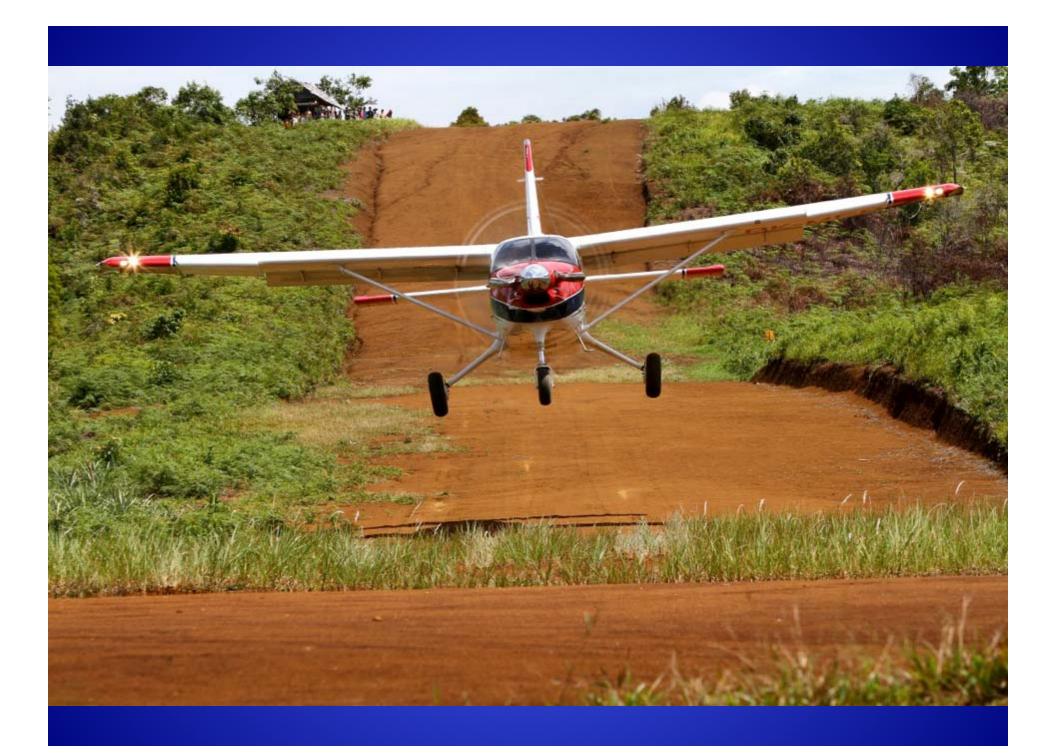
- COMMUNICATION
- LACK OF INFORMATION
- PERFORMANCE DATA
- NAVIGATION FACTORS
- ENVIRONMENT
- HUMAN FACTORS









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### COMMUNICATION

- Language proficiency
  - Air to Air
    - Varying levels of ability English as second language.
    - deviation from standard phraseology
  - Air to Ground
    - Indonesian as second language
    - Local jargon
    - Local knowledge
    - Ground station maintenance

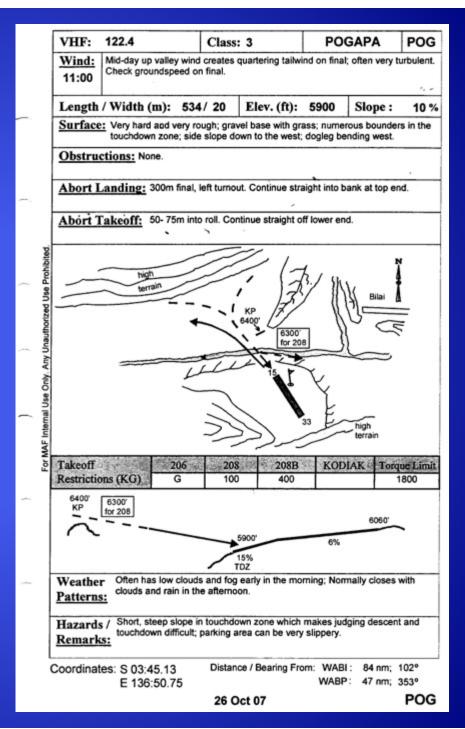
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#### LACK OF INFORMATION

- ◆Local weather
  - ref. communication issues
  - ATIS not always current
- ◆Local area
  - A-port Freq. change not NOTAM-ed
  - RWY lights inop...no NOTAM, found out on descent
- ◆Airstrip layout

◆No Published Docs.

 Operators maintain their own documents



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#### PERFORMANCE DATA

- Inaccurate loading information
  - Carry a scale
  - Sanctions for deliberate overload
- Lack of tabulated data
  - High temp/High altitude ops
  - Noted actual performance on strip chart
  - Training for various configurations:

#### **HITADIPA Checkout Training Plan** Chief Pilot Airstrip "down in a hole" requires steep approaches and departures. Notes: WindLasso: Read and memorize all items. Verbalize during checkout, as well as all other landings at this strip. T/O Emerg. River sand bars, cleared areas on right side. **Lndg Areas** Identified: DO One. Make several circuits around the valley at 5300 Airstrip **Evaluation:** Approach DO Two. Do empty or lightly loaded. Do one at correct point: 5300 Abort: Walk DO One. Touchdown end overrun rough and steep. Check approach and Airstrip: departure path with inclinometer. Note rock wall at helipad at upper end. Normal T/O N/A All takeoffs and landings are Max Performance; see item 6 below. and Landing: Unless fuel imbalance exists favoring left tank, recommend 206 takeoff with right tank selected because of right dogleg turn on takeoff roll and possibility of un-porting tank lines to left reservoir. Recommend full power check before brake release. DO One. landing. Substitute by simulating a slippery strip condition. Soft Field Make slow -5k approach and use aerodynamic braking during the initial Technique: portion of landing roll followed by light braking. Max Perf. DO Three. -5k on approach. Terrain and desire to keep end of strip in Technique: sight can cause approach angle and rate of descent to be higher, up to 700fpm. Be alert for float; get wheels on the ground and immediately check braking. On departure, retract flaps an Special Purp. DO One. Updraft/Tailwind Landing Technique with +5kt. Surface must be dry. Simulate wind degraded climb performance or cloud Technique: obstruction, with a departure at 5100 Close DO One. Follow river then make left turn past KP in Circuit: Hazards / Carefully review and discuss strip chart notations.

Remarks:

Takeoff perf. data: dry, short grass. Data is Self Checkout Min (Hrs.): not approved demonstrated performance. Aircraft Runway Loading DenAlt Wind Liftoff Clear obstacle by (feet) % %

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#### NAVIGATION FACTORS

- Non-published local procedures
  - Position Reporting
  - Established routes
  - Established procedures
  - Non-compliance by some to est. norms

#### NAVIGATION FACTORS

- Nav information not accurate
  - AIP changes not always communicated to other info providers, eg Jeppesen.
  - ILS goes inop. during t-storm.
- Non-standard and unusual vectoring due to high traffic volumes combined with old ATC technology.
  - Long delays and early holds.

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#### **ENVIRONMENT**

- Runway dimensions and Markings
- Airport equipment (Fire Equip) not necessarily in operating condition.
- Crowd control
- Airstrip maintenance
  - Cooperation with locals
  - Accountability for airstrip environment

### **ENVIRONMENT**: before



### **ENVIRONMENT**: after



- COMMUNICATION
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#### **HUMAN FACTORS**

- Mission pressure
  - self
  - peers
  - management
  - customer
  - Company culture: Who is PIC? Who has Operational Control?

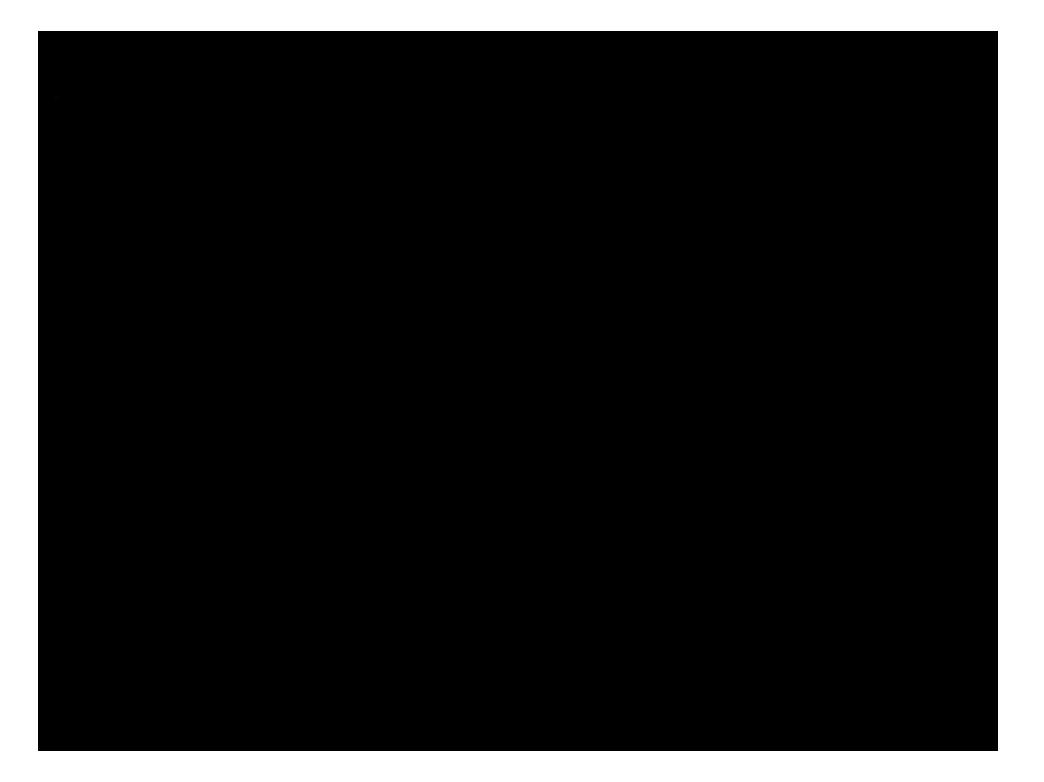
#### **HUMAN FACTORS**

- Fatigue
  - Accountability in Duty Time observance
- Training
  - Realistic and recurring training environment
  - Train the way you fly, Fly the way you train.

### **HUMAN FACTORS**

Company Culture:

Celebrate conservative decision making



### THANK YOU