RUNWAY SAFETY AND INCURSION PREVENTION PANEL

ALERT: ENGINEERED MATERIALS ARRESTING SYSTEMS (EMAS)

EMAS is an arresting system designed for transport category aeroplanes in the event of a runway overrun. An EMAS bed is designed to stop an overrunning aeroplane by exerting predictable deceleration forces on its landing gear as the EMAS material crushes. The arrester bed is designed to decelerate the aeroplane without structural failure to the landing gear. To date, there are 55 EMAS installations worldwide and 51 can be found at U.S airports. While there are currently no EMAS installations at any Canadian airports, plans are underway at Toronto Pearson for installing EMAS on some of their runways in the 2013-2014 timeframe.

Ref: *http://www.tc.gc.ca/eng/civilaviation/publications/tp14371-aga-9-0-2534.htm*

Concern

Pilots should be aware that there are specific procedures to follow when entering an EMAS

Prior to using a runway, pilots should check for the presence of an EMAS bed. This can be accomplished by a review of the aerodrome sketch and other aerodrome information.

During an emergency diversion to an alternate airport, pilots should ascertain with ATC whether the intended landing runway is served by an EMAS bed.

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Recommendation

If a pilot determines that the aircraft will exit the runway end and enter the EMAS bed during the takeoff or landing phase, the following practices should be considered to ensure that the aircraft engages the EMAS according to design entry parameters and thereby derive the maximum benefit the system provides:

1) Continue deceleration -- Regardless of aircraft speed upon exiting the runway, continue to follow rejected/aborted takeoff procedures, or if landing, braking procedures outlined in the flight manual.
2) Maintain runway centerline -- Continue straight ahead into the EMAS bed to maximize its stopping capability. The quality of deceleration is best within its confines.
3) Once stopped -- do not attempt to taxi or otherwise move the aircraft.
4) On smaller aircraft (CRJ type) flight attendants should be aware that the airstairs will not extend to their full range and may cause a blockage of that particular exit.

For specific operational guidance regarding procedures to follow when engaging an EMAS bed, pilots should refer to their company policy.
