Working Alone

To Work Alone or In Isolation

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Definition of a Lone Worker

"to work alone or in isolation" means to work in circumstances where assistance would not be readily available to the worker in case of an emergency, or in case the worker is injured or in ill health.

Most often forestry workers are working alone in remote, isolated areas. These areas are most likely to contain a high number of hazards, making for a greater potential of risk and harm to a worker. The Occupational Health and Safety (OH&S) Regulations for working alone have to be followed.

Guideline Purpose

- Provide employers, workers working alone, and designated contact person more information and requirements stated in Newfoundland and Labrador Occupational Health and Safety, Regulations Section 15.
- Recommended time intervals for check-in on the well-being of the worker working alone.
- Provide more information on acceptable methods.
- Provide information on new technology.
- Emergency Preparedness.
- Offer sample checklists to use.

Employer Responsibilities

- Conduct a risk assessment where a worker is assigned to work alone or in isolation.
- Identify all hazards.
- Eliminate the hazards.
- Minimize the risk associated with the hazard if it cannot be eliminated.
- Develop and Implement written procedures to check up on the worker assigned to work alone.
- Establish ways to account for people (visually or verbally) while they are working alone.
- Written procedure to be consulted with the worker, designated contact person, OH&S committee, the worker health and safety representative or designate.
- Review the written procedure annually, or more frequently if there is a change in work arrangements that may adversely affect the worker's well-being or safety, or a report that procedures are not working effectively.
- Investigate incidents at the workplace, and those from similar workplaces.
- Report all situations, incidents or "near misses" where working alone increased the severity of the situation. Analyze this information and make changes to company policy where necessary.
- Provide appropriate training and education.
- Train the contact person of their responsibilities including emergency response.
- Appropriate written procedures must be developed where risk assessment shows a need for evacuation or rescue.
- Employers are required to keep up-to-date written procedures for providing first aid at the worksite.

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- Provide an effective means for communication between the workers who are working alone, designated contact person, and first aid attendant.
- Establish a check-in procedure.
- Make sure regular contact is kept with all workers.
- Ensure that workers use equipment as intended and according to the manufacturer's specifications.

Workers Working Alone/Designated Contact Person Responsibilities

- Follow working alone policy and procedures.
- Conduct a risk assessment, be aware of hazards and risks in the area.
- Properly use personal protective equipment (PPE).
- Receive proper training to be able to work alone.
- Understand and become familiar to procedures to working alone.
- Must carry a functioning communication device, such as a satellite transceiver, two-way radio, satellite phone, cell phone or a Personal Locator Beacon with GPS Interface.
- All equipment used must be maintained and in good working condition.
- Have appropriate first aid and emergency supplies provided.
- The worker who will be working alone must have designated contact person to check in with on a pre-planned schedule. The check in is recommended within every 2 hours and at end of shift.
- The designated contact person must have a copy of the working alone procedure and any applicable ERP, contact information, locations and/or maps necessary for rescue of the lone worker.
- The designated contact person must record the time of each contact with the lone worker.
- If the lone worker fails to check in, then the contact person must initiate search procedures after 30 minutes of no response.
- Report all situations, incidents or "near misses"

Time Intervals

It is very important to check on the well-being of the worker working alone or in isolation on scheduled timed intervals. Timed check-ins should be developed after considering the hazard and risks in the area. The greater the risk or potential for harm, check-ins will be required on a more frequent basis. The check in time should be developed with consultation of the assigned worker working alone, the employer, and with joint committee or Health and safety Representative.

- Recommended minimum check-in would be within 2hr intervals, if employee fails to check back within 30 mins, the employee will be assumed in need of assistance and the designated contact person will activate the "Emergency Response Procedure"

Method for Checking Well-being

There are several different methods to check on worker's well-being:

- Visual confirmation- visual confirmation is usually the most preferred method of checking on worker's well-being

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- A two-way voice communication- radio, cellphone, satellite phones can be used to check-in, be sure to always have signal to remain two-way communication
- New technology and devices- Wireless satellite hand-held alerting and tracking devices can be benefit, some have capabilities to send alerts, simple messaging, and provide GPS coordinates of the worker working alone. Should be tested for reliability in the area being used

New Safety Equipment and Devices

Technology is changing and advancing every day. There are several systems which a worker can use to help check-in, send message, or locate GPS location for quick emergency use. Many companies supply different features to these devices. Some Key features include:

Working alone monitoring device/GPS/Two-way messaging

- A combination of automatic and manually triggered safety features that initiate the emergency response process.
- Man-down Alarm - Automatically detects falls and incorporates no motion
- Confirmation/Cancellation of emergencies
- Incident logs and reports
- Answers two-way voice calls from monitoring team
- Scheduled check-in at defined times or intervals
- Automatic reminders when due
- Alerts when overdue
- Send and receive messages
- Follow me/find me tracking share GPS coordinates, course, speed, and elevation

Drones

- Can be sent in to get an overview of the landscape, terrain
- Density of the forest
- Wildlife in the area
- Any danger that could harm workers

Risk Assessment

In forestry, the nature of the work comes in a high risk of hazards and the potential of harm likely to occur. Risk assessments can help employers and workers be aware of their surroundings and use controls to minimize loss potential. The assessment is a step by step process that identifies the type of hazards, the likelihood that harm or risk of occurring, and set priorities and controls in place to mitigate loss.

Some keys to help with your risk assessment:

- Previous incidents where workers were exposed to hazards while working alone or in isolation in the workplace.

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- Gather information from other similar workplaces, anything that workers have been exposed to, the hazards and severity of the risk. Sources include the internet, other industries, the police, WorkSafeBC.
- Engineering and administrative controls for hazards.
- Input and advice from workers, joint committee, OH&S representative - use surveys, questionnaires, formal and informal discussions.
- Analyze the information.
- Follow up and update new information.

Things to consider in your risk assessment:

- The location of the workplace, and the emergency response time necessary to get there in the event of an emergency.
- Whether or not the worker may be attacked by an animal or encounter a poisonous material.
- The climate of the work environment, workers exposed to extreme weather conditions or temperatures.
- Whether or not the work is physically demanding so that the worker may be fatigued.
- Age, experience, and training of the workers who may be at risk (new workers).
- Type of equipment, tools, and supplies available for use, including emergency communication equipment and emergency supplies such as food and drinking water and appropriate first aid equipment.
- Whether or not the worker will need to carry some or all of the emergency supplies and first aid equipment with them during work activities.
- Workers encounter trouble and face long walks to communications or vehicles.

(Risk assessment considerations from OHS Guidelines Part 04, © WorkSafeBC, used with permission)

Emergency response and Preparedness

Calling 9-1-1 is not a rescue plan for forestry, the call may not work, or the emergency service may not be able to respond, every minute counts.

12 tips for an effective emergency response plan (ERP)
© WorkSafeBC, used with permission

1. **Be prepared for anything.** Your work location and environment change regularly, even on a daily basis. You could be on a different site, drainage, or road system; the weather might be worse than yesterday; other contractors in the area might have come or gone. It's important for you and your crew to ask yourselves every morning; does our ERP have us covered today?

2. **911 is not a rescue plan.** You can't rely on 911 in the bush. The call won't work from most satellite phones and, if you do get through, rescue personnel may not be able to respond effectively to a forestry incident. Some jurisdictions don't even have the capacity to respond in such remote locations. If you can only make one call for help, clarify who that should be at your current workplace. Landline numbers for NL Ambulances are highly recommended.

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3. **Go above and beyond.** When completing your first aid assessment, it's important to factor in the level of risk due to the remote nature of the work and how difficult it would be to get to medical aid, rather than only focusing on the risk of the work activity itself.

4. **Knowledge is power.** Make sure all workers on site know how to respond to an incident- don't rely only on a supervisor to coordinate help. The supervisor might not be available or could be the one actually needing assistance. It's essential that all workers are able to identify their physical work location at all times (e.g., latitude/longitude). They should also know where to find the communications equipment, how to use it, who to contact, and what to say.

5. **Don't be left hanging.** No one piece of communications equipment will work 100 percent all the time or in all areas. It's important to have a backup plan and/or other options available for communications (e.g., Satellite phones, radios, cell phones). If your plans involve relaying information through different parties, be sure to practice getting a message through.

6. **Don't make assumptions.** Perform cell and satellite phone tests at every site to know what kind of coverage you have. Remember to check and charge the batteries often, and always carry spare batteries.

7. **Know your plan and practice it.** Don't wait for a real emergency to find out if your plans work. Conducting regular, realistic, and relevant emergency response drills is one of the best ways for you to verify how effective your plan is. It also serves as an excellent training opportunity for your crew. Practice these drills at as many worksites and with as many workers as possible. After each drill, discuss what you and your crew learned and where things could be improved, and then implement changes as needed. The point isn't to do it perfectly, but to learn and improve your plan every time.

8. **Opportunities for learning.** Consider adding an ERP review component to every accident investigation your firm does. This way, your Emergency response plan is evaluated frequently and in the context of actual incidents. The review could be simple as asking: was our ERP adequate for the situation? What if things had been worse? Were we able to communicate with outside help in a timely matter.

9. **Know your neighbours.** People in the bush need to look out for each another. Take the initiative to find out which firms are working close to yours and what equipment they have- they might be able to respond and help you faster than anyone else.

10. **Many hands make light work.** Performing first aid treatment on a hillside is not the same as on the training room floor. It will be easier with a helper. As part of your plan, consider pre-determining a helper to go with your first aider. Given the challenging environment and remote locations of forestry work, having someone help stabilize the injured person on a slope, talk on the radio, or even keep things from blowing away, is an invaluable asset. Also, having more people on hand will be necessary when it comes to moving an injured worker. It's extremely difficult to move an injured person down a cut block and it'll be a struggle to move a stretcher with fewer than six to seven people.

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11. **Plan beyond first aid.** Make sure your ERP goes beyond first aid and is adequate for other situations that would require emergency response, including fires, avalanches, landslides, sour gas, multiple injuries, etc.

12. **Prepare for evacuation.** Depending on your location and terrain, planning should account for evacuation by air or ground transport.

    By air: Prepare for emergency heli-extractions by communicating frequently with helicopter companies, having pre-arranged radio channels, and mapping out helicopter landing areas in advance. Familiarize yourself with the different machines that may be sent to you so you'll know if your equipment will fit. Ask yourself: do you have the right emergency transportation equipment (ETE) for that configuration?

    By ground: If ambulance is responding to your call, make sure you can verbally give driving directions to where you are and be prepared to rendezvous if necessary.

Checklists

Feel free to use the following checklists to help you put your working alone plan in place.

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Working Alone Daily Checklist

*Completed check list to be handed in at end of shift

Date:_____.

Recorder Name:_____.

Print Name:	6am	8am	10am	12pm	2pm	4pm	6pm	8pm	10pm	12am	2am	4am

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Working Alone Checklist

Name of Employee:	Date:
Contact Person:	Location:
Emergency Contact:	Emergency contact #:
Contact Frequency:	Frequency 1:
	Frequency 2:

Time	initials
6 am	
8 am	
10 am	
12 pm	
2 pm	
4 pm	
6 pm	
8 pm	
10 pm	
12 am	
2 am	
4 am	
End of shift	

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Technology

The advancement of technology has really improved safety in the forest sector. The following technological devices can help you make your workplace safer.

Loner M6

The Loner M6 is a work alone device developed to monitor the safety of lone workers in the field, inside facilities, in between sites and while driving. Some features of this device are:

- Features a combination of automatic and manually triggered safety features that initiate the emergency response process.
- A new blue LiveResponse indicator provides comfort and confidence to a lone worker who has been injured, faces a health incident or physical assault.
- Loner M6 automatically answers a two-way voice call from the monitoring team, without having to press a button.
- New 3G wireless communications provide leading coverage in more than 100 countries—many of which provide a combined coverage footprint from multiple carriers.
- Loner M6 can automatically detect falls with True Fall Detection®, incorporates no-motion detection (man-down alarm).
- New assisted-GPS technology provides a precise location when leaving buildings and outdoors.

Turn your smartphone into a work alone safety device

With the advances in modern technology, smartphones have proven an assist to all aspects of industry. Lone workers can also use their own iOS or Android smartphone with the GeoPro mobile app and using their device's cellular network. All of the GeoPro features are supported and you'll also have access to some mobile-exclusive features such as a "man down" alerts.

GeoPro

Working alone can put employees at greater risk if their health or safety is threatened. In most regions, employers have a legal and moral duty to assess the hazards they may face and take every precaution to ensure their safety. Employees in many sectors are required to work alone or at remote or isolated work sites that may increase the risk to their well-being:

Forestry, mining, energy, environmental employees and others may be required to work at isolated work sites that are beyond the reach of landline or cellular communications coverage.

And because GeoPro supports a two-way system of communication between safety monitors and employees, it addresses even the most rigorous Occupational Health and Safety, and Work Alone regulations. It's a good idea to consult the applicable legislation to ensure you understand your legal duty of care. In the absence of a legal duty of care, we have a moral duty to take every reasonable precaution to protect lone workers.

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GeoPro provides:

- Confirmation/cancellation of emergencies

- Real-time incident notification

- Incident logs and reports

Manage check-in schedules

GeoPro's robust check-in scheduler lets you easily define and assign check-in schedules, and automates missed or overdue check-in notifications to those you designate.

GeoPro supports:

- Scheduled check-in at defined times or intervals (e.g. every 2 hours)

- Ad hoc check-in

- Automatic reminders when due

- Real-time alerts when overdue

Essential gear for the backcountry

2-Way Messaging | SOS | Tracking | GPS | Weather Forecasts

DeLorme InReach SE is an essential two-way messaging device that works in the backcountry, or anywhere cell phones don't. Whether by land, sea or air, you'll have a reliable connection to friends – or help – when and where you need it. Use InReach SE to send and receive messages, trigger an SOS, get weather forecasts or share your journey with others.

Features:

- As the next generation satellite communicator from DeLorme, InReach SE builds on the proven, award-winning technology of the company's original satellite communicator

- Combines the latest satellite communication technology and product innovation to make it the most feature-rich, and easy to use satellite communicator that both sends and receives messages available on the market at an affordable price point

- With a color screen and virtual keyboard, InReach SE provides full, free-form texting capabilities to any cell phone number or email address, social media posting, the ability to change service modes and configure user settings – all without the need for a paired, companion device

- Offers a sleek, pocket-sized design, intuitive LED indicator for satellite availability, audible message notifications, and a long-lasting internal rechargeable lithium battery for ultimate convenience and portability

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- Provides 100% pole-to-pole coverage via the Iridium satellite communications network, with no gaps, fringe or weak signal areas.

- Contract-free satellite subscription plans start at $19.95 per month and include flexible options to change, suspend or cancel service

- Optional paired mode provides access to unlimited, downloadable topographic maps and NOAA charts

- Accessories for InReach include: vehicle and bike mounts

When Used on Its Own

- Emergency/SOS – Trigger an SOS from anywhere in the world with automatic GPS location tracking. Interact with 24-hour emergency monitoring center via two-way text messaging to describe the nature of your distress in detail and stay in touch throughout the rescue process

- Send and receive text messaging -- Send and receive 160-character, free-form text messages to and from any cell phone number, email address, and other InReach users. View and respond to incoming messages directly on the screen

- Convenient, quick messaging -- Send simple, predefined text messages to email and cell phone contacts for anticipated situations

- Follow-me/find-me tracking – Turn on and off tracking to share your GPS coordinates, course, speed and elevation in real-time with friends and family. Tracking intervals can be configured between 10 minutes and four hours

- Delivery confirmation – Audible alerts, built-in LED light, and on-screen cues confirm communication with the satellite and indicate two-way message delivery

- Social media posting – Send out a message or create a post via Facebook or Twitter

When Paired with a Smartphone or Tablet

Transform your mobile device into a global satellite communication and navigation tool when you pair your InReach via Bluetooth with our Earthmate app:

- Real-time GPS location, tracking and text messages are overlaid on the digital maps for easy navigation and position location from anywhere in the world

- Unlimited downloadable topographic maps and NOAA charts on your paired mobile device when downloaded via an Internet connection. Unlike streaming maps on most cellphone apps,

downloaded DeLorme maps remain cached in the Earthmate app even when you're outside cellular coverage

- Automatically syncs with your mobile device's address book for easy message sending

- View all your previous trips and messages

Exclusive Online Features

- Give family and friends peace of mind with the ability to see your GPS coordinates, breadcrumb trail and initiate a message exchange with you from DeLorme's exclusive MapShare portal

- Manage your InReach device with our Explore portal, including:

  o Pre-load messages to your InReach

  o Set-up access to your social media accounts

  o View all your previous trips and messages

  o Manage your account and settings, including emergency contacts

SPOT sends your GPS location and data to orbiting commercial satellites.

GPS satellites provide signals

- SPOT messenger's onboard GPS chip determines your GPS location and sends your location and preselected message to communication satellites
- Communication satellites relay your message to specific satellite antennas around the world
- Satellite antennas and a global network route your location and message to the appropriate network
- Your location and messages are delivered according to your instructions via email, text message, or emergency notification to the GEOS Rescue Coordination Center

SPOT offers peace of mind by allowing you to track your assets, notify friends and family of your GPS position and status, mark waypoints, track your progress on Google Maps™ or notify rescue officials in an emergency.

The SPOT product family offers peace of mind beyond the boundaries of cellular. Whether you want to check in, alert emergency responders of your GPS location, or monitor your prized possessions, SPOT uses 100% satellite technology to keep you connected to the people and things that matters most, all while using the world's most modern satellite network.

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SPOT Trace tracks your most valuable assets virtually anywhere in the world, using your phone or computer. Affordable and easy to use, it's a no-brainer for your cars, boats, motorcycles, toys and other valuables.

SPOT Gen3 provides location-based messaging and emergency notification technology that allows you to communicate from remote locations around the globe. It offers custom tracking interval options, motion-activated tracking, long-life battery and more.

The SPOT product family uses both the GPS satellite network to determine a customer's location and the Globalstar network of satellites to transmit messages and GPS coordinates to others. SPOT offers several ways to access off-the-grid communication:

- Theft-Alerting - Instantly receive a text or email when your most valuable assets move, or follow them on Google Maps™ anytime on your phone or computer. (Available with SPOT Trace.)

- Rescue - In severe emergency situations, users can send emergency SOS notification to GEOS International Emergency Response Coordination Center (IERCC) using the SOS button or dialing 9-1-1. For less serious situations, reach out to family and friends for assistance using SPOT Help/Assist. (Available for SPOT Gen3 and GPS Messenger.)

- Check In - With a touch of a button, users can let friends and family know everything is going as planned and there is no need for alarm. (Available for SPOT Gen3 and GPS Messenger.)

- Track Progress - Allows the user's GPS location to be transmitted in real-time via Google Maps™. (Available for SPOT Gen3 and GPS Messenger.)

- Messaging - Send custom email/SMS messages to personal networks and post to Facebook and Twitter. (Available for SPOT Gen3 and GPS Messenger.)

Drones

The technology of Drones has come along way and has been introduced as new equipment to possibly be used in forestry. Although still in the practice stage, drones could prove to be an assist to the forestry sector for research purposes, as well as safety purposes.

For safety, the drones could be sent into the forest to get an overview of the landscape, wildlife in the area, as well as any danger that could harm workers. Along with this, drones could view the density of the forest and the lay of the land in order for forestry workers to access the location.

In the near future Drones may play an important part in the forestry industry, to protect workers and survey potential cutting and logging areas.

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Reference:

https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-guidelines/guidelines-part-04?ReportID=34868

https://www.bcforestsafe.org/files/swp_xWorkingAloneOrInIsolationSafeWorkProcedureAndChecklist.pdf

http://www.servicenl.gov.nl.ca/ohs/safety_info/si_working_alone.html#2

https://www.worksafebc.com/en/health-safety/industries/forestry