



What is RADAR?

A hazard assessment process that can be used to help safely address upset conditions and prevent incidents from occurring



Note: The RADAR process is not a new safety program. It is a useful resource that will assist workers in managing one of the primary causes of injury - upset conditions.



What is an Upset Condition?

- ❖ Upset conditions are interruptions in the regular running of the work process or other planned activity
- ❖ Any distraction or break in the normal work routine is considered an **Upset Condition**

Upset Condition = Unplanned Event

- ❖ Examples of Upset Conditions are:
 - Unscheduled maintenance
 - A previously unidentified hazard is encountered
 - Mechanical breakdown
 - Anything that distracts your thinking from the task at hand



Why do we need to Recognize Upset Conditions?

- ❖ Upset conditions greatly increase the risk of harm or injury while doing forestry work
- ❖ Incident reviews suggest that workers are up to 35 times more likely to be injured while working during an upset condition than during normal operating conditions



RADAR - The Process

Recognize the risk

Assess the situation – stop to think

Develop a safe solution

Act safely to fix the problem

Report and record the *upset condition*





When to use RADAR?

When you notice you will be facing an unplanned event such as:

- ✓ **The use of unplanned force**
- ✓ **The use of a tool not designed for the task**
- ✓ **Anything unexpectedly jammed, stuck or hung up**
- ✓ **Before performing maintenance**
- ✓ **Anytime lockout is required**
- ✓ **“Jury rigging” or “macgyvering” to make stuff work**
- ✓ **When you feel pressured to rush**



Recognize the Risk

If you find yourself saying any of the following:

- This will be a quicker way to do it...
 - It looks like it will hold (I'm sure it's strong enough)....
 - This tool, equipment is not performing the way it should...
 - I am getting tired of dealing with this over and over again!
 - I know I could use some help but don't want to ask for it...
 - This will only take a second. I think I can get it done without getting caught...
 - You are feeling any level of frustration or anxiety..
- ...then you need to say to yourself – **"RADAR!"** –
Stop and listen to the "little voice" in your head.



Assess the Situation – Stop to Think

Visually imagine the hazards you are facing. Ten steps or questions you must ask yourself when using RADAR during an upset condition:

- | | |
|------------------|--|
| 1. Surroundings: | What's in the ten foot circle of danger? |
| 2. Tools: | Do I have the right tool for the job? |
| 3. Other people: | Is anyone in the line of fire? |
| 4. Breaks free: | Where does it go if it lets go? |
| 5. Weight: | Do I need to seek help? |
| 6. Position: | Could I strain myself? |
| 7. PPE: | Do I have the correct PPE for the task? |
| 8. Lockout: | Is there Zero Energy – guaranteed? |
| 9. Trained: | Am I trained to do the task? |
| 10. Help: | Do I need extra eyes or hands? |



Assessing the situation

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1. *Surroundings?*

Is there a potential to be hit by something?

Where are the line-of-fire issues; am I in the bight?

Sides →

Above



What are the hazards. To me .
To others ?

What are you seeing and hearing above, behind, below and side to side ?



← **Sides**

Can the tool I am using strike me?

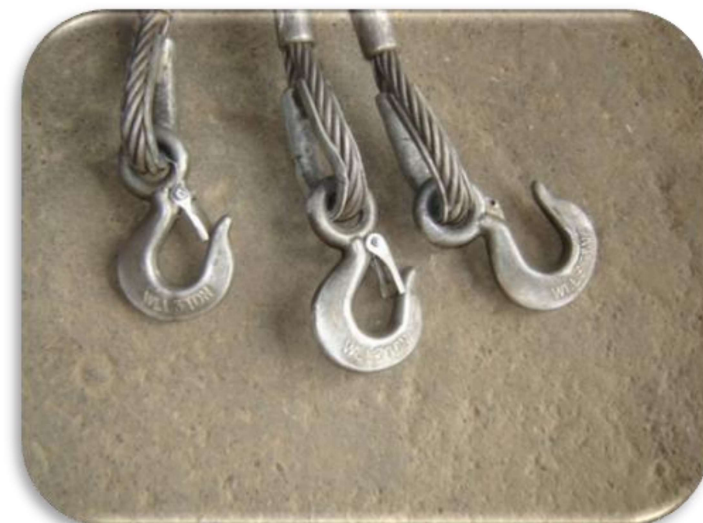
Sides



Assessing the situation

2. *Tools?*

- Do I have the right tool for the job?
- Do I know how to use it safely?
- Is the tool in good shape, including guards & cords if applicable?
- Is the tool sharp if necessary?
- What are the hazards associated with using the tool?





Assessing the situation

3. *Other people?*

- Is anyone in the line-of-fire?
- Are people alert to what I am doing?
- Is there good communication - have we talked it over together?
- Is the area guarded/barricaded if necessary?





Assessing the situation

4. *Breaks free?*

- Do I know where my fingers, hands, arms and feet are?
- Where does the force go – if it lets go?
- What happens when it comes loose?
- Will I fall if I lose my balance, traction or grip?





Assessing the situation

5. **Weight?**

- Am I lifting properly?
- What's my body position?
- What do I gain by straining to lift something myself?
- Is there a tool or device I can use to assist with the lifting?
- Can the object fall on me or my foot?
- Do I need to **seek help**?





Assessing the situation

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6. *Position?*

- Is my position, posture, stance correct?
- Is it possible I could strain myself with this task?
- Am I in a congested area?
- What am I doing that may be putting me at risk?





Assessing the situation

7. **PPE?**

- Do I have the **right** PPE for the job?
- Does the PPE **fit** me?
- Is the PPE in good **condition**?





Assessing the situation

8. *Lockout?*

- Electrical
- Pneumatic
- Hydraulic
- Chemical
- Gravity
- Pressure
- Thermal
- Stored energy



Processing head correctly de-energized for maintenance

Have I tested the system?

Have I achieved zero energy?



Assessing the situation

9. *Trained?*

- Have I been trained for what I am about to do?
- Have the people helping me been trained?
- Am I certified and qualified to perform the function I am about to do?
- Am I familiar with the Safe Work Procedure for this task?





Assessing the situation



10. *Help?*

- **Get a second set of eyes involved. A second opinion on your assessment**
- **Call for certified and qualified assistance. You know what needs to be done but you are not certified and qualified**
- **You can't see a safe solution – **STOP** and ask for help**
- **Asking for help is a sign of strength, trust and leadership. Two minds together can accomplish far more than two minds individually**



Develop a safe solution

Based on 10 step assessment, develop a safe solution.

- Think through the 10 steps thoroughly and develop a plan to complete the task
- Ask yourself, "If I follow my plan, can I deal with the Upset Condition safely"?
- If the answer is "yes", proceed to Act safely to fix the problem
- If the answer is "no"  and call for assistance
- If the answer is "I think so"  and call for assistance



Act safely to fix the problem

Execute the plan as you have developed it

- Take the time to re-examine your situation if it appears you will have to change your plan
- If anything unexpected happens while executing your plan, **STOP**
- Do not carry on with the plan until you know you can
“Act safely to fix the problem”



Report and Record the Upset Condition

- By using the existing close call, near miss or hazard reporting process at your operation or a more formal system like a RADAR recording notebook
- Report in to the supervisor to explain the issue and discuss a permanent solution.....WHY?

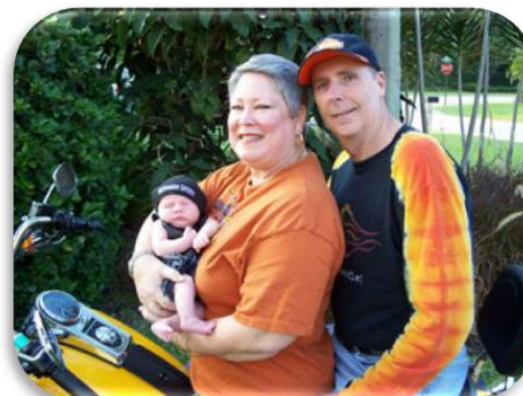
Given the right conditions and time, an unreported Upset Condition is one that will be repeated – and could hurt you.



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Why use RADAR?



For all the things that are important to you...



Test your knowledge

Quick Quiz: Choose the best answer

1. What is RADAR used for?

- a) A process used by any worker to safely address Upset Conditions and prevent injuries from occurring
- b) A technical term used by managers to assess contracts
- c) A process to eliminate the need for all the planning that takes place in the first place
- d) A measure of a person's ability to think in stressful situations



Test your knowledge

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Test your knowledge

- 2. The first “R” in RADAR stands for “Recognize the Risk”. What might indicate that the risk is high and a RADAR assessment should be done.**
- a) You find yourself saying “I think it’s strong enough”**
 - b) You find yourself saying “I know a faster way to do this”**
 - c) You find yourself saying “I know I need help, but I don’t want to ask for it”**
 - d) All of the above**



Test your knowledge

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Test your knowledge

3. Incident reviews show that you are up to _____ times more likely to be injured while working during an upset condition than during normal operating conditions.
- a) 2
 - b) 10
 - c) 35
 - d) 90



Test your knowledge

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Test your knowledge

4. Given the right conditions and time, an unreported Upset Condition is one that will be repeated.

True

False



Test your knowledge

4. Given the right conditions and time, an unreported Upset Condition is one that will be repeated.

True

False

And the more the Upset Condition is repeated, the more likely there will be an injury that results



Test your knowledge

5. I must STOP and NOT proceed with my task if I am unable to come up with a safe solution.

True

False



Test your knowledge

5. I must STOP and NOT proceed with my task if I am unable to come up with a safe solution.

True

False