



National *NextGen* Testing and Monitoring Strategy 2021 – 2024

The following is an overview of Rowing Canada Aviron's (RCA) NextGen Testing and Monitoring strategy for the 2024 Olympic and Paralympic quadrennial.

Information contained in this document applies to athletes seeking selection or invitation to programs overseen by RCA and its partners. This includes but not limited to;

- U23 and Junior National Teams
- Sport Canada Athlete Assistance Program – Development Carding
- Provincial* Teams and Athlete Assistance Programs
- NextGen Performance Centres and NextGen Performance Programs
- Any other events or programs overseen by RCA's NextGen Program

**Throughout the document there are references to “Provincial” requirements. These apply to provinces that have partnered with RCA to deliver either a NextGen Performance Centre or NextGen Performance Program. Athletes should consult their appropriate Provincial Program and contacts for additional requirements.*

Key shifts are as follows.

- 1) Identifying the difference between TESTING requirements and MONITORING requirements.
- 2) Clearer expectations on when testing is to be completed, including:
 - Reduced testing requirements and reduced testing window
 - Yearly Training Program (YTP) alignment (Appendix A)
- 3) Minimum Program requirements
- 4) RADAR shifting focus to monitoring – (Appendix E)

Testing – A measurement that determines an athlete's current performance against specific standards or markers. The outcome of *TEST'ing* is linked to selections or invitations to RCA programs or initiatives.

Monitoring – Ongoing measurements that maximize an athlete's performance by reducing injury risk and optimizing competition readiness. Monitoring that is recorded over time provides an overview of overall: physiological; health & well-being; training load; and injury.

Via daily monitoring practices, the NextGen Program Coaches can better assess how athletes are progressing and adapting over time. Effective monitoring practices positively influence and enhance an athletes' training program. The outcome of a strong **Monitoring** program should be an improvement in **Testing** results.

TESTING: The following outlines RCA’s Targeted Tests & Submission Dates.

Month	Submission details	Specifics	Calendar Year and date range			
			2021	2022	2023	2024
February	2000m and/or 6000m Erg Submission	1 st Week of the month	Jan 31 - Feb 7	Jan 30 - Feb 6	Jan 29 - Feb 5	Jan 28 - Feb 4
May	2000m Erg Submission	1 st Week of the month	May 2 - 8	May 1 - 7	April 30 - May 6	May 5 - 11
May	Small Boat trials		See Selection document for Specific Dates and locations			
November?	National Rowing Championships		TBD			
November	2000m <i>and</i> 6000m Erg	<i>Either</i> 1 st <i>or</i> 3 rd full week of the month	November 7-13 OR 21 -27	November 6-12 OR 20-26	November 5-11 OR 19-25	November 3-9 OR 17-23

Additional information

- 1) *Athletes unable to complete any of the testing requirements must request an exemption to maintain eligibility for programming. (see Appendix B)*
- 2) Tests must be completed and submitted within the date range listed in the above chart.
- 3) All tests are to be witnessed by a coach
- 4) Results are to be submitted following the outline in “Appendix C - Data Submission”
- 5) Testing is to be completed on a Concept 2 Stationary Ergometer using the Drag factors set out in “Appendix D”

Minimum TESTING requirements for program invitation and engagement

Program	Details	February	May	May	?	November
		2000m <i>and/or</i> 6000m Erg	2000m Erg	Small Boat Trails	National Rowing Championships	2000m <i>and</i> 6000m Erg
Sport Canada Carding	January Intake				Y	Y
	July Intake		Y	Y		
Provincial AAP*	Spring Intake				Y	Y
Invitation to NextGen Programs	Winter Camps				Y	Y
	RCA Selection Events		Y	Y		
	Provincial Selection events*		Y	Y		
	Performance Centre - Spring Intake (May / June)	Y	Y	Y		
	Performance Centre - Fall Intake** (Aug / Sept)		Y	Y		
	Performance Centre - January Intake				Y	Y

***Athletes invited to, and participation in, Provincial and National teams will also be considered for this intake period.*

Note: Information listed above are the “Minimum” program requirements. Athletes engaged in RCA and Partner programs are expected to complete all outlined testing. This includes but not limited to the following individuals

- Athletes receiving Sport Canada-AAP (Carding)
- Athletes receiving provincial AAP Support from provinces with NextGen Performance Centres or Programs
- NextGen Performance Centre - Centralized and Regional Athletes.

MONITORING: The following outlines RCA’s primary monitoring strategies.

- Monitoring Camps (includes a series of on-water and land assessments)
- Training Load and Rate of Perceived Effort (RPE)
- Hooper McKinnon

Additional Monitoring may be established on a yearly or an event basis. Any additions to the list above will be communicated directly to athletes and coaches impacted by the changes. Monitoring requirements and expectations:

The following outlines the Monitoring requirements and expectations once an athlete has been invited to a NextGen program or team.

		Daily Monitoring		
		Monitoring Camps	Training load and RPE	Hooper McKinnon
Carded Athletes	Sport Canada - AAP	Y	Y	Y
	Provincial - AAP	Y	Y	Y
NextGen Programs	RCA Seasonal Teams (JR/ U23 / Other NextGen Identified Programs)		Y - Once Invited	Y - Once Invited
	Provincial Seasonal Teams*		Y - Once Invited	Y - Once Invited
	Performance Centre - Centralized athletes	Y	Y	Y
	Performance Centre Decentralized athletes	Y	Y	Y

Appendix A - YTP Alignment

Month	Test	YTP Alignment
February	6000m And /Or 2000m ERG	Most athletes will be in their General Prep Phase of Training. 6000m testing will provide feedback on the impact of their Aerobic and Anaerobic Lactate training. 2000m testing is a good baseline to build on for the upcoming race season and fits into the off season erg events.
May	2000m	Athletes will be in their Pre-Comp Phase of training. The 2000m test will provide feedback on how their winter of training has gone and set the stage for the Competitive season
May	Small Boat Trials	Selection component to demonstrate an athletes technical and physical ability in a Sport Specific Situation. Most athletes will still be in their Pre-Competition Phase of training
November	2000m And 6000m Erg	Some athletes will have just finished their competitive phase others may be through their transition phase and into the general Prep. Both of these tests provide an assessment of the athletes current physiology state supporting training program development into the off season. Although both are important those at the end of their Competitive phase may find a stronger performance on their 2000m and those in their Preparatory Phase may find they have a stronger performance on their 6000m

Appendix B - Exemptions:

Athletes that are unable to complete a required Testing or Monitoring submission may request an Exemption. The following outlines the process for athletes to complete this request.

- 1) All requests are to be submitted by the individual athlete seeking the exemption or extension.
- 2) Requests are to be received as early as possible and in advance of the Testing/Monitoring submission date.
- 3) Appropriate documentation and reasoning should accompany all requests. Medical, or other.
- 4) Requests are to be submitted to the following contacts
 - a. NTC* Based athletes - Iain Brambell, High Performance Director
ibrambell@rowingcanada.org
 - b. RCA NextGen Athletes (Non NTC*) - Chuck McDiarmid, NextGen Program Lead
cmdiarmid@rowingcanada.org
 - c. Provincial athletes not seeking selection to an RCA Program or Team.
 - i. BC - Rob Richards rob.richards@rowingbc.ca
 - ii. AB - Alex Marchuk a.marchuk@albertarowing.ca
 - iii. SK - Andrew Knor - skrowhp@gmail.com
 - iv. MB - Janine Stephens - rowingcoach@sportmanitoba.ca
 - v. ON - Chris Marshall - Chris@rowontario.ca
 - vi. QUE - Gavin McKay - Gavin.McKay@me.com
 - vii. NS - Pat Cody - coach@rowns.ca

For "Daily Monitoring" athletes are not required to request exemptions for every missed submission. In this case exemptions should be requested if larger blocks of submissions will be missed.

*NTC = National Training Centre

Appendix C - Data Submission Process.

There are 2 ways to submit Testing and Monitoring information

Option 1 - Submit using your Kinduct profile: if you do not have a Kinduct profile use options 2

Option 2 - Submit using the RCA Form. ([found here](#))

Appendix D – Drag Factor

Testing should be completed at the following Drag Factors

Category	Testing DF	Max DF
Junior Women	110	190
Lightweight Women*	110	190
Open Women	110	190
Junior Men	120	190
Lightweight Men*	120	190
Open Men	130	190
PR3 Men	120	190
PR3 Women	110	190
PR1 & PR2	Preferred	190

* *Lightweight categories apply to programs in which lightweight events are offered and supported.*

The Testing Drag Factors should be use for all ergometer submissions other than the dedicated Peak Power testing

Appendix D – RADAR

Starting January of 2020 RCA is not requiring athletes to submit a full RADAR battery. For programs that do not have access to advanced physiological testing (IE Lactate) RCA still recommends coaches use this monitoring tool to establish an individuals power curve assessing training effectiveness, and set training zones.

RADAR Week: all testing should be completed over a 7day time period. To support coaches in delivering RADAR testing RCA recommends the following schedule to complete the tests. RADAR Week should occur within a rest/recovery week and the frequency and duration of activities should be programmed accordingly.

Prescribed RADAR Week Schedule:

Day	Time	Event
1 (2 Days prior to any RADAR tests)	Session 1	90 Minute Cat 6
2 (1 Day Prior to any RADAR tests)	Rest Day	Active recovery / stretching
3	Session 1	6000m all out – Olympic and PR3 Class 20 minute all out – PR2 and PR1 Class
	Session 2	15 km Cat 5-6 row / erg or 60-minute Cat 5-6 cross training
4	Session 1	Peak Power MDF test - followed in 20 minutes by 1 Minute all out test 10 km Cat 6 row or 60-minute Cat 6 cross training
	Session 2	10-12 Km Cat 6 row (technique) / Erg Prep
5	Session 1	2000m all out
6 (Post RADAR tests)	-	Return to regular training

* RADAR Tests in red text.

Ergometer Protocols:

All ergometer tests should be completed on a Concept 2 ergometer without the use of sliders. In addition, the following protocols must be used:

Peak Power

Purpose: To assess the ability to develop peak power.

Equipment:

- Concept II Ergometer (*the CII should be placed on a non-slip surface or held in place by weights*)
- Clipboard
- Pen
- Data sheet

Set-up: Use 190 Drag Factor (Max Drag Factor) for all athletes. For stroke length assessment, a piece of black electrical tape should be placed across the rail at the point where the athlete reaches full compression. This will provide the assessor a guide to see if the athlete is rowing full slide. The C2 monitor should be set to just row and adjusted so that Watts are displayed on the screen.

Warm Up: Warm up is ten minutes of easy ergometer rowing with 2-3 maximal two stroke efforts interspersed through the ten minutes. Maximal stroke efforts should be done at both drag factors.

The test: Each athlete will perform two 10-stroke trials. The highest power, in Watts, seen for any of the ten strokes is recorded on the data sheet as the Peak Power. At least 90 seconds but not more than 180 seconds of rest is provided between each of the trials. This test is best done in groups of 2-3 so that one athlete can be testing while the others are resting for their next trial.

Performance: The athlete sits in a full compressed ready position at the catch. The assessors position themselves so that they can see the ergometer display and record the required data. During the performance the athlete will pull ten strokes as hard as possible, trying to row as close to full slide as they are capable. Rest break: 90-180 seconds before repeating the same procedure again.

1 minute / 2000m / 6000m / 1000m / 20 minute

Equipment:

- Concept II Ergometer (*the CII should be placed on a non-slip surface or held in place by weights*)
- Clipboard
- Pen
- Data sheet

Set-up: The test will be done using Testing Drag Factor (*see table below*).

Warm Up: Athletes should perform a standard pre-race warm up that supports performance at the prescribed testing distance.

The test: The Athlete will start each test in the catch position. The ergometer monitor should be set in a countdown mode specific to the test being completed. At the completion of each test the following results should be recorded

- Average Watts
- Average split
- Average Stroke rate
- Final time or distance results

Further information can be downloaded for those seeking detailed information on athlete race strategy and tactics. This can be done by setting the recall mode on the monitor to the desired time or distance.