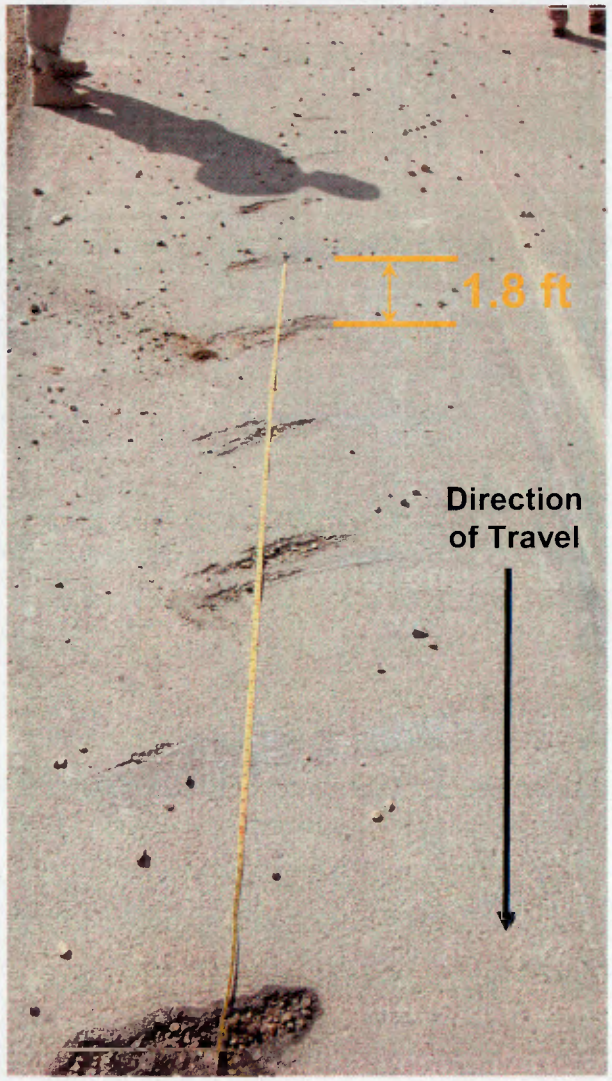
Blade Strike Marks:



- **Blade tip strike marks can be useful in determining aircraft ground speed (GS) at that time**

$$\text{GS (kts)} = \frac{\text{(RPM) * (\# of Blades) * (spacing between tip marks)}}{100.1}$$

- **For example, using the case shown:**
  RPM = 1020 (assumed 100%)
  P-3 has 4 blades
  Spacing = 1.8 ft (average)
  GS = 1020 * 4 * 1.8 / 100.1 = 73 kts

- **Limitations to this calculations:**
  - Accurate only in shallow angle cases such as gear up landings, aborted take offs, & crash landings
  - If angle is greater the 5 deg – tip mark spacing not recommended to determine ground speed
    - Sudden stoppage can occur after the first strike, causing RPM to slow dramatically
    - Spacing will be closer
  - Accurate RPM must be known or assumed
- Measure spacing starting with the first mark (unlike the photo)
- Strike orientation can provide rough order blade pitch
- If possible, take overhead photo