Cooperative Development of Operational Safety and Continuing Airworthiness
Under ICAO Technical Co-operation Programme

COSCAP-South Asia

ADVISORY BULLETIN
FOR SERVICE PROVIDERS

Subject: **ISSUANCE OF SAFETY ALERT / WARNING**

Date: **26 December 2005**

Initiated by: **COSCAP-SA**

AB No: **AB (SA) 007**

1. PURPOSE

1.1 The purpose of this Advisory Bulletin is to ensure that all controllers are aware of the need to issue 'Safety Alert / Warning' when circumstances so warrant.

2. BACKGROUND

2.1 A fatal air crash occurred in mountainous terrain shortly after completion of a radar handoff and communications transfer from an area to an approach unit. The aircraft took a descent clearance issued by the approach controller intended for another aircraft with a similar callsign. The approach controller did not catch the incorrect read back or observe the aircraft's descent

2.2 The aircraft was operating at the minimum flight altitude at the time of the transfer so the area controller received an en route minimum safe altitude warning (MSAW) when the aircraft began its descent. The area controller suppressed the MSAW alert after approximately one minute and subsequently suppressed display of the data block but did not contact / alert the approach controller.

2.3 The computer entry of a message suppressing or inhibiting MSAW alerts constitutes acknowledgement for the alert and indicates that action has or will be taken to resolve the situation.

2.4 Had the area controller correctly applied the safety alert procedure the controller would have been notified of the MSAW alert possibly averting the accident.

3. APPLICABILITY

3.1 The overall responsibility for proving safe and efficient air traffic service rests with the ATS Service Provider. The Service Provider is also responsible for compliance with the requirements of (insert applicable State regulation).

a. The ATS Service Provider should establish procedures and policies concerning issuance of 'Safety Alert / Warning' by air traffic controllers.

4. SAFETY ALERT

4.1 A safety alert (warning) is to be issued to pilots of aircraft being controlled by ATC if the controller is aware the aircraft is at an altitude which, in the controller's judgement, places the aircraft in unsafe proximity to terrain, obstructions or other aircraft. The provision of this service is contingent upon the capability of the controller to have an awareness of a situation involving unsafe proximity to terrain, obstructions and uncontrolled aircraft. The issuance of a safety alert cannot be mandated, but it can be expected on a reasonable, though intermittent basis. Once the alert is issued, it is solely the pilot's prerogative to determine what course of action, if any to take. This procedure is intended for use in time critical situations where aircraft safety is in question. Non critical situations should be handled via the normal traffic alert procedure.

5. ISSUANCE OF SAFETY ALERT BY AIR TRAFFIC CONTROLLERS

5.1 Issue a safety alert (warning) to an aircraft if you are aware the aircraft is in a position /altitude which, in your judgment, places it in unsafe proximity to terrain, obstructions, or other aircraft. Once the pilot informs you action is being taken to resolve the situation, you may discontinue the issuance of further alerts. Do not assume that because someone else has responsibility for the aircraft that the unsafe situation has been observed and the safety alert issued; inform the appropriate controller.

NOTE-

1. *The issuance of a safety alert (warning) is a first priority once the controller observes and recognizes a situation of unsafe aircraft proximity to terrain, obstacles, or other aircraft. Conditions, such as workload, traffic volume, the quality/limitations of the radar system, and the available lead time to react are factors in determining whether it is reasonable for the controller to observe and recognize such situations. While a controller cannot see immediately the development of every situation where a safety alert must be issued, the controller must remain vigilant for such situations and issue a safety alert (warning) when the situation is recognized..* .

2. *Recognition of situations of unsafe proximity may result from MSAW, automatic altitude readouts, Conflict / Mode C Alert, observations on a PAR scope, or pilot reports.*

3. *Once the alert (warning) is issued, it is solely the pilot's prerogative to determine what course of action, if any, will be taken.*

a. Low Altitude / <u>Terrain Alert (Warning).</u> Immediately issue/initiate an alert (warning) to an aircraft if you are aware the aircraft is at an altitude

which, in your judgment, places it in unsafe proximity to low altitude / terrain. Issue the alert (warning) as follows:

PHRASEOLOGY-
(aircraft callsign) LOW ALTITUDE WARNING,

CHECK YOUR ALTITUDE IMMEDIATELY QNH IS (number) [(units)]

[THE MINIMUM FLIGHT ALTITUDE IS (altitude)],

(aircraft callsign), TERRAIN ALERT (suggested pilot action if possible)

b. **Aircraft Conflict/Mode C Alert**. Immediately issue/initiate an alert to an aircraft if you are aware of another aircraft at an altitude which you believe places them in unsafe proximity. If feasible, offer the pilot an alternate course of action.

c. When an alternate course of action is given, end the transmission with the word "immediately."

PHRASEOLOGY-
TRAFFIC (number) O'CLOCK (distance) [Any other pertinent information] DO YOU WANT VECTORS? *TURN LEFT (or RIGHT) IMMEDIATELY HEADING (three digits), TO AVOID UNIDENTIFIED TRAFFIC (bearing by clock-reference and distance).*

and/or

CLIMB (or DESCEND) (specific altitude if appropriate) IMMEDIATELY.

6. MINIMUM SAFE ALTITUDE WARNING

a. When a MSAW alert is displayed, immediately analyze the situation and, if necessary, take the appropriate action to resolve the alert.

NOTE-

1. *Caution should be exercised when issuing a clearance to an aircraft in reaction to an MSAW alert to ensure that adjacent areas are not a factor.*

b. The controller may suppress the display of an MSAW alert from his/her control position with the application of one of the following suppress/inhibit computer functions:

1. The specific alert suppression message may be used to inhibit the MSAW alerting display on a single flight for a specific alert.

2. The indefinite alert suppression message shall be used exclusively to inhibit the display of MSAW alerts on aircraft known to be flying at an altitude that will activate the alert feature of one or more areas.

NOTE-

1. *The indefinite alert suppression message will remain in effect for the duration of the referenced flight's active status within the ACC unless modified by controller action.*

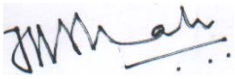
2. *The indefinite alert suppression message would typically apply to military flights with clearance to fly low-level type routes that routinely require altitudes below established minimum IFR altitudes.*

c. The computer entry of a message suppressing or inhibiting MSAW alerts constitutes acknowledgment for the alert and indicates that appropriate action has or will be taken to resolve the situation.

7. ACTION BY STATES

7.1 States / Service Providers that already have procedures in place may like to re-emphasize the need for controllers to issues Safety Alert (Warnings) when the circumstances so warrant.

7.2 States / Service Providers that do not have a procedure in place for issuance of a Safety Alert (Warning) may consider developing an appropriate procedure based on the information provided in this Advisory Bulletin.



Capt. Fareed Ali Shah
Programme Coordinator
COSCAP-SA