

# ATSOCAS

## Air Traffic Services Outside Controlled Airspace

**New Services to become effective on 19<sup>th</sup> March 2009**

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
<b>General</b>	<p>Intended to offer the pilot maximum autonomy and the avoidance of other traffic is solely the pilot's responsibility.</p> <p>(A bit like the old FIS without any traffic information)</p>	<p>A Traffic Service provides the pilot with surveillance derived traffic information on conflicting aircraft. No deconfliction advice is passed and the pilot is responsible for collision avoidance.</p> <p>(Similar to the old RIS)</p>	<p>A Deconfliction Service provides the pilot with traffic information and deconfliction advice on conflicting aircraft. However, the avoidance of other aircraft is ultimately the pilot's responsibility.</p> <p>(Similar to the old RAS)</p>	<p>A Procedural Service is a non surveillance service in which instructions are provided which, if complied with, will achieve deconfliction minima against other aircraft in receipt of a Procedural Service from the same controller. The avoidance of other aircraft is the pilot's responsibility.</p> <p>(No comparison to old services)</p>
<b>Definition</b>	<p>The controller/FISO will pass information pertinent to the safe and efficient conduct of flight. This can include weather, changes of serviceability of facilities, conditions at aerodromes and general activity information within a unit's area of responsibility.</p>	<p>A Traffic Service contains the information available in a Basic Service.</p> <p>In addition, controllers provide surveillance derived traffic information on relevant conflicting traffic. Headings and/or levels, may also be issued for positioning and/or sequencing.</p>	<p>A Deconfliction Service contains the information available in a Basic Service. In addition, controllers shall aim to assist the pilot with his responsibility for the safety of the aircraft by passing traffic information and deconfliction advice. Headings and/or levels, will also be issued for positioning, sequencing and/or deconfliction advice.</p>	<p>A Procedural Service contains the information available in a Basic Service. In addition, controllers shall aim to assist the pilot with his responsibility for the safety of the aircraft by providing vertical, lateral, longitudinal, and time instruction, aimed at achieving deconfliction minima from other aircraft that the controller is also providing a Procedural Service to traffic information or deconfliction advice can be passed against aircraft which the controller is not in communication with; therefore, pilots should be aware of the potential to encounter conflicting aircraft without warning being passed by ATC.</p>

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
				Pilots flying in the vicinity of aerodromes, ATS routes, or navigational aids where it is known that a Procedural Service is provided, are strongly encouraged to attempt to establish two-way communication with the relevant ATC unit.
<b>Provision</b>	A Basic Service can be provided by controllers and FISOs and it is not necessary to have an ATS surveillance system to provide the service.	A Traffic Service may only be provided by a controller using an ATS surveillance system.	A Deconfliction Service shall only be provided by a controller using an ATS surveillance system.	A Procedural Service shall only be provided by controllers at ATC units with Regulatory approval to provide the service.  Controllers at ATC units without surveillance systems available may routinely apply Procedural Service to aircraft conducting IFR arrival or departure procedures, without the need to elicit the pilot's requirements.
<b>Flight Rules and Meteorological Conditions</b>	Available under any flight rules or meteorological conditions. However, a Basic Service is not appropriate for flight in IMC when other services are available.	A Traffic Service is available under any flight rules or meteorological conditions. However, a Traffic Service might not be appropriate for flight in IMC when other services are available.	A Deconfliction Service is available under any flight rules or meteorological conditions. Controllers will expect the pilot to accept headings and/or levels, that may require flight in IMC. Pilots that do not require deconfliction advice or deconfliction minima to be applied should not request a Deconfliction Service.	A Procedural Service is available under any flight rules or meteorological conditions. Controllers will expect the pilot to accept radial, track, level and time allocations that may require flight in IMC. Pilots that do not require deconfliction advice should not request a Procedural Service.  Under a Procedural Service, high reliance is placed on the pilot's ability to follow radial, track and time allocations; therefore in high controller workload and/or where airspace availability is limited, controllers may not be able to provide a Procedural Service to a pilot who is flying purely by visual references.
<b>Identification</b>	Controllers may positively identify an aircraft, which may require the allocation of a transponder code. However, this does not imply that an increased level of service is being provided.	Aircraft must be identified for a Traffic Service to be provided. In order to identify an aircraft, a controller may need to issue transponder code allocations or turn instructions to the pilot. If track identity is lost the pilot will be informed and the	Aircraft must be identified for a Deconfliction Service to be provided. In order to identify an aircraft, a controller may need to issue instructions such as transponder code allocations or turns. If track identity is lost the pilot will be	Aircraft do not need to be identified, however, controllers may allocate an SSR code to improve the awareness of other controllers at ATC units with surveillance systems. Pilots should not assume that a surveillance service is being provided when

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
		controller will attempt to re-establish identity as soon as practicable.	informed and the controller will attempt to re-establish identity as soon as practicable.	such a SSR code is issued.
<b>Traffic Information</b>	<p>Pilots should not expect any traffic information from a controller/FISO, as they are under no obligation to do so outside an ATZ and, due to higher priority given to other tasks, might not monitor traffic receiving a Basic Service for significant periods. The pilot remains responsible for collision avoidance; consequently, pilots must maintain an adequate lookout at all times to avoid other airspace users. A pilot who considers that he requires specific traffic information should request a Traffic Service.</p> <p>Controllers/FISOs may decide to pass general information to assist with the pilot's situational awareness, such as an active gliding site close to the route; however this will not normally be updated unless requested by the pilot.</p> <p>Controllers/FISOs with positive information indicating that a definite risk of collision exists may pass an appropriate warning to the pilot.</p>	<p>Controllers shall pass surveillance derived traffic information on conflicting traffic that they anticipate will pass within 3 NM and 3000 ft - deconfliction advice will not be passed. However, controllers may use their judgement to decide when such traffic is not relevant eg passing behind or diverging, and the timelines of traffic information will be affected by controller workload. Controllers shall update the traffic information if it continues to constitute a definite hazard or if requested by the pilot.</p>	<p>Controllers may pass traffic information on participating and co-ordinated deconflicted traffic that are considered to be of relevance to the pilot.</p>	<p>The controller will pass traffic information on those aircraft to which he is providing a Basic Service, and any other flights which he has been informed about by another ATS unit, that he considers to be in confliction. In order to improve the pilot's situational awareness, the controller may also, subject to workload, provide traffic information on other traffic to which he is providing a Procedural Service. The pilot remains responsible for collision avoidance at all times.</p> <p>The controller has no ability to provide traffic information on autonomous aircraft.</p>
<b>Deconfliction</b>	<p>Pilots are responsible for collision avoidance at all times.</p>	<p>Pilots are responsible for collision avoidance at all times whether traffic information is passed or not. A controller will not offer deconfliction advice to a pilot in receipt of a Traffic Service. If a pilot requires deconfliction advice then he shall request a Deconfliction Service.</p> <p>When providing headings for positioning, sequencing or navigational assistance, the controller should take into account traffic in the immediate vicinity, so that a risk of</p>	<p>Controllers shall provide traffic information on conflicting traffic, and advice necessary to achieving a planned deconfliction minima. However, high controller workload and/or RTF loading, and unpredictable manoeuvres by autonomous aircraft, mean that deconfliction minima may not always be achieved.</p> <p>The pilot may decide not to act on the controller's advice, in which case he must</p>	<p>Controllers shall provide deconfliction instructions by allocating levels, radials, tracks, and time restrictions, or use pilot position reports, aimed at achieving a planned deconfliction minima from other aircraft receiving a Procedural Service.</p> <p>The deconfliction minima are:</p> <ul style="list-style-type: none"> <li>• 1000ft vertically; or</li> <li>• 500ft vertically where levels are allocated in accordance with the quadrantal rule (or otherwise</li> </ul>

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
		collision is not knowingly introduced by the heading issued.	<p>inform the controller and accepts responsibility for any deconfliction actions that may be required. Controllers are not prevented from passing further information in relation to the conflicting traffic if in their opinion it continues to constitute a definite hazard.</p> <p>Occasionally, other aircraft may make sudden changes to their profile, bringing it into confliction with an aircraft in receipt of a Deconfliction Service. Additionally, traffic may be detected late for a variety of reasons. In these circumstances, when a more urgent change to heading or level is required of the aircraft in receipt of a Deconfliction Service, the controller shall issue a heading and/or level instruction before information on the traffic.</p>	<p>when subject to regulatory approval); or</p> <ul style="list-style-type: none"> <li>Those lateral and longitudinal criteria listed in CAP493 as lateral and longitudinal separation standards.</li> <li>Deconfliction advice cannot be provided against unknown aircraft, and high controller workload and/or RTF loading mean that deconfliction minima may not always be achieved.</li> </ul> <p>Pilots may encounter conflicting aircraft about which neither traffic information nor deconfliction advice have been provided. The adequacy of ATC deconfliction advice relies on compliance by pilots, and as this is a non-surveillance service, controllers are unable to recognise when pilot position reports are inaccurate or incorrect.</p>
<b>Terrain</b>	Pilots are responsible for terrain clearance at all times. Basic Service may be provided by controllers/FISOs at any level.	Traffic Service is available at all levels, subject to the limits of the surveillance system in use by the ATC unit. Consequently, the service may be provided below ATC terrain safe levels, and pilots are responsible for terrain and obstacle clearance at all times. Pilots intending to descend below ATC terrain safe levels will be issued with a terrain reminder by the controller.	<p>A Deconfliction Service is only to be provided to aircraft operating at or above the ATC unit's terrain safe level, unless it is on departure from an aerodrome climbing to the ATC unit's terrain safe level, or it is following notified instrument approach procedures.</p> <p>Instrument approach procedures are designed to be terrain safe in accordance with their specific design criteria. However, descent on notified instrument approach procedures and in the initial stages of departure from a runway will require flight below the more general ATC unit terrain safe level for the wider area.</p>	<p>A Procedural Service is available at all levels and the pilot remains responsible for terrain clearance.</p> <p>Controllers will routinely remind pilots wishing to operate below ATC unit terrain safe levels of their responsibilities and the relevant terrain safe level.</p>

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
			<p>If a controller detects a confliction in these stages of flight, traffic information without deconfliction advice is to be passed. If the pilot requests deconfliction advice or the controller considers that a definite risk of collision exists, deconfliction advice shall be passed. In such situations, deconfliction advice will be aimed at ensuring that a collision does not occur, rather than to achieve planned deconfliction minima .</p> <p>For aircraft on departure, controllers will provide avoiding action advice and a terrain warning as follows:</p> <ul style="list-style-type: none"> <li>• Callsign, avoiding action with terrain alert, turn left immediately heading 180 degrees, traffic 12 o'clock, 5 miles reciprocal heading indicating 2000 ft</li> </ul> <p>For aircraft conducting pilot interpreted instrument approaches such as ILS, VOR, NDB etc, controllers will provide avoiding action advice with a terrain safe level to climb to or fly at. This would normally result in repositioning being needed.</p> <p>For aircraft being provided with Ground Controlled and Surveillance Radar Approaches:</p> <ul style="list-style-type: none"> <li>• If the terrain safe area for the procedure is known to the controller or indicated on the surveillance display, avoiding action may be passed without a terrain safe level to climb to or fly at, as long as the controller</li> </ul>	

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
			<p>ensures that the aircraft remains within the terrain safe area.</p> <ul style="list-style-type: none"> <li>If the controller anticipates that the avoiding action turn will result in flight outside the terrain safe area or the approach not being able to be completed, a terrain safe level to climb to or fly at will also be provided, and repositioning will normally be required.</li> </ul> <p>Other than when flying notified instrument approaches, if pilots request descent below the ATC unit terrain safe level, controllers shall not provide a Deconfliction Service but may provide a Traffic Service.</p>	
<b>Arrangements</b>	Agreements can be established between a controller and a pilot to restrict an aircraft to a specific level, level band, heading, route, or operating area.	Arrangements can be established between a controller and a pilot to restrict an aircraft to a specific level, level band, heading, route, or operating area.	Arrangements can be established between a controller and a pilot to restrict an aircraft to a specific level, level band, heading, route, or operating area.	Arrangements can be established between a controller and a pilot to restrict an aircraft to a specific level, level band, heading, route, or operating area.
<b>Headings</b>	<p>Pilots may change heading or route without advising the controller/FISO, unless the pilot has entered into an agreement with a controller to maintain a specific course of action.</p> <p>A controller shall not issue specific headings, unless for the purposes of identification.</p>	<p>A pilot may operate under his own navigation or a controller may provide headings for positioning, sequencing or navigational assistance. A pilot shall not change general route manoeuvring area, or controller allocated heading without first advising and obtaining a response from the controller, as the flight profile may have been co-ordinated against other airspace users without recourse to the pilot.</p> <p>Controllers will only allocate headings when the aircraft is at or above an ATC unit's terrain safe levels, unless the pilot requests such a heading and the controller reminds the pilot that he remains</p>	<p>Pilots shall not change heading or level without first advising and obtaining a response from the controller, unless safety is likely to be compromised.</p> <p>When a heading or level instruction is provided with the aim of achieving planned deconfliction minima the controller will expect the pilot to comply unless the pilot advises otherwise.</p> <p>If a heading or level allocation is unacceptable to the pilot, the controller shall immediately be informed.</p>	<p>Controllers will provide specific radials, tracks, or time restrictions.</p> <p>If a radial, track, or time allocation is unacceptable to the pilot, the controller shall immediately be informed, and pilots shall not change radial, track, or time allocation without first advising and obtaining a response from the controller, unless safety is likely to be compromised.</p> <p>Controllers may utilise geographical or airspace reporting points in order to determine and provide lateral deconfliction between flights. Consequently, pilots shall, to the best of their ability, ensure that requested or</p>

	Basic Service	Traffic Service	De-confliction Service	Procedural Service
		responsible for terrain clearance.		required position reports are accurate.
<b>Levels</b>	<p>Pilots may change level without advising the controller/FISO, unless the pilot has entered into an agreement with a controller to maintain a specific level or level band.</p>	<p>Pilots may select their own operating levels, or the controller may provide levels for positioning, sequencing or navigational assistance. An aircraft's flight profile may be co-ordinated against other airspace users without recourse to the pilot.</p> <p>Therefore, in all cases, unless safety is likely to be compromised, a pilot shall not change level, or level band without first advising and obtaining a response from the controller.</p> <p>Levels allocated by controllers will be terrain safe in accordance with the ATC unit's terrain safe levels, unless prior agreement has been obtained from the pilot, or the levels form part of VFR clearances for aerodrome arrival or to enter controlled airspace that by necessity require flight below the unit terrain safe levels; in such circumstances, the instruction shall be accompanied by a reminder that the pilot remains responsible for terrain clearance.</p>	<p>Pilots shall not change heading or level without first advising and obtaining a response from the controller, unless safety is likely to be compromised.</p> <p>When a heading or level instruction is provided with the aim of achieving planned deconfliction minima the controller will expect the pilot to comply unless the pilot advises otherwise.</p> <p>If a heading or level allocation is unacceptable to the pilot, the controller shall immediately be informed.</p>	<p>Pilots may select their own levels or may be provided with level allocations by the controller for positioning, sequencing, navigational assistance, or to achieve deconfliction minima. If a level is unacceptable to the pilot he shall advise the controller immediately. Unless safety is likely to be compromised, a pilot shall not change level without first obtaining approval from the controller, as an aircraft's flight profile may be coordinated, against other airspace users without recourse to the pilot.</p>