

# INTERNATIONAL TREE FAILURE DATABASE - REPORT FORM

\*REQUIRED FIELD

- 1** General Tree Info
- 2** Failure Type
- 3** Failure Specifics
- 4** Structural Defects
- 5** Decay or Injury
- 6** Maintenance History
- 7** Tree Failure Details
- 8** Weather Conditions
- 9** Comments & Save

**1** Tree Genus\* \_\_\_\_\_ Species\* \_\_\_\_\_  
 Cultivar \_\_\_\_\_ Country\* \_\_\_\_\_  
 State/Province\* \_\_\_\_\_ County \_\_\_\_\_  
 DBH\* \_\_\_\_\_ in/cm Height \_\_\_\_\_ ft/m Age \_\_\_\_\_ years  
 Tree/Site Ownership:  Private  Utility  Other or unknown  
 Fed./Nat.: ( NFS  BIA  BLM  DOD  NPS)  
 State/Province  County  Municipal  
 Address/Site name \_\_\_\_\_  
 GPS: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ (NAD83)

**2 FAILURE TYPE\*** (select one)

TRUNK FAILURE

BRANCH FAILURE

ROOT FAILURE

<p><b>3 Trunk Failure Specifics</b>                  Height of failure above grade* _____ ft/m                  Dia. at break (inside bark)* _____ in/cm</p> <p><b>4 Defects Associated with Failure</b></p> <p><input type="checkbox"/> None  <input type="checkbox"/> Unknown  <input type="checkbox"/> Failed portion dead  <input type="checkbox"/> Decay <input type="checkbox"/> Canker Species: _____  <input type="checkbox"/> Multiple trunks/codominant stems  <input type="checkbox"/> Dense Crown <input type="checkbox"/> Flush cuts  <input type="checkbox"/> Topped <input type="checkbox"/> One-Sided  <input type="checkbox"/> Low live crown ratio <input type="checkbox"/> Included Bark  <input type="checkbox"/> Bow <input type="checkbox"/> Crook <input type="checkbox"/> Sweep/corrected lean  <input type="checkbox"/> Uncorrected lean  <input type="checkbox"/> Cracks in wood:  <input type="radio"/> Vertical <input type="radio"/> Horizontal  <input type="checkbox"/> Lightning Injury <input type="checkbox"/> Animal Injury  <input type="checkbox"/> Fire Injury <input type="checkbox"/> Insect Injury  <input type="checkbox"/> Mechanical Injury <input type="checkbox"/> Girdling</p> <p><b>5 Location of Decay</b></p> <p><input type="checkbox"/> HEARTWOOD                  Avg. sound wood thickness _____ in/cm                  Opening (cavity) at failure? <input type="radio"/> No  <input type="radio"/> Yes, opening _____% of trunk circ.  <input type="checkbox"/> SAPWOOD                  Avg. depth of rot _____ in/cm                  Circumference rotted _____%</p> <p><b>Type of Decay</b></p> <p><input type="checkbox"/> Unknown <input type="checkbox"/> Brown rot  <input type="checkbox"/> Canker rot <input type="checkbox"/> White rot                  Conks/mushrooms/other signs? <input type="radio"/> No  <input type="radio"/> Yes Name: _____                  Distance from conk to failure: _____ ft/m</p> <p><b>6 Hardware</b></p> <p><input type="checkbox"/> None  <input type="checkbox"/> Girdling hardware  <input type="checkbox"/> Other device  <input type="checkbox"/> Cable <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Guying <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Prop <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Brace/bolt <input type="radio"/> Intact <input type="radio"/> Failed</p>	<p><b>3 Branch Failure Specifics</b>                  Dia. at break (inside bark)* _____ in/cm                  Total length failed branch _____ ft/m                  Break at attachment: <input type="radio"/> Yes <input type="radio"/> No                  If No, distance from the attachment to break: _____ ft/m</p> <p><b>4 Defects Associated with Failure</b></p> <p><input type="checkbox"/> None <input type="checkbox"/> Unknown  <input type="checkbox"/> Failed portion dead <input type="checkbox"/> Decay  <input type="checkbox"/> Dense Crown  <input type="checkbox"/> Heavy lateral limbs/Heavy ends  <input type="checkbox"/> Included bark <input type="checkbox"/> Crook  <input type="checkbox"/> Failed portion is an epicormic branch  <input type="checkbox"/> Cracks in wood  <input type="checkbox"/> Mistletoe or epiphyte  <input type="checkbox"/> Mechanical Injury <input type="checkbox"/> Lightning Injury  <input type="checkbox"/> Insect Injury <input type="checkbox"/> Animal Injury  <input type="checkbox"/> Canker/Gall                  Species _____</p> <p><b>5 Location of Decay</b></p> <p><input type="checkbox"/> HEARTWOOD                  Avg. sound wood thickness _____ in/cm                  Opening (cavity) at failure? <input type="radio"/> No  <input type="radio"/> Yes, opening _____% of branch circ.  <input type="checkbox"/> SAPWOOD                  Avg. depth of rot _____ in/cm                  Circumference rotted _____%</p> <p><b>Type of Decay</b></p> <p><input type="checkbox"/> Unknown <input type="checkbox"/> Brown rot  <input type="checkbox"/> Canker rot <input type="checkbox"/> White rot                  Conks/mushrooms/other signs? <input type="radio"/> No  <input type="radio"/> Yes Name: _____                  Distance from conk to failure: _____ ft/m</p> <p><b>6 Hardware</b></p> <p><input type="checkbox"/> None  <input type="checkbox"/> Girdling hardware  <input type="checkbox"/> Other device  <input type="checkbox"/> Cable <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Guying <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Prop <input type="radio"/> Intact <input type="radio"/> Failed  <input type="checkbox"/> Brace/bolt <input type="radio"/> Intact <input type="radio"/> Failed</p>	<p><b>3 Root Failure Specifics*</b> (select one)</p> <p><input type="radio"/> <b>Roots broken</b>                  Dia. of largest broken root _____ in/cm                  Distance from break to trunk _____ ft/m                  Condition of broken roots:  <input type="checkbox"/> Dead, no decay <input type="checkbox"/> Decayed  <input type="checkbox"/> Live, no decay <input type="checkbox"/> Unknown</p> <p><input type="radio"/> <b>Roots cut/severed</b> (not decayed or broken)                  Dia. of largest broken root at cut _____ in/cm                  Distance from trunk to cut _____ ft/m                  % of roots cut _____</p> <p><input type="radio"/> <b>Root plate lifted out of ground</b>                  Root plate radius _____ ft/m                  Root plate depth _____ in/cm</p> <p><input type="radio"/> <b>Root restricted due to:</b>  <input type="checkbox"/> Container <input type="checkbox"/> Root barrier  <input type="checkbox"/> Sidewalk/curb <input type="checkbox"/> Wall/foundation  <input type="checkbox"/> Natural Feature <input type="checkbox"/> Other                  Distance from trunk to restriction _____ ft/m                  % of root zone restricted _____                  Root collar girdled? <input type="checkbox"/> Yes <input type="checkbox"/> No                  % circumference girdled _____</p> <p><b>Site/Soils Conditions</b>                  Soil composition: <input type="radio"/> Sand <input type="radio"/> Silt <input type="radio"/> Loam  <input type="radio"/> Clay <input type="radio"/> Rock/gravel <input type="radio"/> Unknown                  Soil moisture at time of failure: <input type="radio"/> Unknown  <input type="radio"/> Dry <input type="radio"/> Saturated <input type="radio"/> Moist <input type="radio"/> Flooded                  Restricted rooting depth due to:  <input type="checkbox"/> Poor drainage <input type="checkbox"/> Shallow or layered soil  <input type="checkbox"/> High water table <input type="checkbox"/> Compacted <input type="checkbox"/> Other                  Other Site Conditions:  <input type="checkbox"/> Soil eroded <input type="checkbox"/> Compaction  <input type="checkbox"/> Grade change <input type="checkbox"/> Well surrounds trunk  <input type="checkbox"/> Fill soil against trunk or planted too deep                  Depth of excess soil _____ in/cm</p> <p><b>4 Defects associated with failure</b></p> <p><input type="checkbox"/> None <input type="checkbox"/> Unknown  <input type="checkbox"/> Fire scar/injury <input type="checkbox"/> Basal wound  <input type="checkbox"/> Low live crown ratio  <input type="checkbox"/> Corrected lean (sweep)  <input type="checkbox"/> Uncorrected lean <input type="checkbox"/> Animal Injury  <input type="checkbox"/> Cracks in trunk prior to failure  <input type="checkbox"/> Surface roots or root collar wounded</p> <p><b>5 Location of Decay</b>                  % of roots decayed _____                  Conks/mushrooms/other signs?  <input type="checkbox"/> No <input type="checkbox"/> Yes Name: _____                  Avg. sound wood thickness _____ in/cm                  Type: <input type="checkbox"/> Unknown <input type="checkbox"/> Brown rot <input type="checkbox"/> White rot</p> <p><b>6 Surface Treatment</b> <input type="checkbox"/> Unknown  <input type="checkbox"/> Mulch <input type="checkbox"/> Bare soil <input type="checkbox"/> Turf  <input type="checkbox"/> Ground cover <input type="checkbox"/> Natural forest litter  <input type="checkbox"/> Gravel/rock <input type="checkbox"/> Pavement <input type="checkbox"/> Other</p> <p><b>Irrigation:</b> <input type="radio"/> Unknown  <input type="radio"/> Infrequent <input type="radio"/> Frequent <input type="radio"/> Never</p>
---	---	--

**7 ADDITIONAL INFORMATION**  
**Tree Condition and Pruning History**

<p>Were the defects associated with failure visible before the tree failed?  <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown</p> <p>At time of failure the tree was:  <input type="radio"/> Dead <input type="radio"/> Declining <input type="radio"/> Alive</p> <p>Was there construction around this tree?  <input type="radio"/> Yes <input type="radio"/> No          If Yes, when _____ years ago</p>	<p><b>PRUNING HISTORY</b></p> <p><input type="checkbox"/> No pruning <input type="checkbox"/> Cleaned <input type="checkbox"/> Lions-tailed</p> <p><input type="checkbox"/> Thinning:  <input type="radio"/> Proper <input type="radio"/> Excessive</p> <p><input type="checkbox"/> Reduction/Directional pruning:  <input type="radio"/> Proper <input type="radio"/> Excessive</p> <p><input type="checkbox"/> Crown raised _____% of height</p> <p><input type="checkbox"/> Topped Diameter of stub at cut _____ in/cm</p>
---	---

**Habitat Information**

<p>Trees recently removed in the vicinity of the failed tree:  <input type="radio"/> Yes <input type="radio"/> No</p> <p>History of prior failures at site:  <input type="radio"/> Yes <input type="radio"/> No</p>	<p><b>Setting</b></p> <p><input type="radio"/> Forest <input type="radio"/> Campground  <input type="radio"/> Picnic area <input type="radio"/> Trailhead  <input type="radio"/> Other developed forest site  <input type="radio"/> Commercial site / Institution  <input type="radio"/> Street tree / Median-Urban  <input type="radio"/> Road side - Rural  <input type="radio"/> Utility right-of-way  <input type="radio"/> Yard / Garden  <input type="radio"/> Park - Urban <input type="radio"/> Golf course  <input type="radio"/> Parking lot <input type="radio"/> Other</p>	<p><b>Aspect</b></p> <p><input type="radio"/> N <input type="radio"/> NE  <input type="radio"/> E <input type="radio"/> SE  <input type="radio"/> S <input type="radio"/> SW  <input type="radio"/> W <input type="radio"/> NW  <input type="radio"/> Not applicable / Flat</p> <p><b>Slope</b></p> <p><input type="radio"/> No slope <input type="radio"/> &lt;5  <input type="radio"/> 5-15 <input type="radio"/> 15-30  <input type="radio"/> 30-45 <input type="radio"/> &gt;45</p>
---	--	---

**Date / Time of Failure**

Date / Season Unknown

Date of failure (Mo/Day/Yr): \_\_\_\_\_ **OR** Season of failure:  
 Time of failure hour \_\_\_\_\_  Spring  Summer  Fall  Winter  
 A.M.  P.M.  Unknown Year \_\_\_\_\_

**8 WEATHER AND OTHER FORCES AT TIME OF FAILURE**

Unknown Temperature (approx.) \_\_\_\_\_ °F/°C  
 Wind speed (approx.) \_\_\_\_\_ mph/kph Precipitation:  None  Rain  Snow  Ice  Unknown

**9 CAUSE / RESULT OF TREE FAILURE**

Why did this failure occur?

Result of tree failure:  
 None (No damage other than the failure described)  Property damage  Personal injury  
 Fire  Power outage  Removal of this tree  Loss of other trees  Other damage

Property damage estimate \$ \_\_\_\_\_ (US) Cleanup costs \$ \_\_\_\_\_ (US) If personal injury describe below.  
 Additional Comments (injury, target, damage, etc.):