NOTICE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Air Traffic Organization Policy

N JO 7110.551

Effective Date:
April 8, 2011

Cancellation Date:
August 25, 2011

SUBJ: Low Level Wind Shear/Microburst Advisories

1. Purpose of This Notice. This notice amends Federal Aviation Administration (FAA) Order JO 7110.65, Paragraph 3-1-8, Low Level Wind Shear/Microburst Advisories.

2. Audience. This notice applies to the following Air Traffic Organization (ATO) service units: En Route and Oceanic, Terminal, Mission Support, and System Operations; and all associated air traffic control facilities.

3. Where Can I Find This Notice? This notice is available on the MyFAA employee web site at https://employees.faa.gov/tools_resources/orders_notices/ and on the air traffic publications web site at http://www.faa.gov/air_traffic/publications/.

4. Explanation of Policy Change. A communication disconnect exists between the air traffic control (ATC) and pilot communities concerning go-around maneuvers initiated by the flight crew in response to wind shear notification by on board detection equipment. These go-arounds are known to pilots as "wind shear escape" maneuvers. To date, air traffic controllers have been unaware of the difference between ATC-initiated go-arounds and wind shear escape maneuvers.

The Aviation Safety Action Program has generated many reports regarding ATC-assigned altitudes during wind shear escape maneuvers. Flight crews are prohibited from operating in known or forecasted wind shear conditions. By definition, when a flight crew is responding to a predictive windshear escape, they are in fact in a wind shear. Similar to a TCAS RA maneuver, the flight crew is first tasked with escaping the wind shear event and then complying with ATC instructions.

Currently, there is no guidance in JO 7110.65 that outlines wind shear escape maneuvers. This change provides clarity of the wind shear escape maneuver as well as exempting ATC from any loss of standard separation between the escaping aircraft and any other aircraft under their jurisdiction.

5. Procedures.

a. Amend FAA Order JO 7110.65, paragraph 3-1-8, to read as follows:

3-1-8. LOW LEVEL WIND SHEAR/MICROBURST ADVISORIES

Title through b, no change.

1. At locations equipped with LLWAS, the local controller must provide wind information as follows:

NOTE through b2(d), no change.

(e) The LLWAS NE++ and LLWAS-RS are designed to operate with as many as 50 percent of the total sensors inoperative. When all three remote sensors designated for a specific runway arrival or

departure wind display line are inoperative then the LLWAS NE++ and LLWAS-RS for that runway arrival/departure must be considered out of service. When a specific runway arrival or departure wind display line is inoperative and wind shear/microburst activity is likely; (for example, frontal activity, convective storms, PIREPs), the following statement must be included on the ATIS, "WIND SHEAR AND MICROBURST INFORMATION FOR RUNWAY (number) ARRIVAL/DEPARTURE NOT AVAILABLE."

NOTE, no change.

c. Wind Shear Escape Procedures.

1. If an aircraft under your control informs you that it is performing a wind shear escape, do not issue control instructions that are contrary to pilot actions. ATC should continue to provide safety alerts regarding terrain or obstacles and traffic advisories for the escape aircraft, as appropriate.

EXAMPLE-
"Denver Tower, United 1154, wind shear escape."

NOTE-
Aircraft that execute a wind shear escape maneuver will usually conduct a full power climb straight ahead and will not accept any control instructions until onboard systems advise the crew or the pilot in command (PIC) advises ATC that the escape maneuver is no longer required.

REFERENCE-
P/CG Term – Wind shear Escape

2. Unless advised by additional aircraft that they are also performing an escape maneuver, do not presume that other aircraft in the proximity of the escape aircraft are responding to wind shear alerts/events as well. Continue to provide control instructions, safety alerts, and traffic advisories as appropriate.

3. Once the responding aircraft has initiated a wind shear escape maneuver, the controller is not responsible for providing standard separation between the aircraft that is responding to an escape and any other aircraft, airspace, terrain, or obstacle. Responsibility for separation resumes when one of the following conditions are met:

(a) Departures:

(1) A crew member informs ATC that the wind shear escape maneuver is complete and ATC observes that standard separation has been re-established, or

(2) A crew member informs ATC that the escape maneuver is complete and has resumed a previously assigned departure clearance/routing.

(b) Arrivals:

(1) A crew member informs ATC that the escape maneuver is complete, and

(2) The aircrew has executed an alternate clearance/instruction or requested further instructions.

NOTE-
When the escape maneuver is complete, the flight crew must advise ATC they are returning to their previously assigned clearance or request further instructions.

EXAMPLE-
"Denver Tower, United 1154, wind shear escape complete, resuming last assigned heading/ (name) DP/clearance

Or

"Denver Tower, United 1154, wind shear escape complete, request further instructions."

b. Add the following definition of Wind Shear Escape to the Pilot/Controller Glossary to read as follows:

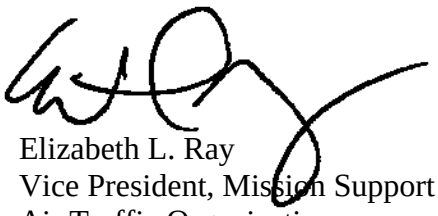
WIND SHEAR ESCAPE – An unplanned abortive maneuver initiated by the pilot in command (PIC) as a result of onboard cockpit systems. Wind shear escapes are characterized by maximum thrust climbs in the low altitude terminal environment until wind shear conditions are no longer detected.

6. Distribution. This notice is distributed to the following ATO service units: Terminal, En Route and Oceanic, Mission Support, and System Operations; the ATO Office of Safety; the Air Traffic Safety Oversight Service; the William J. Hughes Technical Center; and the Mike Monroney Aeronautical Center.

7. Background. In 1988, the Federal Aviation Administration (FAA) directed that all commercial aircraft must install onboard PWS detection systems by the end of 1993. These PWS detection systems process data from standard aircraft instruments to determine the presence of wind shear. The system advises a pilot of a potential wind shear event that allows for an increase in engine power and possible escape of the hazard. Upon receiving an alert, the flight crew may opt to abort take-off, perform a go-around, or execute a wind shear escape maneuver.

PWS detection equipment is not mandatory on general aviation (GA) aircraft; therefore, pilots flying GA aircraft may manually detect the presence of a wind shear event and also execute a wind shear escape maneuver.

This system is separate from existing low level wind shear equipment located in air traffic control facilities.



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March 2, 2011
Date Signed