

# Timber Cruiser's Log

9<sup>th</sup> Edition



**Forest  
Professionals**  
BRITISH COLUMBIA

Approved by: Chi Cejalvo. June 2025

| Revision Tracker |  |
|------------------|--|
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## Completing the Log

The following is a summary of the steps to complete the Timber Cruiser's Log.

1. Review the accreditation forms for each level. Ensure you meet all the criteria included in the description of each level before asking for endorsement.
2. Have a practising FPBC registrant who has first-hand knowledge of your skills and abilities submit their endorsement by filling out the accreditation form with the required information.
  - a. Registered Forest Technologists (RFTs), Registered Professional Foresters (RPFs), and FPBC registrants with Accredited Timber Evaluator (ATE) certification can endorse competencies for accreditation form levels 1, 2, 3, and 4.
  - b. FPBC registrants with Accredited Timber Cruiser (ATC) certification can endorse competencies for accreditation form levels 1, 2, and 3.
3. Fill out the Timber Cruising Log for each level. Each log has specific requirements. You must include the work code, total number of days and dates to demonstrate you meet the minimum requirements for each log. You cannot use the same workdays for multiple levels.
  - a. To apply for certification as an ATC, accreditation form levels 1, 2, and 3 must be endorsed, and the minimum requirements for the Timber Cruising Log must be met.
  - b. To apply for certification as an ATE, accreditation form levels 1, 2, 3, and 4 must be endorsed, and the minimum requirements for the Timber Cruising Log must be met.
4. Include the completed Timber Cruiser's Log in your application for certification.

## Work Codes for Cruising Experience

| Work Code | Description of Work                         |
|-----------|---|
| 1         | Field plot work                             |
| 2         | Field quality control work                  |
| 3         | Office compilation and reporting            |
| 4         | Office cruise plans and project preparation |
| 5         | Receiving field cruising training           |
| 6         | Receiving office cruising training          |
| 7         | Providing field cruising training           |
| 8         | Providing office cruising training          |

## Level 1 – Compasser Accreditation Form

| Criteria  |                |      | Description   |
|---|----------------|------|---|
| <b>1.1 Equipment Knowledge</b><br>Competency endorsed by: |                |      | A compasser must be able to demonstrate the ability to operate and maintain: <ul style="list-style-type: none"> <li>• Hand compass</li> <li>• Diameter tape, including replacing a refill</li> <li>• Increment borer, including oiling, and sharpening an axe</li> <li>• Horizontal distance measuring device</li> <li>• Vertical distance measuring device</li> </ul>  |
|   |                |      |   |
| Initial   | Registration # | Date |   |
| <b>1.2 Field Procedures</b><br>Competency endorsed by:    |                |      | A compasser can demonstrate how to: <ul style="list-style-type: none"> <li>• Operate a hand compass</li> <li>• Measure horizontal distances</li> <li>• Establish plot centres and reference points</li> <li>• Determine tree diameters</li> <li>• Determine tree age at breast height</li> <li>• Assist in tree height measurements</li> <li>• Communicate clearly</li> <li>• Conduct tasks in a safe manner</li> </ul>                   |
|   |                |      |   |
| Initial   | Registration # | Date |   |
| <b>1.3 Field Knowledge</b><br>Competency endorsed by:     |                |      | A compasser can demonstrate how to: <ul style="list-style-type: none"> <li>• Differentiate between magnetic, grid, and true north</li> <li>• Recognize common tree species</li> <li>• Recognize and identify tree pathology</li> <li>• Recognize and identify common tree pests and other damage</li> <li>• Map reading – recognize basic map-related features</li> <li>• Be aware of regulatory and occupational requirements</li> </ul> |
|   |                |      |   |
| Initial   | Registration # | Date |   |

|                                |
|--------------------------------|
| <b>Endorsement for Level 1</b> |
|                                |
| Endorsed by (full name)        |
|                                |
| Signature of endorser          |
|                                |
| Endorser's registration #      |
|                                |
| Date of endorsement            |

## Level 1 – Compasser Timber Cruiser Log

To meet the experience requirements for Level 1, you must complete **45 days** of work experience using **work codes 1, 2 and 5**.

| Work Code | Start Date (dd/mm/yyyy) | End Date (dd/mm/yyyy) | Number of Days |
|-----------|-------------------------|-----------------------|----------------|
|           |                         |                       |                |
|           |                         |                       |                |
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|           |                         |                       |                |
|           |                         |                       | <b>Total:</b>  |

## Level 2 – Cruiser in Training Accreditation Form

| Criteria  |                |      | Description  |
|---|----------------|------|--|
| <b>2.1 Equipment Knowledge</b><br>Competency endorsed by: |                |      | A cruiser in training must be able to demonstrate the ability to operate and maintain: <ul style="list-style-type: none"> <li>• Clinometer/hypsometer/height measuring device</li> <li>• Steel/fibreglass measuring tape and nylon chain, prism and/or relaskop</li> <li>• Two-way radio and or satellite phone</li> <li>• GPS unit</li> </ul>   |
|   |                |      |  |
| Initial   | Registration # | Date |  |
| <b>2.2 Field Procedures</b><br>Competency endorsed by:    |                |      | A cruiser in training must be able to demonstrate the ability to: <ul style="list-style-type: none"> <li>• Adjust declination settings/directional bearings on a compass</li> <li>• Navigate without supervision</li> <li>• Measure horizontal distance/calculate slope correction</li> <li>• Use a prism/relaskop and plot radius factor or diopter calculations to establish variable radius/fixed area plots</li> <li>• Plot establishment (fixed area and variable radius)</li> <li>• Estimate volume per hectare</li> <li>• Determine site index</li> <li>• Determine breast height, age, and calculate total age</li> <li>• Tree height (length) measurement and estimation</li> <li>• Record accurate field notes (timber type, topography, tree quality)</li> <li>• Record/communicate the ID, collection and collation of field data</li> <li>• Conduct tasks in a safe manner</li> </ul> |
|   |                |      |  |
| Initial   | Registration # | Date |  |

|                                |
|--------------------------------|
| <b>Endorsement for Level 2</b> |
|                                |
| Endorsed by (full name)        |
|                                |
| Signature of endorser          |
|                                |
| Endorser's registration #      |
|                                |
| Date of endorsement            |

## Level 2 – Cruiser in Training Timber Cruiser Log

To meet the experience requirements for Level 2, you must complete **90 days** of work experience using **work codes 1-8**. A maximum of **15 days** of office work can count towards this level, which includes **work codes 3, 4, 6, and 8**.

| Work Code | Start Date (dd/mm/yyyy) | End Date (dd/mm/yyyy) | Number of Days |
|-----------|-------------------------|-----------------------|----------------|
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       | <b>Total:</b>  |

## Level 3 – ATC Accreditation Form

| Criteria   |                |      | Description  |
|--|----------------|------|--|
| <b>3.1 Field Procedures</b><br>Competency endorsed by:             |                |      | An ATC must be able to demonstrate how to: <ul style="list-style-type: none"> <li>• Determine basal area and species composition</li> <li>• Estimate volume per hectare from variable/fixed area plots</li> <li>• Conduct field training and check cruising from Levels 1 and 2</li> </ul>   |
|  |                |      |  |
| Initial  | Registration # | Date |  |
| <b>3.2 Field Knowledge</b><br>Competency endorsed by:              |                |      | An ATC must be able to demonstrate how to: <ul style="list-style-type: none"> <li>• All tasks identified in sections 1.3 and 2.3</li> <li>• Alternative sampling techniques (probe line traverses, stump cruise and transect lines, etc.)</li> <li>• Awareness of applicable quality assurance standards</li> </ul>  |
|  |                |      |  |
| Initial  | Registration # | Date |  |
| <b>3.3 Office Procedures (optional)</b><br>Competency endorsed by: |                |      | As an option, an ATC can carry out the following types of office procedures: <ul style="list-style-type: none"> <li>• Determine the coefficient of variation and sampling intensity</li> <li>• Produce an adjusted cruise map (with accurate placement of plots)</li> <li>• Confirm timber types and group into sampling strata</li> <li>• Edit field data and prepare it for input to a compilation program</li> <li>• Conduct office training and auditing for levels 1 and 2</li> <li>• Produce a post-cruise report that accurately presents the criteria requested by the client</li> <li>• Manage a daily work schedule</li> </ul> |
|  |                |      |  |
| Initial  | Registration # | Date |  |

|                                  |
|----------------------------------|
| <b>Endorsement for Level 3</b>   |
|                                  |
| Endorsed by ( <i>full name</i> ) |
|                                  |
| Signature of endorser            |
|                                  |
| Endorser's registration #        |
|                                  |
| Date of endorsement              |

## Level 3 – ATC Timber Cruiser Log

To meet the experience requirements for Level 3, you must complete **225 days** of work experience using **work Codes 1-8**. A maximum of **45 days** of office work can count towards this level, which includes **work codes 3, 4, 6 and 8**.

| Work Code | Start Date (dd/mm/yyyy) | End Date (dd/mm/yyyy) | Number of Days |
|-----------|-------------------------|-----------------------|----------------|
|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       |                |
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|           |                         |                       |                |
|           |                         |                       |                |
|           |                         |                       | <b>Total:</b>  |

## Level 4 – ATE Accreditation Form

| Criteria  |                |      | Description   |
|---|----------------|------|---|
| <b>4.1 Field Procedures</b><br>Competency endorsed by:  |                |      | An ATE must have a comprehensive understanding of and can competently demonstrate how to conduct field training and quality assurance for all cruising levels   |
|   |                |      |   |
| Initial   | Registration # | Date |   |
| <b>4.2 Field Knowledge</b><br>Competency endorsed by:   |                |      | An ATE must have a comprehensive understanding of and can competently demonstrate how to: <ul style="list-style-type: none"> <li>• Use of alternate sampling techniques, which may include,               <ul style="list-style-type: none"> <li>○ Probe line traverses</li> <li>○ Stump cruises</li> <li>○ Transect lines</li> <li>○ Big BAF</li> <li>○ 3P</li> </ul> </li> </ul>  |
|   |                |      |   |
| Initial   | Registration # | Date |   |
| <b>4.3 Office Procedures</b><br>Competency endorsed by: |                |      | An ATE must have a comprehensive understanding of and can competently demonstrate how to: <ul style="list-style-type: none"> <li>• Determine the coefficient of variation and sampling intensity</li> <li>• Produce an adjusted cruise map (with accurate placement of plots)</li> <li>• Confirm timber types and group into sampling strata</li> <li>• Edit field data and prepare it for input to a compilation program</li> <li>• Conduct office training and auditing for levels 1 and 2</li> <li>• Produce a post-cruise report that accurately presents the criteria requested by the client</li> <li>• Manage a daily work schedule</li> <li>• Prepare check cruise reports</li> </ul> |
|   |                |      |   |
| Initial   | Registration # | Date |   |

|   |                |      |  |
|---|----------------|------|--|
|   |                |      | <ul style="list-style-type: none"> <li>• Coordinate and manage timber cruising projects</li> <li>• Prepare cruise compilation</li> <li>• Conduct quality control on cruise compilations</li> </ul>   |
| <b>4.4 General knowledge</b><br>Competency endorsed by: |                |      | An ATE must have a comprehensive understanding of and can competently demonstrate the following: <ul style="list-style-type: none"> <li>• Sampling theory for variable radius plot cruising</li> <li>• Recognize base map origins, including NTS, BCGS and other sources</li> <li>• Understand and know the limitations of forest inventory map label information</li> <li>• Timeline/efficiency scales</li> <li>• Understand the coefficient of variation, standard deviation, VBAR calculations and sampling error objectives</li> <li>• Ensure appropriate decay waste and breakage factors are used and understood</li> <li>• Understand area calculation techniques</li> <li>• Interpret the log grade algorithm flowcharts</li> <li>• Understand and apply the appropriate use of photo-to-map transfer devices (stereo plotting, mono-restitution or equivalent)</li> <li>• Computer compilation output data, including LRF, cull and piece size</li> <li>• The principle of the appraisal system as it relates to cruise input data</li> <li>• Check cruise criteria and procedures</li> </ul> |
|   |                |      |  |
| Initial   | Registration # | Date |  |

|                                |
|--------------------------------|
| <b>Endorsement for Level 4</b> |
|                                |
| Endorsed by (full name)        |
|                                |
| Signature of endorser          |
|                                |
| Endorser's registration #      |
|                                |
| Date of endorsement            |

## Level 4 – ATE Timber Cruiser Log

To meet the experience requirements for Level 4, you must complete **540 days** of work experience using **work codes 1-8**.

| Work Code | Start Date (dd/mm/yyyy) | End Date (dd/mm/yyyy) | Number of Days |
|-----------|-------------------------|-----------------------|----------------|
|           |                         |                       |                |
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|           |                         |                       | <b>Total:</b>  |