MANAGEMENT OF AIRCRAFT OPERATING TO AND FROM CLASS G AIRSPACE

1. Purpose

1.1 The purpose of this Safety Leaflet is to provide information on techniques that should be applied by air traffic controllers (ATC) to reduce the potential for unmanaged conflicts in Class G airspace.

1.2 **Nothing in this Safety Leaflet shall prevent pilots-in-command from exercising their best judgment and full authority in the choice of the best course of action to resolve a traffic conflict or avert a potential collision.**

2. Background

2.1 A large portion of the lower level airspace within the Kingdom of Saudi Arabia (KSA) is designated as Class G airspace. Within this airspace, an ATC separation service is not provided, and the primary means of traffic avoidance for aircraft operating in Class G airspace is self-separation, facilitated by 'alerted see and avoid' techniques using 'self-announce' radio calls.

2.2 Air Traffic Services (ATS) personnel have an obligation to provide a flight information service in Class G airspace, on-request, and as far as is practicable. This includes the passing of traffic information on 'known' traffic. However, due to limitations in surveillance and communications coverage it is not always possible or practical to provide such information. It is also possible that aircraft may pass out of the area of responsibility of a controller before traffic can be passed.

2.3 Through the last few months, a number of incidents have occurred in Class G airspace where aircraft have not been sufficiently aware of other proximate traffic and have been forced to respond to ACAS/TCAS alerts. A number of causal factors have been identified.

2.4 One of these is an apparent deficiency in application of 'alerted see and avoid' techniques by pilots, and in particular the correct use of broadcasts, interpretation of traffic information, and announcement of potential conflict. This is being addressed through an Aeronautical Information Circular.

2.5 Other factors, including the clear termination of control services, passing of traffic information and management of frequency transfer by ATS personnel, have been identified and are specifically addressed in this Safety Leaflet.

3. Area of Application

3.1 The techniques discussed in this circular are applicable in all Class G airspace within KSA.

4. Techniques for Managing Flights to and from Class G Airspace

Termination of Control Services

4.1 Pilots operating in controlled airspace have an expectation of control services, including radar services. **These services are not provided in Class G airspace and it is important that there is a clear and unambiguous alert or announcement to the pilot that the type of separation service is changing, and/or that responsibility for separation is being transferred from ATC to the pilot**.

4.2 This is achieved by clearly announcing that radar services are terminated (where the aircraft will continue in controlled airspace under procedural control) – or that control services are terminated. Examples of phraseology are shown below:

- (callsign) LEAVE CONTROLLED AIRSPACE DESCENDING (or ON DESCENT).
- (callsign) LEAVE CONTROL ZONE CLIMBING (or ON CLIMB)
- (callsign) RADAR SERVICE TERMINATED [DUE (reason)] (instructions)
- (callsign) CONTROL SERVICE TERMINATED [DUE (reason)] (instructions)

Traffic Information

4.3 **The pilots of aircraft operating in Class G airspace are solely responsible for separation of their aircraft from other aircraft, and from terrain.** The principle tool to achieve separation from other aircraft in Class G airspace is ‘alerted see and avoid’.

4.4 As part of the flight information service to aircraft in in Class G airspace, and to enhance the ‘alerted see and avoid’, controllers must pass traffic information about known traffic to aircraft about to leave controlled airspace and enter or operate in Class G airspace.

> ***Example:*** *“ABC123, leave control area descending. Radar services terminated. Traffic is (callsign) (type) taxiing at (location) expected departure in 5 minutes”*
> ***Example:*** *“ABC123, Cleared to (destination). Leave control zone climbing. Traffic is (callsign) arriving from the northeast, expected arrival at (time).*

4.5 Controllers should expect that in some cases pilots will request a delay in leaving controlled airspace until clear of the traffic. This may include a request to delay departure, or a request to delay descent.

Use of Direct Tracking in Class G Airspace

4.6 Offering direct tracking to aircraft is generally seen as a positive service in controlled airspace; however in Class G airspace it can confuse the application of self-separation by pilots. Controllers should consider the possible implications before offering direct tracking to aircraft in Class G airspace. As a matter of technique, aircraft should be maintained of flight planned routes.

> ***Example:*** *An aircraft is inbound to Aerodrome A on the 360 radial. An outbound aircraft is planned to depart on the 030 radial. After departing from Runway 27 the aircraft is instructed by the tower controller to track direct to the next waypoint (030/30NM). The aircraft are due to pass at 15 DME. If the outbound aircraft had set course by 5NM the two aircraft would be segregated. Instead, the two aircraft will pass at almost exactly the same point. Radio calls might not detect the conflict.*

Self-separation on ATC Frequency

4.7 In some cases a controller's Area of Responsibility (AOR) will extend beyond the Control Zone or Control Area. In most cases the extended AOR will be Class G airspace. Pilots will generally be retained on the control frequency until transferred to another control frequency whist transiting this Class G airspace. If traffic is passed about other possibly conflicting traffic, it is generally expected that the aircraft will self-separate on the Class G frequency. Controllers should expect, however, that a pilot will ask to use the ATC frequency for self-separation. ATC should facilitate this request if possible.

> ***Example:*** *Controller at Tower A passes traffic to an outbound aircraft about another aircraft inbound. Both are on the controller's frequency – but will pass in the Class G AOR. The outbound pilot acknowledges the traffic information from ATC – and asks if he can separate on this frequency. The ATC has no other traffic – so agrees. The two aircraft agree to level off 1000 feet apart until they have passed. 2 x 10 second transmissions – all clear.*

5. Complementary Information for Pilots

5.1 In parallel with this circular, an Aeronautical Information Circular (AIC) has been issued to all pilots. This Circular reinforces current requirements for operation in Class G airspace, and sets out some techniques for improving situational awareness.

6. Authorization

Name/Position	Signature	Date
Capt M Jamjoom Vice President Safety and Economic Regulation General Authority for Civil Aviation	*Original signed*	*11 March 2013*