

# Streamlines Access LLC



A SPRAT CERTIFIED COMPANY

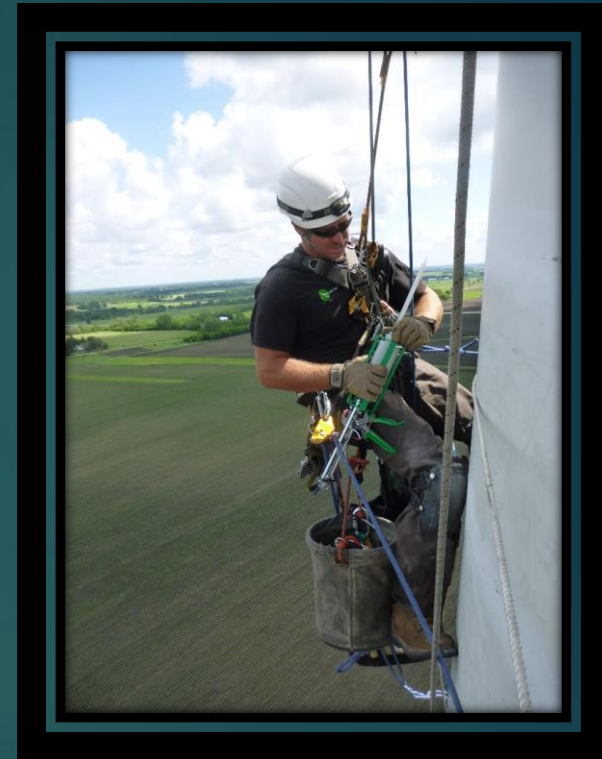
# Introduction

- ▶ Streamlines Access is a professional Rope Access company certified by SPRAT
- ▶ We Specialize in Wind Turbine Composite Blade inspections and repairs along with Nacelle and Tower Cleanings and Coatings
- ▶ With over 10 years experience using Rope Access to service Wind Turbines we stand by our work ethics and integrity.



# Our Services include:

- ▶ Blade Inspections:
  - ▶ Non Destructive visual
  - ▶ Invasive (removing damaged layers exposing internal damage)
- ▶ Blade Repairs:
  - ▶ Leading Edge
    - ▶ Pitting, gouges, cracks
  - ▶ Trailing Edge
    - ▶ Debonding, cracks, chips
  - ▶ Shell
    - ▶ Foam/ Balsa
    - ▶ Fiberglass
  - ▶ Blade Tip
    - ▶ Debonding, cracks, pitting,
- ▶ Blade Maintenance
  - ▶ Leading edge Protective Tape
  - ▶ Blade Balancing
  - ▶ Lightning Protection System repair
  - ▶ Conductivity testing
  - ▶ L.P.S. Receptor replacements
  - ▶ Vortex generator repair/ installation
- ▶ Nacelle
  - ▶ Fiberglass repair
  - ▶ Cleaning and Coatings
- ▶ Tower
  - ▶ Exterior/ interior cleaning and coatings
  - ▶ Landing modifications
  - ▶ Bus Bar modifications



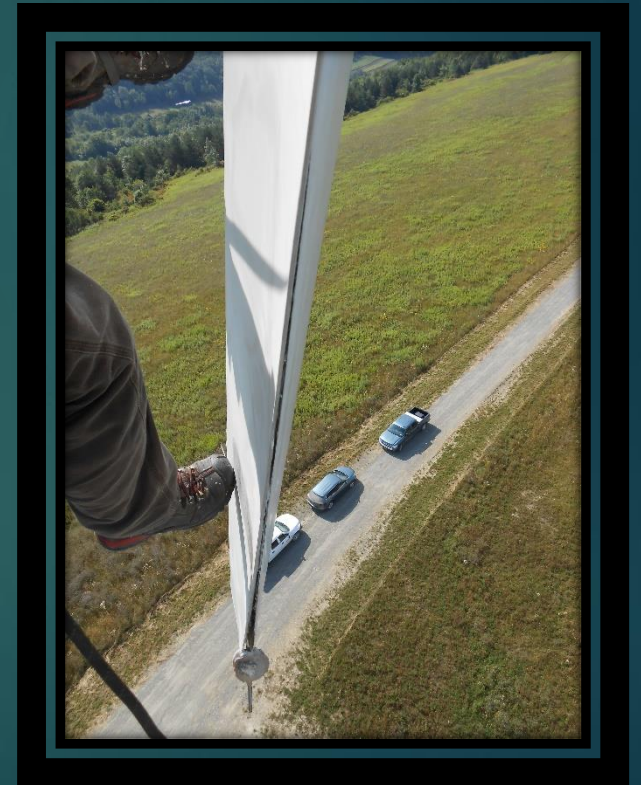
# Experience and Training

- ▶ Streamlines Access Fiberglass Manager Chris Krechmar has been working on Wind Turbines since 2004, working on a wide variety of projects mostly regarding Blade repair and maintenance.
- ▶ Typical projects experienced:
  - ▶ Visual Blade inspections on ropes external and internal
    - ▶ Wear and Tear, Lightning, Blade Manufacturer defects (Root cracking, voids in gel coat/laminate, Lightning Protection Systems, whistling,
  - ▶ Repairs from Lightning Damage
    - ▶ Small holes on the shell to entire blade tip shattered
    - ▶ Lightning Protection System
      - ▶ Conductivity testing (Megger)
      - ▶ Splicing L.P.S cables
      - ▶ Replacing receptors
  - ▶ Repairs from Transportation and Installation
    - ▶ Trailing Edge damage
    - ▶ Shell damage at tie down / lifting points



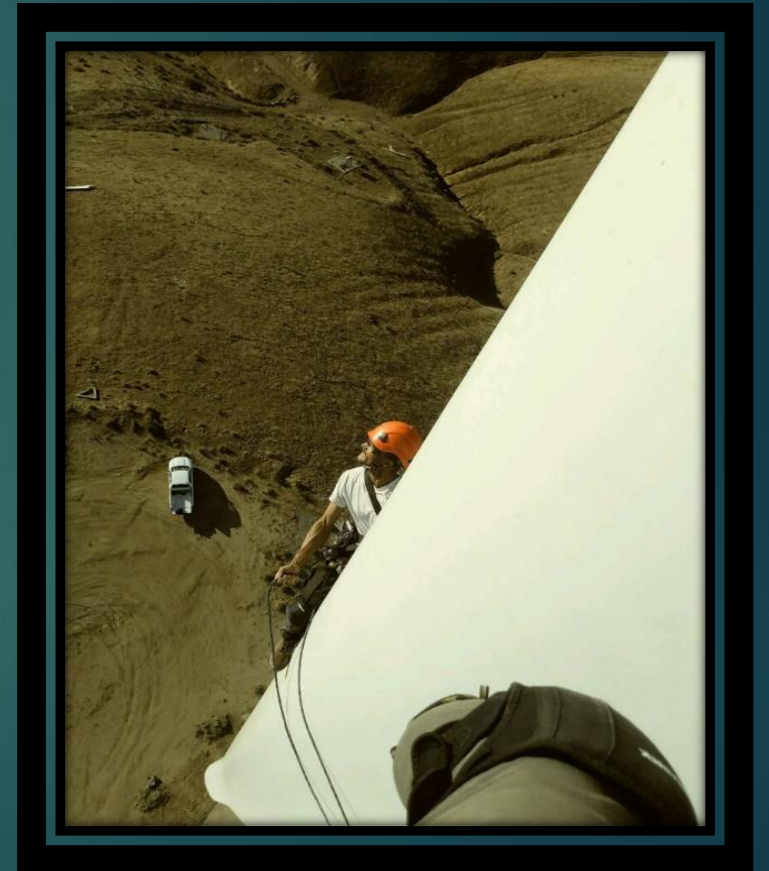
# Experience and Training Continued

- ▶ Typical Projects experienced:
- ▶ Leading Edge Maintenance and Repair
  - ▶ Fiberglass / Gelcoat repair from air pockets and voids during manufacturing
  - ▶ Leading Edge Protection tape installation and repair for general wear and tear where high wind events occur
- ▶ Blade Maintenance
  - ▶ Blade Balancing (in the Tip and in Spar)
  - ▶ Installation and replacement of Vortex generators
  - ▶ Lightning Protection System conductivity test
  - ▶ Pitch Bearing Seal replacement
- ▶ Bus Bar Maintenance
  - ▶ Replacing Bus Bars and cages
  - ▶ Testing Torque on fasteners.



# Experience and Training continued

- ▶ Typical Projects Experienced:
- ▶ Nacelle and Nose Cone repair and Coatings
  - ▶ Fiberglass shell repair
- ▶ Tower Cleanings and Coatings
  - ▶ Internal and External
  - ▶ Tower Landing bolt torqueing
  - ▶ Bus bar retrofitting and inspections





# Streamlines Access LLC

- ▶ [Streamlinesaccess.com](http://Streamlinesaccess.com)
- ▶ Email: [Info@streamlinesaccess.com](mailto:Info@streamlinesaccess.com)
- ▶ Chris Krechmar
  - ▶ Fiberglass Manager
  - ▶ (808) 798-8878
- ▶ Daniel Wells
  - ▶ Project Manager
  - ▶ (541) 340-1773

