

Winter Weather

OR: Weather we should go, weather we should stay

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February 11, 2008



Why Care About Weather?

- ◆ Comfort and safety
- ◆ Dictates: clothing, food, gear, and travel decisions
- ◆ Speed of change
- ◆ Local effects: especially above tree-line!

A great day above tree-line...



December, 2004 ...on top of Mount Pierce

...could turn bad...



... like this!

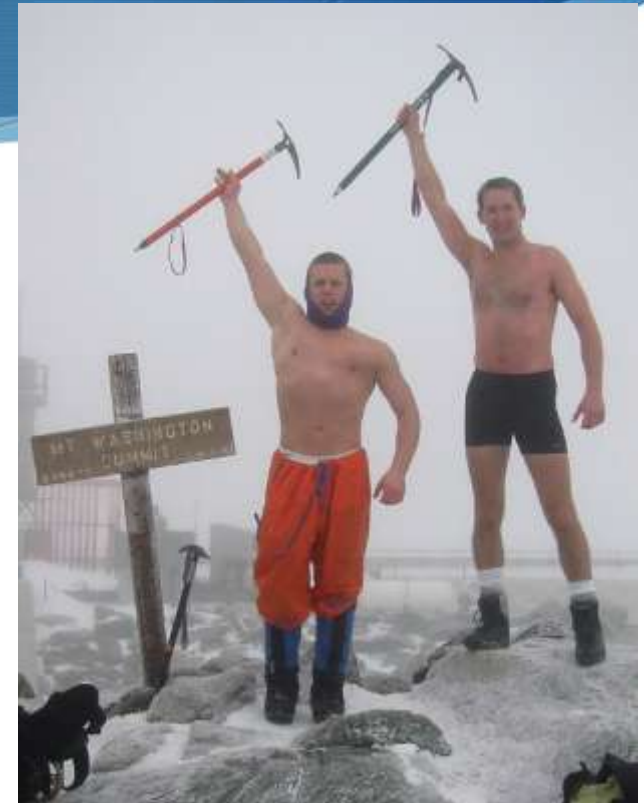


NOVEMBER 11, 2005 ...Mount Madison

Some days are good...



Some days are really good...



...others... not so good



Conditions on 2/6/2000 at Mt. Washington

Weather: Freezing fog

Temp: -12 F (-25 C) **Wind chill:** -60 F

Wind: W 102 mph gusting to 120 mph!!!

Below tree-line on Madison, September 2004



Same day, above tree-line



Temperature

Find your comfort level:

- 30s: Hot, but watch out for rain!
- 20s: Comfortable
 - Several minutes to add layers when stopped
- 10s: Noticeably cold
 - Only a few minutes to add layers
- 0s and below: Very cold



soon as you stop

- Temperature decreases $\sim 3^{\circ}\text{F}$ per 1000ft in elevation, $\sim 1^{\circ}\text{F}$ per 50 miles North Latitude

Expect:

- Lincoln, NH in Jan:
 - Avg high: 27F
 - Avg low: 4F
- Mt. Washington, NH in Jan
 - Avg high: 14F
 - Avg low: -4F

Temperature and You



💧 Hypothermia

- 💧 Core body temperature drops
- 💧 First thing to go is judgment
- 💧 Last thing is life

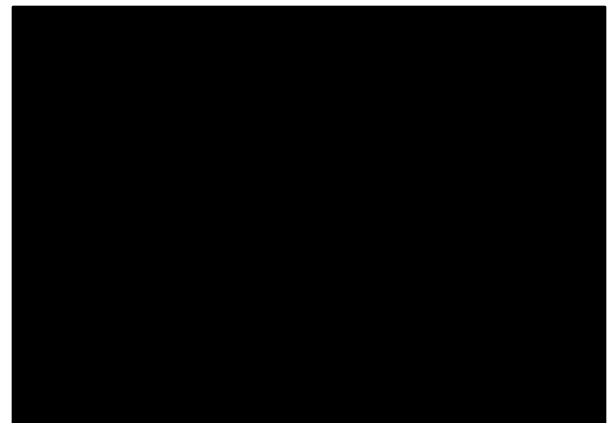


💧 Frostbite

- 💧 Skin, flesh, etc. freezes
- 💧 Can happen in minutes or less
- 💧 Can happen slowly, silently
- 💧 First thing to go is fingers

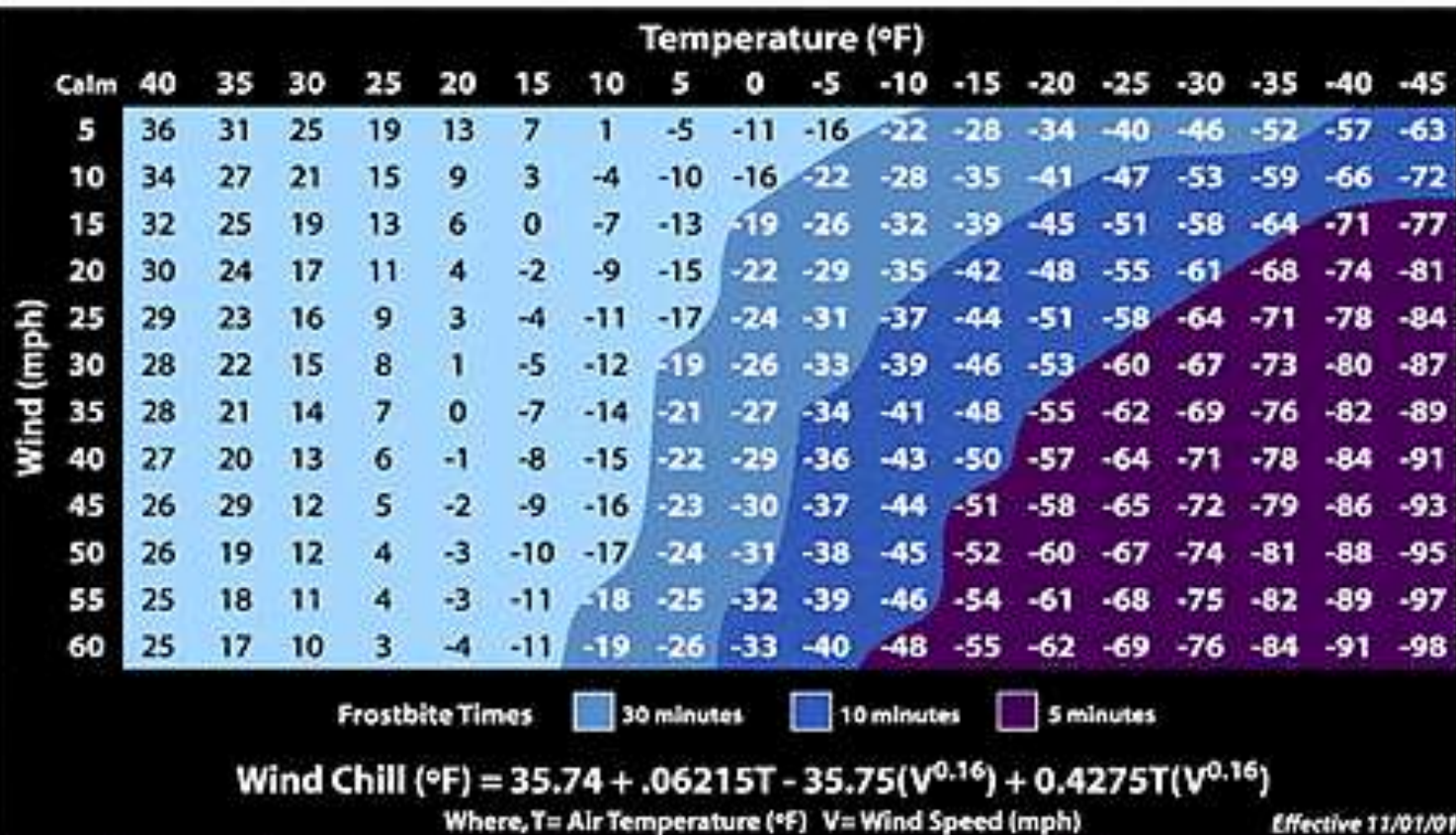
Wind

- ◆ Knocks you off cliffs into trees, rocks, etc
 - ◆ Half your body weight in mph
- ◆ Obstructs verbal communication
 - ◆ Learn semaphore
- ◆ Moves snow around
 - ◆ Reduces visibility
 - ◆ Creates/compounds avy hazard



Temperature + Wind = Forced Convection

Wind Chill Chart



Precipitation

- ◆ Snow and ice complicate travel for humans and cars
 - ◆ Icy trails and roads
 - ◆ Deep powder
 - ◆ Breakable crust
- ◆ Rain is extra scary
- ◆ New precipitation will obstruct visibility and increase avalanche danger



What's the “worst” weather?

- ◆ Warm with precipitation: 30 F (-1 C), heavy rain, windy
- ◆ Cold: -10F (-23C) + 60 MPH (95 kph) wind = feels like -50F
- ◆ Temps drop after rain is the MOST DANGEROUS

In the Whites Mtns, WIND is the biggest concern:

- ◆ It makes you cold (wind chill)
- ◆ It knocks you over (70 MPH enough)
- ◆ It likely makes visibility unreliable
- ◆ It increases avalanche danger

Weather Safety

- ◆ Check the forecast (but don't rely on it!!!)
 - ◆ <http://www.weather.gov> (most reliable forecasts)
 - ◆ <http://www.tuckerman.org> (avalanche forecasts)
 - ◆ <http://www.mountwashington.org>
 - ◆ Daily weather-report
 - ◆ Higher-summits forecast
 - ◆ Backcountry conditions
- ◆ Stay alert to weather changes
 - ◆ Clouds and winds provide big hints

Weather Summary

- ◆ Weather can be very bad in the mountains
- ◆ Weather changes quickly
- ◆ Wind + Cold = Bad, Wet = Very Bad

- ◆ Be concerned about weather BEFORE leaving home!
- ◆ Check forecasts, check the skies often
- ◆ Be alert for FROSTBITE & HYPOTHERMIA

- ◆ **COME PREPARED:**
 - ◆ Clothing
 - ◆ Food
 - ◆ Gear

- ◆ Don't be afraid to go home and come back another day!

Make History!

Scientists: Alpine 'Ice Man' Was Killed by Head Trauma, Not Arrow

Wednesday, August 29, 2007

Associated Press

