Blade Strike Marks:

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

\[
GS \text{ (kts)} = \frac{(RPM) \times (\# \text{ of Blades}) \times (\text{spacing between tip marks})}{100.1}
\]

• For example, using the case shown:
  RPM = 1020 (assumed 100%)
  P-3 has 4 blades
  Spacing = 1.8 ft (average)
  \[
  GS = \frac{1020 \times 4 \times 1.8}{100.1} = 73 \text{ kts}
  \]

• 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