

While traditional Secondary Surveillance Radar (SSR) stations interrogate all aircraft within their range, Mode S establishes selective and addressed interrogations with aircraft within its coverage. Such selective interrogation improves the quality and integrity of the detection, identification and altitude reporting.

These improvements translate into benefits in terms of safety, capacity and efficiency benefits which are key to supporting the future of the high-traffic density airspace. This first step of selective interrogation is known as Mode S Elementary Surveillance.

Mode S Enhanced Surveillance builds upon the concept of Elementary Surveillance and consists of the extraction of further aircraft parameters known as Downlink Airborne Parameters (DAPs). This facilitates an increase in the safety and efficiency of the ATM operations.