Test Hazard Analysis Worksheet

Test Title:

Takeoff & Landing Demo

Aircraft/System:

TBD

Hazard Category	Subjective Probability of Occurrence				
	high	probable	uncertain	remote	improbable
catastrophic					
critical					
marginal					
negligible					

High

Medium

Low

Hazard:

Running off the runway

Cause:

Blown tire

Effect:

Aircraft damage and/or aircrew injury

Minimizing Procedures:

a. Pilots will be restricted to light to moderate braking with smooth application only during landing performance data points. Flight briefings will emphasize the potential hazard of blown tires. In a training environment the last 10% of performance is not worth ***any*** aircraft damage or aircrew injury. Aircrews will estimate where they could have stopped with more aggressive braking.
b. Discontinue testing if heavier than normal braking was inadvertently used or was necessary for an unexpected reason.
c. To maximize brake, tire, and wheel cooling, do not retract gear between multiple takeoffs and landings.

Emergency Procedures:

(1) If it is suspected that a tire has been blown, the aircraft will stopped on the runway and inspected with no attempt to clear runway.
(2) If a blown tire is suspected on takeoff and the takeoff was continued, do not retract gear and follow chcklist for landing with a blown tire (land on the side of the runway opposite the blown tire without other guidance).

Risk Level (after minimizing procedures taken into account):

High ____ Medium ____ Low __X__

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TBD

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	high	probable	uncertain	remote	improbable
catastrophi					
critical					
marginal					
negligible					

High

Medium

Low

Hazard:

Running off the runway

Cause:

Insufficient runway remaining

Effect:

Aircraft damage and/or aircrew injury

Minimizing Procedures:

To the maximum extent practical, runway 30 will be used to make the maximum runway length available during these tests.

a. If winds exceed a 5 kt tailwind or there is insufficient runway remaining before the grid for a runway 30 takeoff, runway 12 may be used for takeoff. In this event, the first takeoff must be planned with a 100% pad on predicted takeoff distance to 50 ft. Subsequent takeoffs may be adjusted as required to ensure that the aircraft is within the limits of the grid at 50 ft.
b. Runway 30 will be used for all landing data points using the grid for data.
c. If the predicted landing distance from 50 ft exceeds 3,000 ft, the grid will not be used and the pilot will pick an aimpoint within the first 1,000 ft of the runway.

Emergency Procedures:

Shut aircraft down and exit aircraft.

Risk Level (after minimizing procedures taken into account):

High ____ Medium ____ Low __X__

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TBD

Hazard Category	Subjective Probability of Occurrence				
	high	probable	uncertain	remote	improbable
catastrophic					
critical	High		Medium		
marginal				Low	
negligible					

Hazard:

Hard Landing

Cause:

Early flare resulting in a high stall or late flare

Effect:

Aircraft damage and/or aircrew injury

Minimizing Procedures:

Pilots will conform to current AC 23-8A procedures prohibiting techniques that require the pilot below 50 ft to lower the nose to maintain speed or to add power to arrest sink rate at the last moment. Procedures to be used are:

a. The pilot will arrive at 50 ft stabilized on speed (minimum of 1.3 V_S) with power set to maintain a steady, 3° glide slope.
b. After passing 50 ft, the pilot will nominally maintain a constant speed, power, attitude, and glide path angle until a normal flare altitude. The flare altitude will be such that once the flare is initiated the power can come smoothly to idle in one continuous, expeditious motion, and the pitch attitude will only increase.

Emergency Procedures:

Risk Level (after minimizing procedures taken into account):

High ____ Medium ____ Low __X__