

PILOT A: ANALYZING THE RISKS

Let's apply the FAA's formal Personal Minimums Checklist, also known by the acronym PAVE, for Pilot, Aircraft, enVironment and External pressures. The PAVE checklist can be used to organize one's thoughts during pre-flight planning and assessing the various risk factors any given flight may include.

PILOT

Pilot A has poorly managed both his qualification and aeromedical issues. The quality and recency of his instrument currency, although legal, is suspect. He is not adequately rested, he may still be feeling the effects of the previous evening (despite not being "under the influence") and he skipped both breakfast and lunch. These effects are exacerbated by the fatigue in hand-flying the Bonanza for four hours. Folks, I have a 1980 Bonanza also and, wonderful machine that it is, it is not what I call a stable instrument platform even when perfectly in trim. That's why the autopilot is a critical risk management item.

Pilot

Aircraft

EnVironment

External Pressures

AIRCRAFT

All right, I confess that I gave him multiple failures to contend with but many pilots fly similar missions with single point vulnerabilities in aircraft systems and avionics. But the biggest risk Pilot A took was not planning on a fuel stop. Even perfectly functioning aircraft suffer progressive loss of capability as fuel is consumed and the remaining radius of action is reduced. He would have better options at Harrisburg if he still had 3+45 hours remaining, rather than 1+45.

ENVIRONMENT

Pilot A was faced with weather and terrain threats on this flight, but it's the combination of low IFR and night operation that leaves him in dire straits at Harrisburg.

EXTERNAL PRESSURES

Pilot A could have bought himself more time by leaving earlier and this would have mitigated some of the other risks also.

Risk Assessment Matrix

	Severity			
Likelihood	Catastrophic	Critical	Marginal	Negligible
Probable	High	High	Serious	
Occasional	High	Serious		
Remote	Serious	Medium		Low
Improbable		Medium		

RISK ASSESSMENT AND MITIGATION

None of this is rocket science, and Pilot A should have been able to identify the risks and assess them using a risk assessment matrix such as is contained in the FAA's *Risk Management Handbook* (FAA-H-8083-2) and illustrated above.