all types of wind conditions. Introduction to rules and fundamental racing skills.

Learn to Train

As the sailor grows, refine established sailing and racing skills in larger single handed boat, double handed boat and board.

Learn to Compete

Sailors pursuing a performance pathway transition to Olympic and Paralympic classes. Refinement of all advanced skills.

Train to Compete

Sailors develop annual and multi-year campaigns with training focused on best ever performances at major events.

Train to Win

Multi-year campaigns with training and racing focused on top ranked performances at major events.

Winning for a Living

Full time racing campaign with consistent medal performance at all major events.

Sailing for Life

Enjoying a lifetime of sailing activities.

Participating in club and class racing at all levels.

Enjoying cruising and day sailing.

Learning to sail as an adult.

Coaching others to sail.

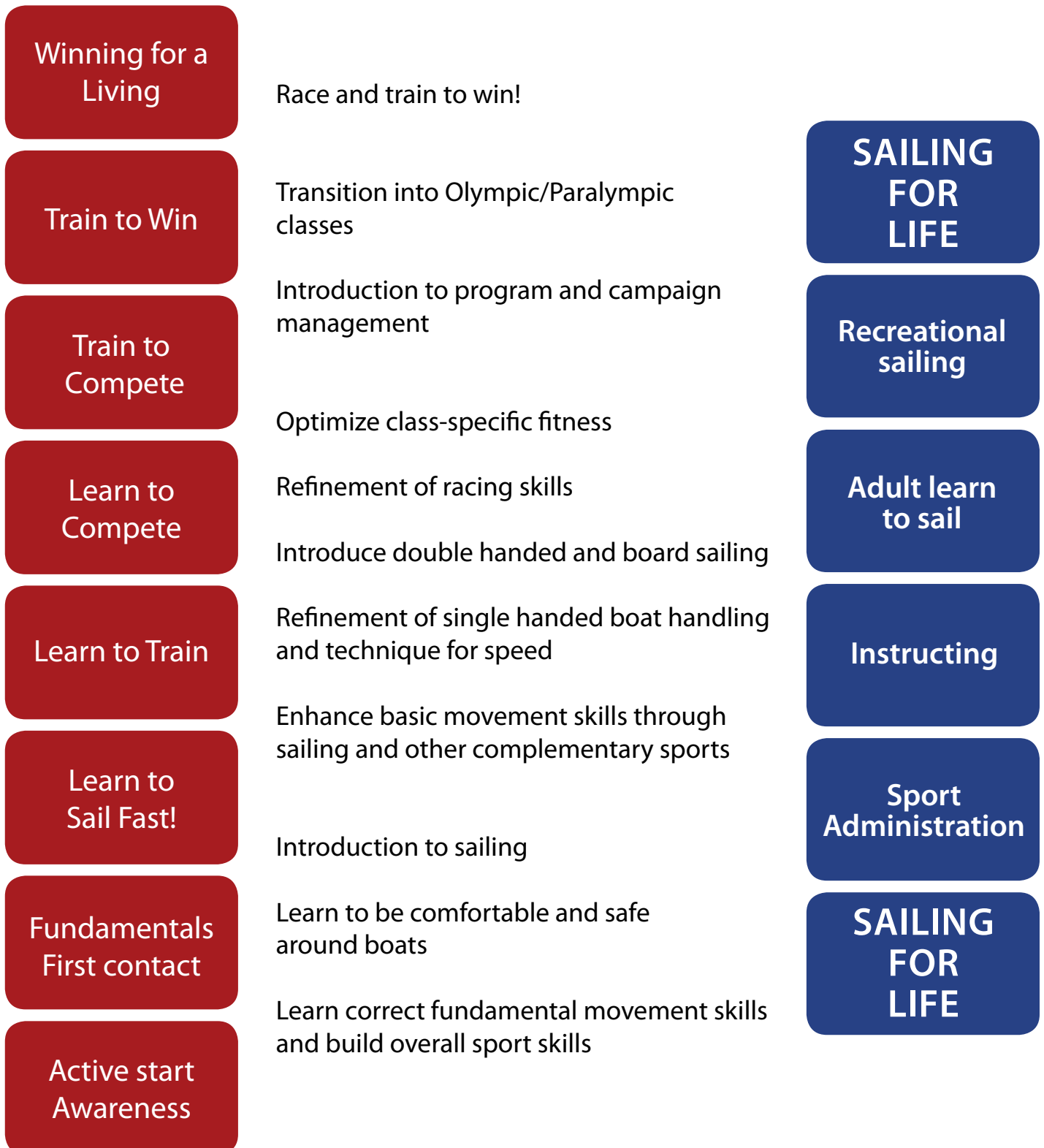
Get involved in the administration of the sport of sailing at any level.

Becoming a sailing race official.

Helping out with the hosting of events.



TRAINING AND PROGRAMS MODEL



COMPETITION MODEL

**SAILING
FOR
LIFE**

**Club and
class racing**

**Race
Officiating**

Coaching

Event hosting

**SAILING
FOR
LIFE**



ACTIVE START AND AWARENESS

Age Range: 0-6 years (*see note on age on page 10)

Key Objectives

- Learn to be comfortable and safe around boats.
- Learn and perform fundamental movements and link them together into play including in-water, on-water and off-water activities.
- Encourage participation in both organized physical activity, and unstructured but supervised play.
- Allow children to explore risk and limits in safe environments.

General Characteristics

- Introduction to water activities.
- Develop physical literacy through basic movement skills such as running, jumping, twisting, wheeling, kicking, throwing and catching.
- Organized physical activity for at least 30 minutes a day for toddlers and 60 minutes a day for preschoolers.
- Unstructured physical activity for at least 60 minutes a day, and up to several hours per day for toddlers and preschoolers. Toddlers and preschoolers should not be sedentary for more than 60 minutes at a time except while sleeping.
- Ensure that children acquire simple movement skills that build towards more complex movements. These skills help lay the foundation for lifelong physical activity.
- Design activities that help children to feel competent and comfortable participating in a variety of fun and challenging activities.
- Ensure that games for young children are cooperative and focus on participation.
- Activity design allows for success and challenge, developing self esteem and resiliency.
- Ensure that activities are gender-neutral and inclusive so that active living is equally valued and promoted for all children, including those with a disability.
- Focus on social skills and personal interaction.
- Physical activity every day regardless of weather.
- Provide parents and care givers with age-appropriate information promoting daily physical activity.



Considerations for Sailors with Disabilities

- National, Provincial and local sailing organizations implement awareness strategies that make their program offerings known to prospective sailors with a disability.
- Encourage parents to let children explore their physical abilities.
- Promote sailing as an activity for life.
- Sailing clubs and instructors must create an accessible and welcoming environment.

Sailing skills

- Introduce balance in or on a boat through an organized mix of play and discovery, with limited formal instruction.
- Promote supervised unstructured play in and on the water.

Specialized Equipment

- Properly fitted lifejacket or PFD.

Recommended Programs

- Water and land based programs offered in the community.
- Introduction to boating and sailing programs for children and parents, as available at yacht and sailing clubs.



FUNDAMENTALS & FIRST CONTACT

Age Range: Male 6-9 years, Female 6-8 years (*see note on age on page 10)

Key objectives

- Learn correct fundamental movement skills and build overall sport skills.
- Introduction to sailing.

General characteristics

- Encourage participation in a wide range of sports.
- Develop basic balance, propulsion and direction sailing skills.
- Consolidate swimming skills to be comfortable in and on the water.
- Emphasize the overall development of the sailor's physical capacities, fundamental movement skills and ABC's of athleticism – agility, balance, coordination and speed.
- Introduce children to the simple rules and ethics of sports.

Considerations for Sailors with Disabilities

- Clubs, instructor and coaches must provide an accessible environment for sailors.
- Equipment to accommodate a variety of disabilities is available (sling, sip and puff, servo assist, hydraulic lifts etc...).

Sailing skills

- Consolidate water safety habits.
- Initiation of balance/direction/propulsion abilities using body/helm/sail in light conditions.
- Introduction and acquisition of basic sailing maneuvers : Sail to a point, Sail to a sail, Tack, Gybe, Head up, Bear off, Stop, Go, Double Sheeting.
- Introduce down-speed maneuvers for docking, approaching coach boat, etc.
- Introduction to basic seamanship.



Competition

- Create opportunities to have fun in small groups.
- Introduce sailing as a sport and recreation activity.

Boats

- Check current Equipment Pathway on sailing.ca
- Boat supplied by club.

Physical preparation

STAMINA

Coaches should understand that at this stage, trainability of the aerobic system is good. In principle, the aerobic system is always trainable and, before the onset of the growth spurt, healthy, active kids are 'aerobic machines' (Bar-Or, 2003). While aerobic training activities are the focus, young sailors can have a short attention span, so activities should be changed frequently to ensure interest is maintained.

STRENGTH

Strength gains in pre-puberty are possible, although they are mainly in relative strength (percentage improvements, relative to own body weight), rather than in absolute strength. At this stage, the focus should be strength gains through improvements in motor coordination and morphological and neurological development and adaptation. Coaches should be aware that structural changes, such as muscle hypertrophy, are not expected for sailors in this stage.

Strength training can be introduced at a very early training age, using the sailor's own body weight, together with implements such as medicine and Swiss ball. Bouncing medicine balls can also contribute to improvement in motor coordination. Coaches must ensure all exercises are performed with correct form and in a safe manner. Swiss ball exercises also contribute to core stabilization and upper and lower body strength development, in addition to developing balance.

FUNDAMENTALS & FIRST CONTACT

Age Range: Male 6-9 years, Female 6-8 years (*see note on age on page 10)

Physical preparation

SPEED

In a young sailor's development, there are two windows of optimal trainability for speed:

females aged 6-8 and 11-13

males aged 7-9 and 13-16 (Viru et al 1998).

Peak speed velocity (PSpV) includes linear, lateral and multidirectional speed, change of direction, agility and segmental speed. The first window for speed training of both females and males is not an energy system development, but central nervous system (CNS) training.

The CNS should be challenged with low volume and short-duration speed training. At this stage, anaerobic alactic power and capacity interval training is not appropriate. Speed should be trained at every coaching session. The optimal time to train speed is near the end of the warm-up, or immediately after it, as the sailor does not have any CNS or metabolic fatigue.

The training volume should be low and full recovery between exercises and sets is essential. While windows of optimal trainability exist and should influence the emphasis of training, speed training may take place regularly all-year round.

SKILL

Club programming and coaches attention should focus on the mastery of fundamental movement and sports skills. The introduction of these activities is crucially important for future athletic development.

For more information, reference the generic long term athlete development guide, Developing Physical Literacy found at www.canadiansportforlife.ca

Introduce sailors to the variability of the sailing environment, and promote decision making skills.

Physical preparation

SUPPLENESS

The basics of flexibility training should be introduced through fun activities. Flexibility is a key training and performance factor. Optimal individual and sailing-specific flexibility should be established at a very early training age. The window of optimal trainability for flexibility is 6–10 years of age.



Flexibility training should take place once the muscles have been warmed up. For flexibility improvement, five to six sessions per week is required. For maintenance of flexibility, two to three sessions of flexibility training each week, or flexibility training every other day, will be sufficient. Stretching should not be done on rest days to allow full recovery and restoration.

Mental preparation

- Develop self-confidence and self-esteem.
- Introduce focusing techniques.
- Introduce relaxation techniques.
- Introduce coping strategies associated with learning new skills.

Program characteristics

- A variety of instruction methods and games should be used.
- Provide structured and structured time, under supervision.
- Create opportunities to have fun in small groups.
- Introduce sailing as a sport and recreation activity.

Specialized Equipment

- Properly fitted lifejacket or PFD
- “Shorty” wetsuit

Recommended Programs

- Learn-To-Sail programs provided by sailing and yacht clubs.

LEARN TO SAIL FAST!

Age Range: Male 9 to 12, Female 8 to 11 years old (*see note on age on page 10)

Key Objectives

- Enhance basic movement skills through sailing and other complimentary sports.
- Further develop sailing skills.

General characteristics

- Introduce 12 month sailing team program from local area club.
- Integrate club based skill development challenges.
- Consistently demonstrate all sailing skills in various conditions.
- Introduce dry-land training routines, emphasizing group interaction, team building and social activities.
- Introduce basic mental skills training.
- Create local inter-club group training opportunities.
- Provide varied instruction, games etc.
- Demonstrate proper technique.
- Co-host one training camp per year with a neighbouring club.

Considerations for Sailors with a Disability

- Appropriate development boat needs to be selected for the sailor, based on physical characteristics of the sailor and their disability.
- Coaches with specific adaptive sailor training are required to properly introduce sailors to the technical requirements of their chosen boat.
- Competitions need to be available for sailors with a disability, or be integrated into existing regattas.
- Clubs must continue to create an accessible environment, and wherever possible should supply boats appropriate for disabled sailors.

Sailing Skills

INITIATION AND DEVELOPMENT OF BOAT HANDLING SKILLS

- Rudderless sailing, sail adjustments at marks and heavy air sailing.
- Roll-tacking, roll-gybing, mark rounding, 360/720, stopping, accelerating under all conditions.

TECHNIQUES FOR SPEED

- Introduction of balance/direction/propulsion using body/helm/sails in light, moderate and heavy wind.
- Introduce skills on all points of sail in light and moderate wind, and develop in heavy wind.
- Develop and document rig and sail trimming skills according to wind and water conditions.
- Development of surfing and planing techniques.
- Develop down-speed manoeuvres to support starting and mark rounding techniques.

DEVELOP TECHNIQUES TO LEARN COMPETITION

- Starting skills: transits, favoured end of the line, port-tack starts, ability to cross line at start signal, start drill, tactics on the line. Introduce with smaller fleets.
- Factors affecting surface wind direction: clouds, shorelines, islands, sea breezes, puffs, lulls.
- Factors affecting current force and direction, reading direction and using current in racing.
- Detection of headers and lifts using boat angle.
- Appropriate positions relative to fleet/competitors in a header or lift, and sailing in clear air.
- Basic racing rules – port, starboard, windward, leeward, tack overlap, rounding marks.
- Detection of lay lines.



LEARN TO SAIL FAST!

Age Range: Male 9 to 12, Female 8 to 11 years old (*see note on age on page 10)

Sailing Skills

INTRODUCTION AND DEVELOPMENT OF TACTICAL KNOWLEDGE AND SKILLS

- Pre-start procedures and decision making.
- Mark-rounding tactics with a boat and a group of boats.
- Basic upwind, downwind tactics.
- Decision making processes.

INTRODUCTION AND DEVELOPMENT OF STRATEGY

- Strategy related to a race course.
- Basic rules and sport ethics.

PROGRAM MANAGEMENT

- Introduce use of personal training log.
- Develop basic gear maintenance techniques.
- Introduce principles of nutrition, hydration, rest.
- Meets social & family needs.
- Training and competition scheduling does not conflict with school.
- Annual cycle documented – includes social calendar.
- Combines training, racing & volunteering.
- Promotes up to 12 month program.
- Offers skill development opportunities.
- Promotes a fun, safe, progressive and social image to parents and young sailors.

Competition

- Club races.
- Local inter club racing.
- One race on the Provincial Sailing Association youth circuit.



Boats

- Recommendation that boats to be supplied by club program.
- Check current Equipment Pathway on sailing.ca

Physical Preparation

Since this is the major skill learning stage, a range of movement skills should be emphasized. Stamina, strength, speed and suppleness should be further improved through sequenced and integrated training. Although there is less interference between training adaptations of different factors during the Fundamental and Learn to Sail Fast! stages, a well structured and periodized training, competition and recovery program, should further optimize the different training effects.

STAMINA

At this stage, endurance should be maintained through fun activities.

STRENGTH

Short-term strength training at this time does not seem to interfere with endurance training. However, unlike adults, the maintenance of strength gains cannot be achieved with one session per microcycle. Strength training should be done at least twice a week, but should not exceed 30 minutes per session at this stage. Use Swiss balls, medicine balls and own body weight to enhance strength development.

SPEED

The development of speed should be undertaken at every training session in a similar way to the Fundamental stage. It is recommended this should be towards the end of the warm-up, or immediately after it, when young sailors are not tired. Training volume should be low and there should be full recovery between exercises and sets. Speed training and segmental speed training should be taking place regularly, all-year round, irrespective of the windows of trainability or the phase of the annual plan.

LEARN TO SAIL FAST! (*see note on age on page 10)

Age Range: Male 9 to 12, Female 8 to 11 years old

Physical Preparation

Skill

Coaches must integrate fundamental movement and sport skill instruction between the ages of 8–11 in girls and 9–12 in boys. If these skills are not developed before puberty, they may not be fully recaptured at a later time. Lack of mastery of movement skills at this stage will require future remedial work, detracting from advanced skill development required for performance.

Suppleness

This stage is a sensitive period of trainability to improve flexibility. Where flexibility improvement is required, training should take place five to six times per week. Where maintenance of flexibility is the objective, two to three sessions of flexibility training each week, or every other day, be sufficient. Stretching should not be done on rest days to allow full recovery and restoration.

Mental training

- Acquisition and development of self confidence and self esteem.
- Introduction to basic goal setting.
- Integration of concentration skills.
- Introduction of mental skills training through coaches.

Specialized Equipment

- Personal floatation device (PFD)
- Short wetsuit

Recommended Programs

- Yacht and sailing club programs



LEARN TO TRAIN (*see note on age on page 10)

Age Range: Male 12 to 16, Female 11 to 15 years old

Key Objectives

- Refinement of boat handling and technique for speed.
- Consolidation of racing skills.
- Fitness development - prioritization of aerobic capacity, speed and strength.
- Transition into appropriate boat according to rate of growth.
- At the end of this stage, self-coaching techniques will be introduced.

General Characteristics

- Consistent coaching and development of a coaching team.
- Stage of the major growth spurt.
- Refine skills as the sailor grows physically.
- Introduce individualized training programming based on maturation levels.
- Join competitive training group.
- Provide training opportunities outside of home region.
- Introduce ancillary capacities.
- Formalize mental skills training.
- Individual identity becomes associated as a sailor and an athlete.
- Familiarize with regional sport science service venues and their staff.

Considerations for Sailors with a Disability

- Competitions need to be available for sailors with a disability, or be integrated into existing regattas.
- Clubs must continue to create an accessible environment, and wherever possible should supply boats appropriate for disabled sailors.
- Integration of programs for sailors with a disability in regional training centres should be introduced.



Sailing Skills

Coaches need to provide a period of adaptation for sailors transitioning from learning boat to development boat.



BOAT HANDLING

- Refinement of rudderless sailing, sail adjustments at marks and heavy air sailing.
- Refinement of roll-tacking, roll-gybing, mark rounding, 360/720, stopping, accelerating under all conditions.

TRANSITION SAILORS TO SINGLE-HANDED DEVELOPMENT BOAT

- Consolidation of rudderless sailing, sail adjustments at marks and heavy air sailing.
- Consolidation of roll-tacking, roll-gybing, mark rounding, 360/720, stopping, accelerating under all conditions.

INTRODUCTION TO DOUBLE HANDED AND BOARD

- Toward the end of this stage, the coach should initiate the sailors to basic boardsailing and double handed class sailing techniques so that they are in a better position to select class in future stage of development.

TECHNIQUES FOR SPEED

SAILORS IN LEARNING BOAT

- Refinement of balance/direction/propulsion abilities using proper combination of body/helm/sails in all conditions.
- Refinement of sailing abilities on all points of sail in all sailing conditions.

TRANSITION SAILORS FROM LEARNING BOAT TO DEVELOPMENT BOAT

- Refinement of balance/direction/propulsion abilities using proper combination of body/helm/sails in light and moderate conditions & consolidation in heavy condition.
- Consolidation of sailing abilities on all points of sail in light and moderate conditions and development heavy air.
- Consolidation of abilities to properly rig and trim sail according to conditions.
- Refinement of surfing and planing techniques.

LEARN TO TRAIN (*see note on age on page 10)

Age Range: Male 12 to 16, Female 11 to 15 years old

RACING TECHNIQUES

- Optimization of down-speed abilities to maintain position on starting line, around marks.
- When starting, the sailor consistently:
 - use transits, start at favoured end of the line, & cross line at start signal;
 - win start drills, and perform port-tack starts and tactics on the line in medium size fleets.
- Acquisition of match racing starting techniques.

TACTICS

- Consolidation of mark-rounding tactics with a competitor and a group of competitors.
- Consolidation of basic upwind, downwind and mark rounding tactics including decision making process.
- Introduction and utilization of pre-start routines.

STRATEGY

- When competing, the sailor consistently develops effective strategies for the race course set up, wind and wave conditions.
- When competing, sailor makes strategy adjustments based on changes in race course set up, wind and wave conditions, and placement in the fleet.

PROGRAM MANAGEMENT

- Consolidate use of training log.
- Read technical articles on competitive sailing.
- Introduce protest procedures.
- Utilize basic boat and sailing gear maintenance techniques.
- Utilize principles of nutrition, hydration & rest.

Competition

- Club races
- Provincial development circuits
- Provincial Games
- Provincial Class championship
- CYA Regional championships
- Class district championships
- Toward the end of stage Canadian, USA, North American championship only if hosted in own region of Canada.

Boats

- In this stage the sailor should preferably own his/her own single-handed boat, which class depends on their stage of development, and physical size.
- Clubs should invest in doublehanded boats to allow sailors in this stage to be introduced to double handed and board sailing.
- Check current Equipment Pathway on sailing.ca

Physical Preparation

The foundation of aerobic and strength fitness for female sailors (11-15 years) and aerobic fitness for males (12-16 years) is formed at this stage. Both sexes should develop further speed capacities, taking advantage of the second speed window of trainability in speed training. Sailors are able to internalize the advanced techniques of physical, technical and recovery training, and improve their knowledge of ancillary capacities as they mature. Although this knowledge was introduced at the Learn to Sail Fast! stage, teaching can be expanded due to the sailor's increased cognitive abilities.

The majority of sailors will reach puberty during this stage. The onset of the growth spurt should be used as a reference point to design individualized programs for the pubertal sailor. Decisions on boat selection at this stage should include careful consideration of the sailors potential physical attributes, based on the observed age of the growth spurt, and genetic possibilities based on observable traits of the parents.

LEARN TO TRAIN (*see note on age on page 10)

Age Range: Male 12 to 16, Female 11 to 15 years old

Physical Preparation

STAMINA

The onset of the growth spurt contributes to accelerated adaptation in the aerobic system. During training, females aged 11–15 and males aged 12–16 should be grouped according to biological maturation, rather than chronological age. Early and late maturation in young adolescents ages 10 to 16 may mean a two to five year gap in biological maturation.

Training should be organized so that early, average and late maturers are in different training groups, or have their own training program that matches their developmental level and particular needs. This would allow adaptation to training based upon maturation levels and not chronological age. This is important as undertraining and overtraining will be more likely if all sailors train together. In this case, only a percentage of each chronological age group will be properly trained. In addition, the sensitive period of accelerated adaptation of the aerobic system may be compromised. Early, average or late maturers should be regrouped regularly after training with their peer group. Removing young sailors from their peer group will contribute to negative mental and emotional development.

Non-weight-bearing aerobic activities at this stage help prevent injuries. Most of the aerobic training for this age group should be in the form of non-weight-bearing activity. In addition, ultra short interval training can be used as a weight-bearing activity, with the bonus that this develops the aerobic system in parallel with the anaerobic system.

SKILL

Sailors experience rapid growth during adolescence. This growth includes changes in leg, trunk and arm length, with a resultant change in the centre of gravity. However, the body does not grow in proportion: different parts of the body grow at varying rates and times. As a result, movement skills and technical skills should be carefully monitored during the growth spurt, because sailors may experience temporary deterioration of coordination in the execution of skills. Coaches should be patient with growing sailors during and immediately after the growth spurt and explain to them what is happening as they mature.

STRENGTH

The onset of the growth spurt will determine the extent and frequency of weight training during the Learn to Train stage. The sensitive periods of accelerated adaptation to strength training will occur towards the end of, and immediately after the growth spurt for females, and 12–18 months after for males.

With the onset of the growth spurt, proper free weight and Olympic lifting techniques should be introduced to sailors by appropriately trained experts. Sailors should master basic lifting techniques as an injury prevention measure, and to enhance optimal adaptation to strength training. The increase in body mass will occur after the growth spurt. Coaches should monitor their sailors for the onset of the growth spurt, and the rate of growth through this period. These measurements accurately indicate the proper time to implement free-weight programmes.

SPEED

The second speed window for accelerated adaptation is 11–13 years of age for females and 13–16 for males. Although central nervous system training remains important, anaerobic alactic power (0-5 seconds) and anaerobic alactic capacity (5-20 seconds) interval training should be introduced sailors at the Learn to Train stage. For females, this should be during the first part of the stage and for males, during the latter part. Progressive overloading is essential for adaptation to take place. Linear, lateral and multidirectional movement speed should be trained by proper sequencing of speed work with other training activities.

Speed should be trained all-year round, regardless of the different phases and objectives of the annual plan. This should occur at the end of the warm-up, when there is no metabolic or nervous system fatigue present.

SUPPLENESS

Flexibility should be monitored carefully in the Learn to Train stage. Static stretching and proprioceptive neuromuscular facilitation (PNF) should be complemented by active isolated stretching when required. During the Learn to Train and Learn to Compete stages, it is recommended that stretching sessions be separated from other training activities. In principle, static stretching and PNF should be performed two hours prior to, or two hours after, training and/or competition activities.

LEARN TO TRAIN (*see note on age on page 10)

Age Range: Male 12 to 16, Female 11 to 15 years old

Mental Training

SELF DETERMINATION

- Refining goal setting skills and understanding the differences between process and outcome goals.
- Self awareness through journaling.
- Consolidate concentration and relaxation skills.
- Develop visual / imagery techniques.
- Introduction to group sessions with professional mental trainers.
- Learn to manage expectations.
- Introducing coping mechanisms to deal with competitions stressors.
- Managing with performance setbacks.
- Ideal performance states.

Specialized Equipment

- PFD
- Short Wet suit, Long Wet suit
- Spray Top, Hiking Shorts, Sailing boots



181822
181855

CAN
CAN

LEARN TO COMPETE (*see note on age on page 10)

Age Range: Male 16-20 +/- yrs, Female 15-19 +/- yrs

Key objectives

- Boat sampling stage: Engagement at competitive level in other classes.
- Transition targeted into Olympic Classes.
- Optimize class-specific fitness.
- Optimizing use of on-water time.
- Develop further ancillary capacities.
- Training is priority over racing.
- Training is with training groups.

General characteristics

- Coaches should focus on process-based, not outcome-based approach with sailors at this stage. Primary emphasis should be individual skill mastery.
- Coaches should educate sailors on how to manage external feedback that is outcome-based. Sailors must learn to manage expectations, recover from setbacks in a productive manner, remaining focused after positive experience, such as a breakthrough performance.
- Introduce integrated support team (IST) services through regional Canadian Sport Centre and National team monitoring systems.
- Utilize individual training programming.
- Boat class and/or position (helm or crew) is selected based on sailor's characteristics and stage of development.
- Training time is apportioned equally between skill practice, physical conditioning and competition-specific training.
- Double periodization.

Considerations for Sailors with a Disability

- At this stage the sailor should be owning their own boat and transitioning into the single, double or triple handed Paralympic classes.
- Appropriate coaching needs to be available to introduce the sailors to technical knowledge of boats and the international classification system.

Competition

- CYA National Sailing Championships - age/stage appropriate division
- Canadian class championships; national multi-class championships
- Canada Games
- North American-based Warm Training Session in midwinter
- ISAF World junior championships
- Olympic Class sampling with North American (NA) class championships a priority (Note: Miami OCR is not a North American event except in Laser class)
- National Qualifier Regatta(s)
- World class championships for identified classes when hosted in North America. Top ranked domestic sailors should consider when outside North America
- One ISAF Grade 1 event per season. Top ranked domestic sailors should consider multiple events.
- Club Races in various classes

Boats

- Boat supplied by sailor.
- At the beginning of this stage, sailors have transitioned from the learning boat to development boat. Toward the end of the stage, sailors should have sampled multiple Olympic or Paralympic classes, and are recommended to choose a class with strong North American fleet sizes to allow continued development of their racing skills.
- Check Equipment Pathway on sailing.ca

LEARN TO COMPETE (*see note on age on page 10)

Age Range: Male 16-20 +/- yrs, Female 15-19 +/- yrs

Sailing Skills

GENERAL

- At the end of this stage the sailor is able to consistently execute complex sailing and racing skills in a variety of training environments.
- At this stage the skills are refined for single handed and developed for double handed and / or board sailing.
- At the end of this stage the sailor understands how to optimize equipment to affect performance.
- Optimizing boat handling, techniques for speed, and racing techniques in all conditions, in training and racing environments.
- Introduction of Olympic / Paralympic race formats – includes medal race format.

TECHNIQUES FOR SPEED

- Utilizing racing as high quality training opportunity.
- Extensive work is done on understanding sail shape, sail design and masts.
- In a variety of the training environment, refine:
 - close-hauled speed techniques – handling waves, ooching, rocking;
 - offwind speed techniques – surfing, planing, sailing by-the-lee, overtaking waves, hooching, rocking;
 - adjustment of rig and board trim on mark rounding;
 - adjustment of rig and board trim under all conditions on all points of sail.

RACING TECHNIQUES

- Optimize application of racing rules, factors affecting wind and current direction
- Optimize drills and pre-start strategic planning
- 75% success rate in small-fleet starts
- 75% success rate in large-fleet starts
- 75% success in recognition and application of tactical decision-making in all sections of a race course
- Optimize match racing techniques
- Optimize ability to read wind and recognize trends in wind shifts – oscillating, persistent, progressive
- Optimize on-wind and off-wind fleet/wind/current positioning

PROGRAM MANAGEMENT

- Develop gear selection (sails, masts, centreboard) based on sailor or crew characteristics
- Ongoing use of training log
- Develop skills to present and defend position in protest room
- Continue to access outside knowledge resources to improve performance
- Develop performance support team
- Master advanced gear and hull maintenance techniques
- Master application of nutrition, hydration and rest in everyday life
- Optimize travel and time management
- Develop knowledge of annual training and competition planning
- Develop awareness in campaign budgeting
- Learn to self-evaluate in both training and competitive situations

LEARN TO COMPETE (*see note on age on page 10)

Age Range: Male 16-20 +/- yrs, Female 15-19 +/- yrs

Physical Preparation

Physical preparation at the learn to compete stage will be based on diagnostics and testing to identify individual needs.

Monitor the growth spurt at the beginning of the stage to ensure optimal endurance and strength training are properly sequenced. Aerobic power should be trained after the deceleration of growth and strength 12-18 month later for males or at the onset of menarche for female sailors.

The following components will characterize fitness preparation during this stage:

- Gradually developing skills and attitudes required to excel in high-level sailing.
- Generally 50% of time devoted to training, 50% to competition-specific training.
- Early in this stage, sailors should focus on balanced and general physical development.
- Introduction to taper and peaking strategies.
- Middle to end of this stage, sailors should develop muscle qualities and specific energy paths targeted at the crew position and boat class they are pursuing.
- Refine performance factors such as warm-up, cool-down, stretching techniques, hydration, nutrition, recovery, regeneration, mental preparation, periodization, competition drills.
- Technical and physical training and mental preparation programs are personalized.

Mental Training

- At the learn to compete stage, individual sailors should be learning to understand how to create an optimal performance environment.
- Building from the previous stage, goal setting and motivation should be internally driven, with a self-determination to succeed.
- Individually, or as part of Provincial, Regional or National group, coordinate sports sciences team, meet with sports science practitioners to develop monitoring and programming protocols.
- Increased level of self-awareness: Appreciation for psychological strengths and weaknesses both in training and competition.
- Composure, self-control, ability to bounce back from performance and training setbacks.
- Gain a comprehensive understanding of the critical factors that affect the sailor's ideal performance state.
- Transitioning period, time management skills, adjustment to demands of Olympic/Paralympic class competition.
- Recognition of level of commitment required to reach top world ranking within set time period.
- Seeking out crew, mentors, coaches and required support team members.
- Coping with increased demands of time, incorporating university, etc.
- Openness to learning, on and off water, in a one-on-one and group level.
- Learning how to engage coaches and training partners by asking open-ended and relevant questions.
- Abilities to work effectively within training group as well as independently, ability to learn from coaches with different perspectives.
- Focusing routines, Visualization, Relaxation, Energizing and Centering techniques.

LEARN TO COMPETE (*see note on age on page 10)

Age Range: Male 16-20 +/- yrs, Female 15-19 +/- yrs

Training Time/Program Duration

On land training time – Focus on fitness, sail design, mast testing, reading

On water training time is broken into two categories:

- Training on own or with a coach - 2 to 4 hrs per day;
- Training camps - 5-6 hrs per day over 2 sessions.

MONTH	HRS/MONTH FITNESS (INCLUDES OTHER SPORTS)	HRS/MONTH ON-LAND SAILING GROUP ACTIVITY SPECIFIC ACTIVITY & SAILING FITNESS/ OTHER	HRS/MONTH ON-WATER SAILING
January	18 – 24	4 - 8	0 - 20
February	18 – 24	4 - 8	0 - 20
March	18 – 24	4 - 8	0 - 25
April	18 – 24	4 - 8	5 - 30
May	10	20 - 40	8 - 50
June	10	20 - 40	8 - 50
July	10	20 - 40	30 - 50
August	10	20 - 40	30 - 50
September	18 – 24	8 - 12	8 - 45
October	18 – 24	8 - 12	5 - 30
November	18 – 24	4 - 8	0 - 20
December	18 – 24	4 - 8	0 - 20

Specialized Equipment

- Properly fit lifejacket or PFD
- Short Wet suit, long Wet suit
- Spray Top, Hiking Shorts
- Sailing boots, Board Sailing Harness



TRAIN TO COMPETE

Age Range: Male and Female 17 +/- yrs (*see note on age on page 10)

Key Objectives

- Compete in Olympic Class, Paralympic Class and consistently achieving top 50% at World Championships.

General Characteristics

- Sailors are registered annually with their regional Canadian Sport Center.
- Utilize individualized IST services on a semi-regular basis (4-6 times per year).
- Optimizing the use of training group.
- Optimizing individual training programming.
- Develop further ancillary capacities.

Considerations for Sailors with a Disability

- Sailors with a disability reaching this stage are expected to follow a pathway consistent with the information presented for their able bodied peers.



Competition

- Canadian class championships; national multi-class championships
- Canada Games
- North American-based Warm Training Session in midwinter
- ISAF World junior championships
- Olympic Class sampling within North American class championships
- National Qualifier Regatta(s) – Main Focus
- World class championships for identified classes
- One ISAF Grade I event

Boats

- Boat supplied by participant
- Olympic / Paralympic classes

Sailing Skills

- Sailors focus on the chosen Olympic / Paralympic class.
- Sailing program must be optimized to the individual sailor's needs.
- Sailors continue to refine complex sailing and racing skills consistently in a variety of competition environments.
- Much of the time spent on land training activities should be focused on optimizing physical fitness and on program management.

Program management

- Execute multi-year campaign toward Olympic / Paralympic Games.
- Individual planning in training group environment.

TRAIN TO COMPETE

Age Range: Male and Female 17 +/- yrs (*see note on age on page 10)

Physical Preparation

All systems are fully trainable. Physical preparation will be based on diagnostics and testing to identify individual needs. The following components will characterize fitness preparation during this stage:

- Personalized physical preparation program;
- Enhance aerobic and general muscular endurance and flexibility;
- Consolidate overall maximum strength;
- Enhance skills in heavy air and consolidate speed/technique;
- Consolidate sailing-specific strength and muscular endurance;
- Skipper: quadriceps, hip flexors, foot extensors and flexors, deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles;
- Crew: quadriceps, deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles, foot extensors;
- Board sailor: deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles, foot flexors.



Mental Training

More advanced and self-determinant skills are developed and refined:

- Process over outcome;
- Develop pre-competition routines;
- Associate with good people and methods;
- Use imagery to pre-think skills, tactics and strategy;
- Use imagery to practice skills;
- Set goals;
- Have fun.

PERSONALIZED MENTAL TRAINING PROGRAM

- Preservation of confidence in sailing abilities despite difficulty establishing themselves in the new class.
- Refine self-confidence.
- Perfect concentration.
- Consolidate relaxation and imaging.
- Perfect identification of short-term objectives.
- Consolidate identification of long-term objectives.

FOR CREWS

- Develop communication between crew members.

TRAIN TO COMPETE

Age Range: Male and Female 17 +/- yrs (*see note on age on page 10)

Training Time/Program Duration

MONTH	HRS/MONTH FITNESS (INCLUDES OTHER SPORTS)	HRS/MONTH ON-LAND SAILING GROUP ACTIVITY SPECIFIC ACTIVITY & SAILING FITNESS/OTHER	HRS/MONTH ON-WATER TRAINING & COMPETITION
January	15 – 25	15 - 25	0 - 30
February	15 – 25	15 - 25	0 - 30
March	15 – 25	15 - 25	0 - 30
April	10 – 20	20 - 35	15 - 40
May	10	30 - 50	35 - 55
June	10	30 - 50	35 - 55
July	10	30 - 50	40 - 70
August	10	30 - 50	40 - 70
September	15 – 25	30 - 40	35 - 55
October	15 – 25	15 - 25	15 - 40
November	15 – 25	15 - 25	0 - 30
December	15 – 25	15 - 25	0 - 30



MACDONALD
WOLFS
MACDONALD
WOLFS

CAN ATHENS 2004

TRAIN TO WIN

Age Range: Male and Female 20 +/- yrs (*see note on age on page 10)

Key Objectives

- Consistently achieve top 10 Performances at Olympics, Paralympics, World Championships, World Cups.

General Characteristics:

- Train sailors to peak for major competitions.
- Pentannual planning (5year planning phases). Allow frequent regenerative breaks to preserve passion and perseverance, and manage physical and mental over reaching or burnout.
- Full time commitment to Olympic / Paralympic Sailing.
- Individualizing all aspects of training and performance.
- Optimize use of IST (Integrated Support Team), with specific team members as per class and sailor needs.
- Optimizing sailor's ancillary capacities.

Considerations for Sailors with a Disability

- Sailors with a disability reaching this stage are expected to follow a pathway consistent with the information presented for their able bodied peers.

Competition

- World Championships
- ISAF World Cup
- National Qualifier Regatta
- Olympic & Paralympic Games
- Pan American Games
- North American Class Championships

Boats

- Olympic & Paralympic Classes



Sailing skills

- The program must be maximized to the individual sailor's needs.
- Be at the leading edge of development of the sport.
- Succeed in multi-year campaign toward Olympic / Paralympic Games.
- Ongoing perfection of boat handling, speed techniques, competition techniques.
- Maximize program management.
- Creative variation and improvisation.
- Perfect sailing and competition techniques required for high-level sailing success.

Physical Preparation

All systems are fully trainable. Physical preparation will be based on diagnostics and testing to identify individual needs. The following components will characterize fitness preparation during this stage:

- Personalized physical preparation program;
- Enhance aerobic and general muscular endurance and flexibility;
- Consolidate overall maximum strength, sailing-specific strength and muscular endurance;
- Enhance skills in heavy air and consolidate speed/technique;
- Skipper: quadriceps, hip flexors, foot extensors and flexors, deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles;
- Crew: quadriceps, deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles, foot extensors;
- Board sailor: deltoids (shoulder muscles), biceps, hand flexors, abdominals, lower back muscles, foot flexors;
- Balanced high-intensity high-volume training;
- Enhance muscle qualities and energy paths specific to position and class;
- Multiple periodization with adequate regeneration to prevent physical and mental burnout;
- Enhance warm-up, cool-down, stretching routines; hydration; nutrition; recovery; regeneration; mental preparation; taper and peaking; periodization; competition drills.

TRAIN TO WIN

Age Range: Male and Female 20 +/- yrs (*see note on age on page 10)

Mental Training

PERSONALIZED MENTAL PREPARATION PROGRAM

- In-depth focusing plans, recognition of situational impacts on performance.
- Specific plans for coping with high pressure environments, performance under pressure and on demand.
- Drawing on long established and Strong relationships with multiple array of coaches and IST members.
- Medal Race Performance Plans, resiliency as a skill set discussed and developed.
- Perfect concentration.
- Consolidate relaxation and imaging.
- Perfect identification of short-term objectives.
- Consolidate identification of long-term objectives.

FOR CREWS

- Develop communication between crew members.
- Transition or Exit strategies for post Olympic / Paralympic Games' Trials or Games' experiences should be established at least 6 months in advance of these major competitions.
- Follow up by IST, specifically sport psychology to ensure healthy adaptation and socialization.

Training Time/Program Duration

MONTH	NUMBER/TYPE OF REGATTA	HRS/MONTH ON LAND	HRS/MONTH ON-WATER TRAINING & COMPETITION
January	1 Regatta	40 - 60	50 - 70
February	1 Regatta	40 - 60	50 - 70
March		40 - 60	50 - 70
April		25 - 45	60 - 80
May	Training Regatta	25 - 45	60 - 80
June	Training Regatta	15 - 35	85 - 105
July	Training Regatta	15 - 35	75 - 95
August	Training Regatta	15 - 35	65 - 85
September	Perform Event*	15 - 35	45 - 65
October		15 - 35	20 - 40
November		40 - 60	25 - 45
December	1 Regatta	40 - 60	25 - 45

Sailors to work on optimization of boat set up throughout season.



WINNING FOR A LIVING

Age Range: Male and Female 20 +/- yrs (*see note on age on page 10)

Key Objectives

- Consistent international podium performances at Olympic, Paralympic, World Championships and World Cups.

General Characteristics

- There are very few sailors who reach this stage, so individualized programming is based on strengths and weaknesses of the sailor.
- Training is structured around targeted performance events while maintaining elite skills.
- Address all variables specific to targeted performance event and venue.
- Total Focus on sailing performance.
- Maximize ancillary capacities.
- Maximize use of IST.

Considerations for Sailors with a Disability

- Sailors with a disability reaching this stage are expected to follow a pathway consistent with the information presented for their able bodied peers.

Competition

- Olympic, Paralympic, World Championships and World Cups

Boats

- Chosen Olympic and Paralympic class
- Keelboat and one-design classes



Sailing skills

- Be at the leading edge of development of the sport.
- Ongoing perfection of boat handling, speed techniques, competition techniques.
- Maximize program management.
- Creative variation and improvisation.

Physical Preparation

- All systems are fully trainable, diagnostics, testing will determine training emphasis. The planning process is guided by the principles of periodization. Multiple periodization is the framework of preparation.
- Maximize fitness preparation and maintenance of fitness.
- All of the sailor's physical, technical, tactical (including decision making skills), mental and personal and lifestyle capacities are fully established and the focus of training has shifted to the maximization of performance.

Mental Training

- Very similar to Train to Win stage, only more refined with fewer IST priorities.
- Large investment by national IST members, travel to competitions as required. IST challenged by sailors and coaches to innovate, emphasizing collaboration and creativity. National IST is the main driving force, supported by the regional Canadian Sports Centres (CSCs).
- Highly individualized strategies for repeating top performances, balanced mindsets that comes with high expectations, defending titles.
- Planning and support for switching classes, or crews/skippers. IST role may change slightly in these instances.
- Highly trusted group of advisors and IST members, ability to grow to meet new challenges, innovative focus for IST.

SAILING FOR LIFE

Age Range: Sailors may enter this stage at any age

Key Objectives

- Enjoyment of sailing.
- Continue racing.
- Contribute to sailing community development as coaches, officials, program leaders, administrators or livelihood in sailing industry.
- Lifelong physical activity and participation in sport.
- Introduce friends and family to the sport of sailing.
- Sailing considered the main outlet for leisure activity.

General Characteristics

- Enjoyment of sailing and active lifestyle.
- Moving from competitive sport to volunteer involvement such as officials, judges or administrators.
- Moving from one aspect of sailing to another for example a dinghy racer takes up cruising, or becomes a coach.
- Moving from a highly competitive sport to a lifelong competitive sport through age group races (Master's Teams).
- Moving to sport related careers such as coaching, sport administration, sport media, small business enterprises or to the marine industry.
- Sport Parenting – healthy transition from competitive sailor & / or sport involvement to providing appropriate levels of involvement in supporting their children's participation and development.
- Participation as "amateur" on race programs – see ISAF sailor categories and Offshore.



Training Time/Program Duration

60 minutes moderate activity or 30 minutes intense activity daily recommended.

Boats

- In this stage, some sailors own their own boat.
- Sailors looking for crew positions are able to access opportunities through local club programs.
- A variety of boat classes and types are popular at this level.
- Racing is available in many boat classes, with competitive fleets distributed geographically across regions of Canada.

Recommended Programs

- Sailing/Yacht club evening and weekend racing program
- Sailing/Yacht club or sailing school membership and participation programs
- Volunteer programs in event management
- CYA Coach training program
- CYA Official training programs (Race Management Officers, Judges, Umpires, Measurers, Classifiers)
- Leadership positions at Club, Provincial Sailing Association, Class Association, CYA



SAILORS WITH DISABILITIES

Not Different But in Addition

Disabled sailors must be considered first and foremost as sailors. For this reason, virtually everything outlined in the able-bodied Long Term Sailor Development model is applicable to a disabled sailor.

The period following acquisition of a disability is one of transition and great change for most individuals. Some activities in which they were previously engaged may no longer be open to them in the same form, and they may not be aware of the many sporting and recreation activities that are available.

Sailing to Win ~ Sailing for Life has integrated awareness and first point of contact recommendations into the Active Start and Fundamentals stages. Our clubs, instructors and coaches must become informed on the range of activities in which disabled sailors can participate, and must consider ways to make their sailing environment more accessible. A positive first experience can go a long way to engaging persons with a disability in both competitive and recreational sporting activities.

Within this document, you will find specific considerations for each stage that relates to engaging sailors with a disability.

Please note that suggested age ranges may not correlate for sailors with a disability entering our sport, and the rate of progress through the stages may differ from able bodied sailors.



Considerations for Sailors with Disabilities

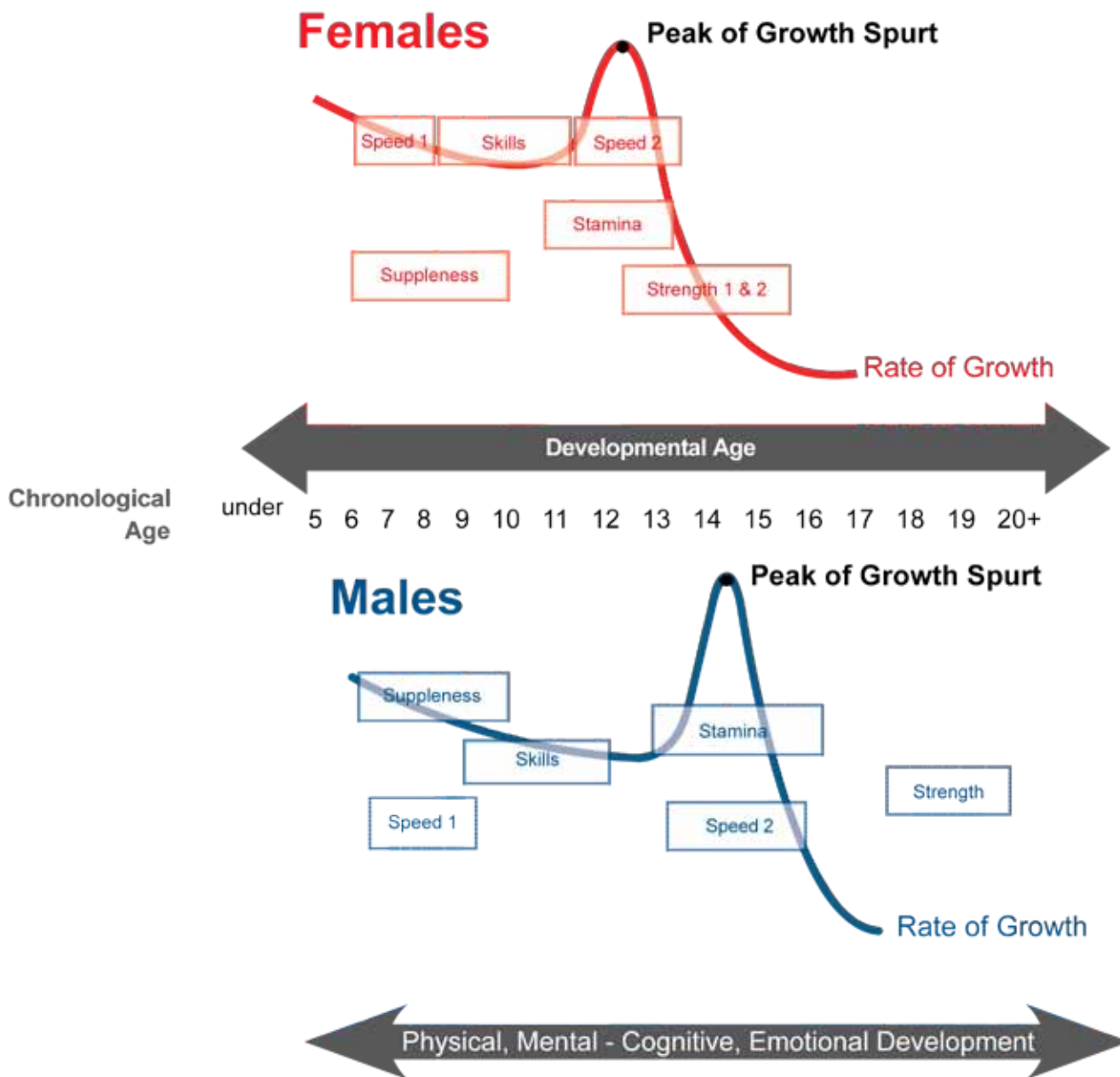
Other consideration when developing sailors with disabilities include:



- Sailors may have been born with a disability (congenital disability) or may have acquired a disability later in life. Determining this can enable a coach to provide more effective interventions;
- Children with a congenital disability may not have the same opportunity to learn fundamental movement skills because they do not always have the same opportunities for vigorous, physical play during their early years;
- Parents or caregivers can be overly protective of a disabled child, limiting the child's opportunity to develop fundamental movement skills to their fullest potential;
- Many sailors with a disability require adapted equipment or facilities to take full advantage of their athletic ability and to minimize the sport-performance impact of their disability;
- Because there may be only a few other sailors with a disability with the same type and/or level of disability, access to appropriate competitive experiences may be challenging;
- Some sailors with a disability require personal care support, interpreters, and other personnel not found in able-bodied sport;
- Specific disabilities may advance or slow development for any given chronological age.

OPTIMAL WINDOWS OF TRAINABILITY

Figure 8 PacificSport - Optimal Windows of Trainability (Balyi and Way, 2005)



All Systems Are Always Trainable!

INFORMATION FOR PARENTS

Canadian Sport for Life Long-Term Athlete Development (LTAD) has been produced by sport experts with many years of experience, working with beginner to national team athletes. It is based on the components of Physical Literacy and It has been adopted by Sport Canada and all provincial and territorial governments. The components of Canadian Sport for Life are not exclusive to athletes; they are for every participant.

The result of sailing's long term sailor development implementation should be a healthier, more active sailing community across Canada, along with improved performances from our competitive sailors as they represent Canada around the world.

CONSIDERATIONS FOR PARENTS

OVER COMPETING AND UNDER TRAINING

Many athletes spend too much time traveling, competing and recovering from competition and not enough time preparing for it.

TOO MUCH EMPHASIS ON WINNING AT YOUNG AGES

A focus on short term results rather than long term skill development leads athletes and coaches to trade off the development of skills for specific competition tactics focused on results.

INAPPROPRIATE TRAINING PROGRAMS

Too often, adult training programs are imposed on children and boys programs used for girls. Children are not small adults and girls develop differently than boys. Younger athletes (6 to 8/9 years) need to spend more time developing basic movement skills and then (8/9 to 11/12 years) sport specific skills. As athletes get older, the focus should gradually shift towards fitness and tactics.

SPECIALIZATION

As athletes get older, they will need to specialize in fewer sports if they are to be successful. Younger athletes should participate in several sports and all sports should spend some time developing basic skills such as running, jumping, throwing, balance, agility, coordination and speed. An all around athlete will have the ability to play a variety of sports well and specialize later. An early focus on just one or two sports often leads to injuries, burn-out and limited skill development.

LTAD TERMS

ADAPTATION refers to a response to a stimulus or a series of stimuli that induces functional and/or morphological changes in the organism. Naturally, the level or degree of adaptation is dependent upon the genetical endowment of an individual. However, the general trends or patterns of adaptation are identified by physiological research, and guidelines are clearly delineated of the various adaptation processes, such as adaptation to muscular endurance or maximum strength.

ADOLESCENCE is a difficult period to define in terms of the time of its onset and termination. During this period, most bodily systems become adult both structurally and functionally. Structurally, adolescence begins with an acceleration in the rate of growth in stature, which marks the onset of the adolescent growth spurt. The rate of statural growth reaches a peak, begins a slower or decelerative phase, and finally terminates with the attainment of adult stature. Functionally, adolescence is usually viewed in terms of sexual maturation, which begins with changes in the neuroendocrine system prior to overt physical changes and terminates with the attainment of mature reproductive function.

ANCILLARY CAPACITIES refer to the knowledge and experience base of an athlete and includes warm-up and cool-down procedures, stretching, nutrition, hydration, rest, recovery, restoration, regeneration, mental preparation, and taper and peak. The more knowledgeable athletes are about these training and performance factors, the more they can enhance their training and performance levels. When athletes reach their genetic potential and physiologically cannot improve anymore, performance can be improved by using the ancillary capacities to full advantage.

CHILDHOOD ordinarily spans the end of infancy — the first birthday — to the start of adolescence and is characterized by relatively steady progress in growth and maturation and rapid progress in neuromuscular or motor development. It is often divided into early childhood, which includes pre-school children aged 1 to 5 years, and late childhood, which includes elementary school-age children, aged 6 through to the onset of adolescence.

CHRONOLOGICAL AGE refers to “the number of years and days elapsed since birth.” Growth, development, and maturation operate in a time framework; that is, the child’s chronological age. Children of the same chronological age can differ by several years in their level of biological maturation. The integrated nature of growth and maturation is achieved by the interaction of genes, hormones, nutrients, and the physical and psychosocial environments in which the

individual lives. This complex interaction regulates the child's growth, neuromuscular maturation, sexual maturation, and general physical metamorphosis during the first 2 decades of life.

CRITICAL PERIODS OF DEVELOPMENT refers to a point in the development of a specific behaviour when experience or training has an optimal effect on development. The same experience, introduced at an earlier or later time, has no effect on or retards later skill acquisition.

DEVELOPMENT refers to "the interrelationship between growth and maturation in relation to the passage of time. The concept of development also includes the social, emotional, intellectual, and motor realms of the child." The terms "growth" and "maturation" are often used together and sometimes synonymously. However, each refers to specific biological activities. Growth refers to "observable, step-by-step, measurable changes in body size such as height, weight, and percentage of body fat." Maturation refers to "qualitative system changes, both structural and functional in nature, in the organism's progress toward maturity; for example, the change of cartilage to bone in the skeleton."

DEVELOPMENT BOAT is a class of boat used to develop skills in speed, boat handling, manoeuvrability, and race. Often referred to as Olympic/Paralympic development class boat. Check Equipment Pathway on sailing.ca

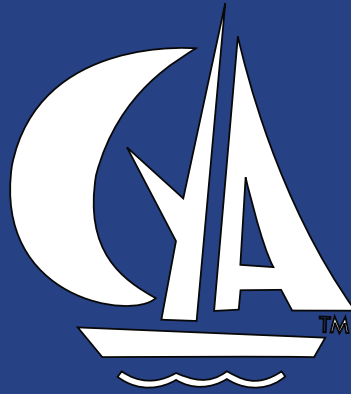
LEARNING BOAT is a class of a boat used to establish physical literacy and the learning of sailing skills in programming. Check Equipment Pathway on sailing.ca

PEAK HEIGHT VELOCITY (PHV) is the maximum rate of growth in stature during growth spurt. The age of maximum velocity of growth is called the age at PHV.

PEAK STRENGTH VELOCITY (PSV) is the maximum rate of increase in strength during growth spurt. The age of maximum increase in strength is called the age at PSV.

PEAK WEIGHT VELOCITY (PWV) is the maximum rate of increase in weight during growth spurt. The age of maximum increase in weight is called the age at PWV.

PHYSICAL LITERACY refers to the mastering of fundamental motor skills and fundamental sport skills.



Canadian Yachting Association
Association canadienne de yachting



www.sailing.ca