European Aviation Safety Agency

RMT.0464 'Requirements for air traffic services'

ICAO ANNEX 11 CHECKLIST
based on
ICAO ANNEX 11
Fourthteenth Edition — July 2016
aligned with
Amendment No 50-A and 50-B
of 22.02.2016

The present document is published as information material associated with EASA Opinion No 03/2018.

It includes a comparison between the SARPs of ICAO Annex 11 'Air Traffic Services' and their proposed transposition into the EU regulatory framework as in EASA Opinion No 03/2018. It also indicates when a difference between the original ICAO SARPs and the proposed transposition into EU ATS requirements exists.

The Checklist includes the provisions introduced with Amendment 50-B which will be applicable as of November 2020.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements

	ORIGINAL ICAO PROVISION	**DIFFERENCES BETWEEN ICAO STANDARDS AND PROPOSED TRANSPOSITION**	**PROPOSED TRANSPOSITION**
	CHAPTER 1. DEFINITIONS *Note 1.— Throughout the text of this document the term "service" is used as an abstract noun to designate functions, or service rendered; the term "unit" is used to designate a collective body performing a service.*		Not proposed for transposition with Part-ATS.
	Note 2.— The designation (RR) in these definitions indicates a definition which has been extracted from the Radio Regulations of the International Telecommunication Union (ITU) (see Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including statement of approved ICAO policies (*Doc 9718)).*		Not proposed for transposition with Part-ATS.
	When the following terms are used in the Standards and Recommended Practices for Air Traffic Services, they have the following meanings: ----------		Not proposed for transposition with Part-ATS.
	Accepting unit. Air traffic control unit next to take control of an aircraft.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Accepting unit' means ATC unit next to take control of an aircraft.**
	Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft		Not proposed for transposition with Part-ATS.

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	is ready to move with the purpose of flight until such time it comes to rest at the end of the flight and the primary propulsion system is shut down, in which: a) a person is fatally or seriously injured as a result of: — being in the aircraft, or — direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or — direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or b) the aircraft sustains damage or structural failure which: — adversely affects the structural strength, performance or flight characteristics of the aircraft, and — would normally require major repair or replacement of the affected component, *except* for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or		

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	c) the aircraft is missing or is completely inaccessible.		
	Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.		Not proposed for transposition with Part-ATS.
	Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.		Not proposed for transposition with Part-ATS.
	Note 3.— The type of unmanned aircraft system to be investigated is addressed in Annex 13, 5.1.		Not proposed for transposition with Part-ATS.
	Note 4.— Guidance for the determination of aircraft damage can be found in Annex 13, Attachment E.		Not proposed for transposition with Part-ATS.
	Accuracy. A degree of conformance between the estimated or measured value and the true value.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'accuracy' means a degree of conformance between the estimated or measured value and the true value.** It is transposed also as SERA Article 2(1).
	Note.— For measured positional data the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS' as part of the definition of 'accuracy', as follows: **For measured positional data, the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.**
	ADS-C agreement. A reporting plan which establishes the conditions of ADS-C data reporting (i.e. data required by the air traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'ADS-C agreement' means a reporting plan which establishes the conditions of ADS-C data reporting (i.e. data required by the air**

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	C in the provision of air traffic services).		**traffic services unit and frequency of ADS-C reports which have to be agreed to prior to using ADS-C in the provision of air traffic services);**
	Note.— The terms of the agreement will be exchanged between the ground system and the aircraft by means of a contract, or a series of contracts.		Not proposed for transposition with Part-ATS.
	Advisory airspace. An airspace of defined dimensions, or designated route, within which air traffic advisory service is available.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'advisory airspace' means an airspace of defined dimensions, or designated route, within which air traffic advisory service is available.** It is transposed also as SERA Article 2(3).
	Advisory route. A designated route along which air traffic advisory service is available.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'advisory route' means a designated route along which air traffic advisory service is available.** It is transposed also as SERA Article 2(4).
	Aerodrome. A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.		Not proposed for transposition. The EU definition of aerodrome, established by Regulation (EC) No 216/2008, its implementing rules, as well as Regulation (EU) No 923/2012 Article 2(6), is as follows, and derogates from the definition provided in Annex 11: **'aerodrome' shall mean a defined area (including any buildings, installations and equipment) on land or water or on a fixed, fixed offshore or floating structure intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.**

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	Aerodrome control service. Air traffic control service for aerodrome traffic.		Not proposed for transposition; exhaustive definition and explanation of ATC service is provided within Part-ATS requirements.
	Aerodrome control tower. A unit established to provide air traffic control service to aerodrome traffic.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'aerodrome control tower' means a unit established to provide air traffic control service to aerodrome traffic.** It is transposed also as SERA Article 2(8).
	Aerodrome traffic. All traffic on the maneuvering area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'aerodrome traffic' means all traffic on the manoeuvering area of an aerodrome and all aircraft flying in the vicinity of an aerodrome. An aircraft operating in the vicinity of an aerodrome includes but is not limited to aircraft entering or leaving an aerodrome traffic circuit.** It is transposed also as SERA Article 2(9).
	Note.— An aircraft is in the vicinity of an aerodrome when it is in, entering or leaving an aerodrome traffic circuit.		Note proposed for transposition within Annex I 'Part-DEFINITIONS' as part of the definition of 'aerodrome traffic'.
	Aeronautical fixed service (AFS). A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'.
	Aeronautical Information Publication (AIP). A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	Aeronautical mobile service (RR S1.32). A		Definition proposed for transposition within

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	mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies.		Annex I 'Part-DEFINITIONS', as follows: **'aeronautical mobile service' means a mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate; emergency position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies.** It is transposed also as SERA Article 2(14).
	Aeronautical telecommunication station. A station in the aeronautical telecommunication service.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Aeronautical telecommunication station' means a station in the aeronautical telecommunication service.**
	Airborne collision avoidance system (ACAS). An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: '**airborne collision avoidance system (ACAS)' means an aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders.'** It is transposed also as SERA Article 2(17).
	Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(18).
	Air-ground communication. Two-way communication between aircraft and stations or locations on the surface of the earth.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'air-ground communication' means two-way communication between aircraft and stations**

			or locations on the surface of the earth. It is transposed also as SERA Article 2(22).
	AIRMET information. Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS', by referring to 'AIRMET message'. It is transposed as 'AIRMET information as SERA Article 2(21).
	Air-taxiing. Movement of a helicopter/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kts).		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'air-taxiing' means movement of a helicopter/ vertical take-off and landing (VTOL) above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37 km/h (20 kt). The actual height may vary, and some helicopters may require air-taxiing above 8 m (25 ft) above ground level (AGL) to reduce ground effect turbulence or provide clearance for cargo slingloads.** It is transposed also as SERA Article 2(25).
	Note - The actual height may vary, and some helicopters may require air-taxiing above 8 m (25 ft) AGL to reduce ground effect turbulence or provide clearance for cargo slingloads.		Note proposed for transposition within GM1 to Annex IV 'Part-ATS', as part of the definition of 'air-taxiing'.
	Air traffic. All aircraft in flight or operating on the manoeuvring area of an aerodrome.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'air traffic' means all aircraft in flight or operating on the manoeuvring area of an aerodrome.**

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			It is transposed also as SERA Article 2(26).
	Air traffic advisory service. A service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'air traffic advisory service' means a service provided within advisory airspace to ensure separation, in so far as practical, between aircraft which are operating on IFR flight plans.** It is transposed also as SERA Article 2(27).
	Air traffic control clearance. Authorization for an aircraft to proceed under conditions specified by an air traffic control unit.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'air traffic control (ATC) clearance' means authorisation for an aircraft to proceed under conditions specified by an air traffic control unit.** It is transposed also as SERA Article 2(28).
	Note 1.— For convenience, the term "air traffic control clearance" is frequently abbreviated to "clearance" when used in appropriate contexts.		Note proposed transposition as GM1 to the definition of 'ATC clearance' is as follows: **For convenience, the term 'air traffic control clearance' is frequently abbreviated to 'clearance' when used in appropriate contexts.**
	Note 2.— The abbreviated term "clearance" may be prefixed by the words "taxi", "take-off", "departure", "en route", "approach" or "landing" to indicate the particular portion of flight to which the air traffic control clearance relates.		Note proposed transposition as GM1 to the definition of 'ATC clearance' is as follows: **The abbreviated term 'clearance' may be prefixed by the words 'taxi', 'take-off', 'departure', 'en route', 'approach' or 'landing' to indicate the particular portion of flight to which the air traffic control clearance relates.**
	Air traffic control service. A service provided for the purpose of: a) preventing collisions:		Not proposed for transposition; exhaustive definition and explanation of ATC service is provided within Part-ATS requirements.

	1) between aircraft, and 2) on the manoeuvring area between aircraft and obstructions; and b) expediting and maintaining an orderly flow of air traffic.		
	Air traffic control unit. A generic term meaning variously, area control centre, approach control unit or aerodrome control tower.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'air traffic control (ATC) unit' means a generic term meaning variously, area control centre, approach control unit or aerodrome control tower.** It is transposed also as SERA Article 2(31).
	Air traffic controller schedule. A plan for allocating air traffic controller duty periods and non-duty periods over a period of time, otherwise referred to as a roster.		Not proposed for transposition with Part-ATS. Annex I 'Part-DEFINITIONS' include a similar definition for 'rostering system'.
	Air traffic flow management (ATFM). A service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilized to the maximum extent possible and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority.		Not proposed for transposition with Part-ATS.
	Air traffic service. A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).		Not proposed for transposition; exhaustive definition and explanation of ATS is provided within Part-ATS requirements.
	Air traffic services airspaces. Airspaces of defined dimensions, alphabetically designated, within which specific types of flights may operate and for which air traffic services and rules of operation are specified.		Not proposed for transposition with Part-ATS.

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	Note.— ATS airspaces are classified as Class A to G as described in 2.6.		Not proposed for transposition with Part-ATS.
	Air traffic services reporting office. A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.		Definition transposed as ATS.TR.110(b), as follows: **(b) Air traffic services reporting office(s) or other arrangements shall be established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.**
	Note.— An air traffic services reporting office may be established as a separate unit or combined with an existing unit, such as another air traffic services unit, or a unit of the aeronautical information service.		Not proposed for transposition with Part-ATS. The concept in the Note is further elaborated in GM1 ATS.TR.110(b).
	Air traffic services unit. A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'.
	Airway. A control area or portion thereof established in the form of a corridor.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'airway' means a control area or portion thereof established in the form of a corridor.** It is transposed also as SERA Article 2(36).
	ALERFA. The code word used to designate an alert phase.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'ALERFA' is the code word used to designate an alert phase.**
	Alerting service. A service provided to notify appropriate organizations regarding aircraft in		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows:

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	need of search and rescue aid, and assist such organizations as required.		**'Alerting service' means a service provided to notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required.** It is transposed also as SERA Article 2(37).
	Alert phase. A situation wherein apprehension exists as to the safety of an aircraft and its occupants.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'alert phase' means a situation wherein apprehension exists as to the safety of an aircraft and its occupants.**
	Alternate aerodrome. An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing where the necessary services and facilities are available, where aircraft performance requirements can be met and which is operational at the expected time of use. Alternate aerodromes include the following:		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(38).
	Take-off alternate. An alternate aerodrome at which an aircraft would be able to land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(38).
	En-route alternate. An alternate aerodrome at which an aircraft would be able to land in the event that a diversion becomes necessary while en route.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(38).
	Destination alternate. An alternate aerodrome at which an aircraft would be able to land should it become either impossible or inadvisable to land at the aerodrome of intended landing.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(38).
	Note.— The aerodrome from which a flight departs may		Not proposed for transposition with Part-ATS.

	also be an en-route or a destination alternate aerodrome for that flight.		
	Altitude. The vertical distance of a level, a point or an object considered as a point, measured from mean sea level.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(39).
	Approach control service. Air traffic control service for arriving or departing controlled flights.		Not proposed for transposition; exhaustive definition and explanation of ATC services is provided within Part-ATS requirements.
	Approach control unit. A unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'approach control unit' means a unit established to provide air traffic control service to controlled flights arriving at, or departing from, one or more aerodromes.** It is transposed also as SERA Article 2(41).
	Appropriate ATS authority. The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.		Not proposed for transposition as not applicable to the EU context, which allocates responsibilities for action, variously, to Members States, competent authorities, or ATS providers.
	Apron. A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.		Not proposed for transposition as it is already included in Regulation (EC) No 216/2008.
	Apron management service. A service provided to regulate the activities and the movement of aircraft and vehicles on an apron.		Definition not proposed for transposition as it is already included in Regulation (EC) No 216/2008.
	Area control centre. A unit established to provide air traffic control service to controlled flights in control areas under its jurisdiction.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'.
	Area control service. Air traffic control service for controlled flights in control areas.		Not proposed for transposition; exhaustive definition and explanation of ATC services is provided within Part-ATS requirements.
	Area navigation (RNAV). A method of		Not proposed for transposition as it is already

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	navigation which permits aircraft operation on any desired flight path within the coverage of ground- or space-based navigation aids or within the limits of the capability of self-contained aids, or a combination of these.		included in Annex I 'Part-DEFINITIONS'.
	Note.— Area navigation includes performance-based navigation as well as other operations that do not meet the definition of performance-based navigation.		Not proposed for transposition with Part-ATS.
	Area navigation route. An ATS route established for the use of aircraft capable of employing area navigation.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	ATS route. A specified route designed for channelling the flow of traffic as necessary for the provision of air traffic services.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	Note 1.— The term "ATS route" is used to mean variously, airway, advisory route, controlled or uncontrolled route, arrival or departure route, etc.		Note proposed for transposition as GM associated to the definition of 'ATS route' within Annex I 'Part-DEFINITIONS', with Opinion 02/2018.
	Note 2.— An ATS route is defined by route specifications which include an ATS route designator, the track to or from significant points (waypoints), distance between significant points, reporting requirements and, as determined by the appropriate ATS authority, the lowest safe altitude.		Note proposed for transposition as GM associated to the definition of 'ATS route' within Annex I 'Part-DEFINITIONS', with Opinion 02/2018.
	Automatic dependent surveillance – broadcast (ADS-B). A means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'automatic dependent surveillance — broadcast (ADS-B)' means a means by which aircraft, aerodrome vehicles and other objects can automatically transmit and/or receive data such as identification, position and additional data, as appropriate, in a broadcast mode via a data link.** It is transposed also as SERA Article 2(47).

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	Automatic dependent surveillance – contract (ADS-C). A means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'automatic dependent surveillance — contract (ADS-C)' means a means by which the terms of an ADS-C agreement will be exchanged between the ground system and the aircraft, via a data link, specifying under what conditions ADS-C reports would be initiated, and what data would be contained in the reports.** It is transposed also as SERA Article 2(48a).
	Note.— The abbreviated term "ADS contract" is commonly used to refer to ADS event contract, ADS demand contract, ADS periodic contract or an emergency mode.		Note proposed for transposition as GM1 to the definition of 'ADS-C', as follows: **The abbreviated term 'ADS contract' is commonly used to refer to 'ADS event contract', 'ADS demand contract', 'ADS periodic contract' or an emergency mode.**
	Automatic terminal information service (ATIS). The automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof: a) Data link-automatic terminal information service (D-ATIS). The provision of ATIS via data link. b) Voice-automatic terminal information service (Voice-ATIS). The provision of ATIS by means of continuous and repetitive voice broadcasts.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'automatic terminal information service (ATIS)' means the automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion thereof:** **(a) 'data link-automatic terminal information service (D-ATIS)' means the provision of ATIS via data link;** **(b) 'voice-automatic terminal information service (Voice- ATIS)' means the provision of ATIS by means of continuous and repetitive voice broadcasts.** It is transposed also as SERA Article 2(49).

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	Base turn. A turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Base turn' means a turn executed by the aircraft during the initial approach between the end of the outbound track and the beginning of the intermediate or final approach track. The tracks are not reciprocal.**
	Note.— Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure.		Note proposed for transposition as GM1 to the definition of 'base turn', as follows: **'Base turns may be designated as being made either in level flight or while descending, according to the circumstances of each individual procedure'.**
	Calendar. Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108*).		Not proposed for transposition with Part-ATS.
	Change-over point. The point at which an aircraft navigating on an ATS route segment defined by reference to very high frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'change-over point' means the point at which an aircraft navigating on an ATS route segment defined by reference to very high-frequency omnidirectional radio ranges is expected to transfer its primary navigational reference from the facility behind the aircraft to the next facility ahead of the aircraft.** It is transposed also as SERA Article 2(51).
	Note.— Change-over points are established to provide the optimum balance in respect of signal strength and quality between facilities at all levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.		Note proposed for transposition within GM1 to Annex IV 'Part-ATS', as part of the definition of 'change-over point', as follows: **Change-over points are established to provide the optimum balance in respect of signal strength and quality between facilities at all**

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			levels to be used and to ensure a common source of azimuth guidance for all aircraft operating along the same portion of a route segment.
	Clearance limit. The point to which an aircraft is granted an air traffic control clearance.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'clearance limit' means the point to which an aircraft is granted an ATC clearance.** It is transposed also as SERA Article 2(52).
	Conference communications. Communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Conference communications' means communication facilities whereby direct speech conversation may be conducted between three or more locations simultaneously.**
	Control area. A controlled airspace extending upwards from a specified limit above the earth.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Controlled aerodrome. An aerodrome at which air traffic control service is provided to aerodrome traffic.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'controlled aerodrome' means an aerodrome at which air traffic control service is provided to aerodrome traffic within the controlled airspace associated with such aerodrome.** With Part-ATS, the corresponding definition in SERA Article 2(57) is proposed for amendment accordingly.
	Note.— The term "controlled aerodrome" indicates that air traffic control service is provided to aerodrome traffic but does not necessarily imply that a control zone exists.		Not proposed for transposition with Part-ATS.

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	Controlled airspace. An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: '**controlled airspace' means an airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification.** It is transposed also as SERA Article 2(58).
	Note.— Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D and E as described in 2.6.		Not proposed for transposition with Part-ATS.
	Controlled flight. Any flight which is subject to an air traffic control clearance.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'controlled flight' means any flight which is subject to an ATC clearance.** It is transposed also as SERA Article 2(59).
	Controller-pilot data link communications (CPDLC). A means of communication between controller and pilot, using data link for ATC communications.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'controller-pilot data link communications (CPDLC)' mean a means of communication between controller and pilot, using data link for ATC communications.** It is transposed also as SERA Article 2(60).
	Control zone. A controlled airspace extending upwards from the surface of the earth to a specified upper limit.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'control zone' means a controlled airspace extending upwards from the surface of the earth to a specified upper limit;** It is transposed also as SERA Article 2(61).
	Cruising level. A level maintained during a significant portion of a flight.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'cruising level' means a level maintained during a significant portion of a flight.** It is transposed also as SERA Article 2(63).

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	Cyclic redundancy check (CRC). A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.		Not proposed for transposition with Part-ATS.
	Danger area. An airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018. It is transposed also as SERA Article 2(65).
	Data link communications. A form of communication intended for the exchange of messages via a data link.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'data link communications' means a form of communication intended for the exchange of messages via a data link.** It is transposed also as SERA Article 2(66).
	Data quality. A degree or level of confidence that the data provided meets the requirements of the data user in terms of accuracy, resolution and integrity.		Not proposed for transposition with Part-ATS.
	Datum. Any quantity or set of quantities that may serve as a reference or basis for the calculation of other quantities (ISO19104*)		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	Declared capacity. A measure of the ability of the ATC system or any of its subsystems or operating positions to provide service to aircraft during normal activities. It is expressed as the number of aircraft entering a specified portion of airspace in a given period of time, taking due account of weather, ATC unit configuration, staff and equipment available, and any other factors that may affect the workload of the controller responsible for the airspace.		Not proposed for transposition with Part-ATS.
	DETRESFA. The code word used to designate a distress phase.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows:

			'DETRESFA' is the code word used to designate a distress phase.
	Distress phase. A situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Distress phase' means a situation wherein there is reasonable certainty that an aircraft and its occupants are threatened by grave and imminent danger or require immediate assistance.**
	Downstream clearance. A clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'downstream clearance' means a clearance issued to an aircraft by an air traffic control unit that is not the current controlling authority of that aircraft.** It is transposed also as SERA Article 2(68).
	Duty. Any task that an air traffic controller is required by the air traffic services provider to perform. These tasks include those performed during time-in-position, administrative work and training.		Not proposed for transposition with Part-ATS. Annex I 'Part-DEFINITIONS' includes an almost identical definition for 'duty'.
	Duty period. A period which starts when an air traffic controller is required by an air traffic services provider to report for or to commence a duty and ends when that person is free from all duties.		Not proposed for transposition with Part-ATS. Annex I 'Part-DEFINITIONS' includes an identical definition for 'duty'.
	Emergency phase. A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Emergency phase' means a generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.**
	Fatigue. A physiological state of reduced mental		Not proposed for transposition with Part-ATS.

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	or physical performance capability resulting from sleep loss, extended wakefulness, circadian phase, and/or workload (mental and/or physical activity) that can impair a person's alertness and ability to perform safety-related operational duties.		Annex I 'Part-DEFINITIONS' include an almost identical definition for 'fatigue'.
	Fatigue risk management system (FRMS). A data-driven means of continuously monitoring and managing fatigue-related safety risks, based upon scientific principles, knowledge and operational experience that aims to ensure relevant personnel are performing at adequate levels of alertness.		Not proposed for transposition with Part-ATS.
	Final approach. That part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified, a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or b) at the point of interception of the last track specified in the approach procedure; and ends at a point in the vicinity of an aerodrome from which: 1) a landing can be made; or 2)a missed approach procedure is initiated.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Final approach' means that part of an instrument approach procedure which commences at the specified final approach fix or point, or where such a fix or point is not specified,** **(a) at the end of the last procedure turn, base turn or inbound turn of a racetrack procedure, if specified; or** **(b) at the point of interception of the last track specified in the approach procedure; and** **ends at a point in the vicinity of an aerodrome from which:** **(a) a landing can be made; or** **(b) a missed approach procedure is initiated.**
	Flight crew member. A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.		Not proposed for transposition with Part-ATS.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	Flight information centre. A unit established to provide flight information service and alerting service.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(75).
	Flight information region. An airspace of defined dimensions within which flight information service and alerting service are provided.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(76).
	Flight information service. A service provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights.		Not proposed for transposition; exhaustive definition and explanation of FIS is provided within Part-ATS requirements. It is transposed also as SERA Article 2(77).
	Flight level. A surface of constant atmospheric pressure which is related to a specific pressure datum, 1 013.2 hectopascals (hPa), and is separated from other such surfaces by specific pressure intervals.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(78).
	Note 1.— A pressure type altimeter calibrated in accordance with the Standard Atmosphere: *a) when set to a QNH altimeter setting, will indicate altitude;* *b) when set to a QFE altimeter setting, will indicate height above the QFE reference datum;* *c) when set to a pressure of 1013.2 hPa, may be used to indicate flight levels.*		Not proposed for transposition with Part-ATS.
	Note 2.— The terms "height" and "altitude", used in Note 1 above, indicate altimetric rather than geometric heights and altitudes.		Not proposed for transposition with Part-ATS.
	Flight plan. Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft. *Note.— Specifications for flight plans are contained in Annex 2. When the expression "flight plan form" is used it denotes the model flight plan form at Appendix 2 to the PANS-ATM(Doc 4444)*		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'flight plan' means specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.** It is transposed also as SERA Article 2(79).

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	Forecast. A statement of expected meteorological conditions for a specified time or period, and for a specified area or portion of airspace.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(81).
	Geodetic datum. A minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame.		Not proposed for transposition with Part-ATS.
	Gregorian calendar. Calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108*) *Note.— In the Gregorian calendar, common years have 365 days and leap years 366 days divided into twelve sequential months.*		Not proposed for transposition with Part-ATS.
	Height. The vertical distance of a level, a point or an object considered as a point, measured from a specified datum.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(84).
	Human Factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.		Not proposed for transposition with Part-ATS.
	Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.		Not proposed for transposition with Part-ATS.
	IFR. The symbol used to designate the instrument flight rules.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'IFR' is the symbol used to designate the instrument flight rules.** It is transposed also as SERA Article 2(87).
	IFR flight. A flight conducted in accordance		Definition proposed for transposition within

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice, Notes, transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	with the instrument flight rules.		Annex I 'Part-DEFINITIONS', as follows: **'IFR flight' means a flight conducted in accordance with the instrument flight rules.** It is transposed also as SERA Article 2(88).
	IMC. The symbol used to designate instrument meteorological conditions.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'IMC' is the symbol used to designate instrument meteorological conditions.** It is transposed also as SERA Article 2(89).
	INCERFA. The code word used to designate an uncertainty phase.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'INCERFA' is the code word used to designate an uncertainty phase.**
	Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.		Not proposed for transposition with Part-ATS.
	Note.— The types of incidents which are of main interest to the International Civil Aviation Organization for accident prevention studies are listed in Annex 13, Attachment C.		Not proposed for transposition with Part-ATS.
	Instrument flight procedure design service. A service established for the design, documentation, validation, maintenance and periodic review of instrument flight procedures necessary for the safety, regularity and efficiency of air navigation.		Not proposed for transposition with Part-ATS.
	Instrument meteorological conditions (IMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'instrument meteorological conditions (IMC)' means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for**

			visual meteorological conditions. It is transposed also as SERA Article 2(91).
	Note.— The specified minima for visual meteorological conditions are contained in Annex 2.		Not proposed for transposition with Part-ATS.
	Integrity (aeronautical data). A degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorized amendment.		Not proposed for transposition with Part-ATS.
	Integrity classification (aeronautical data). Classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data is classified as: a) routine data: there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; b) essential data: there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and c) critical data: there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	International NOTAM office. An office designated by a State for the exchange of NOTAM internationally.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018.
	Level. A generic term relating to the vertical position of an aircraft in flight and meaning variously, height, altitude or flight level.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(93).

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	Manoeuvring area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: '**manoeuvring area' means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.** It is transposed also as SERA Article 2(94).
	Meteorological office. An office designated to provide meteorological service for international air navigation.		Definition not proposed for transposition as this term is no longer used in the context of Part-MET requirements in the ATM/ANS Common Requirements Regulation.
	Movement area. That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'movement area' means that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).** It is transposed also as SERA Article 2(96).
	Navigation specification. A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications: Required navigation performance (RNP) specification. A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH. Area navigation (RNAV) specification. A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5,		Not proposed for transposition with Part-ATS.

	RNAV 1.		
	Note 1.— The Performance-based Navigation (PBN) Manual *(Doc 9613), Volume II contains detailed guidance on navigation specifications.*		Not proposed for transposition with Part-ATS.
	Note 2.— The term RNP previously defined as "a statement of the navigation performance, necessary for operation within a defined airspace", has been removed from this Annex as the concept of RNP has been overtaken by the concept of PBN. The term RNP in this Annex is now solely used in the context of navigation specifications that require performance monitoring and alerting. E.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on board performance monitoring and alerting that are detailed in the the PBN Manual (Doc 9613).		Not proposed for transposition with Part-ATS.
	Non-duty period. A continuous and defined period of time, subsequent to and/or prior to duty periods, during which the air traffic controller is free of all duties.		Not proposed for transposition with Part-ATS. Annex I 'Part-DEFINITIONS' include an almost identical definition for 'rest period'.
	NOTAM. A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'.
	Obstacle. All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that: a) are located on an area intended for the surface movement of aircraft; or		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(98).

	b) extend above a defined surface intended to protect aircraft in flight; or c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.		
	Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.		Not proposed for transposition as it is already included in Article 3 of Regulation (EC) No 216/2008.
	Performance-based communication (PBC). Communication based on performance specifications applied to the provision of air traffic services.		Not proposed for transposition with Part-ATS.
	Note.— An RCP specification includes communication performance requirements that are allocated to system components in terms of the communication to be provided and associated transaction time, continuity, availability, integrity, safety and functionality needed for the proposed operation in the context of a particular airspace concept.		Not proposed for transposition with Part-ATS.
	Performance-based navigation (PBN). Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.		Not proposed for transposition with Part-ATS.
	Note.— Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.		Not proposed for transposition with Part-ATS.
	Performance-based surveillance (PBS). Surveillance based on performance specifications applied to the provision of air traffic services.		Not proposed for transposition with Part-ATS.

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	Note.— An RSP specification includes surveillance performance requirements that are allocated to system components in terms of the surveillance to be provided and associated data delivery time, continuity, availability, integrity, accuracy of the surveillance data, safety and functionality needed for the proposed operation in the context of a particular airspace concept.		Not proposed for transposition with Part-ATS.
	Pilot-in-command. The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'pilot-in-command' means the pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.** It is transposed also as SERA Article 2(100).
	Printed communications. Communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Printed communications' means communications which automatically provide a permanent printed record at each terminal of a circuit of all messages which pass over such circuit.**
	Prohibited area. An airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion 02/2018. It is transposed also as SERA Article 2(103).
	Radio navigation service. A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'radio navigation service' means a service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.**

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			It is transposed also as SERA Article 2(107).
	Radiotelephony. A form of radiocommunication primarily intended for the exchange of information in the form of speech.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'radiotelephony' means a form of radiocommunication primarily intended for the exchange of information in the form of speech.** It is transposed also as SERA Article 2(108).
	Reporting point. A specified geographical location in relation to which the position of an aircraft can be reported.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'reporting point' means a specified geographical location in relation to which the position of an aircraft can be reported.** It is transposed also as SERA Article 2(110).
	Required communication performance (RCP) specification. A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based communication.		Not proposed for transposition with Part-ATS.
	Required surveillance performance (RSP) specification. A set of requirements for air traffic service provision and associated ground equipment, aircraft capability, and operations needed to support performance-based surveillance.		Not proposed for transposition with Part-ATS.
	Rescue coordination centre. A unit responsible for promoting efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'.
	Restricted area. An airspace of defined dimensions, above the land areas or territorial		Definition proposed for transposition within Annex I 'Part-DEFINITIONS' with Opinion

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	waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.		02/2018. It is transposed also as SERA Article 2(111).
	Runway. A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(113).
	Runway visual range (RVR). The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. It is transposed also as SERA Article 2(115).
	Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.		Not proposed for transposition with Part-ATS.
	SIGMET information. Information issued by a meteorological watch office concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations.		Not proposed for transposition as it is already included in Annex I 'Part-DEFINITIONS'. Amendments to this definition are proposed with Opinion 02/2018. It is transposed also as SERA Article 2(119).
	Significant point. A specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and ATS purposes.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'significant point' means a specified geographical location used in defining an ATS route or the flight path of an aircraft and for other navigation and air traffic services purposes.** It is transposed also as SERA Article 2(121).
	Note.— There are three categories of significant points: ground-based navigation aid, intersection and waypoint. In the context of this definition, intersection is		Note proposed for transposition as GM1 to the definition of 'significant point', as follows: **There are three categories of significant**

	a significant point expressed as radials, bearings and/or distances from ground based navigation aids.		**points: ground-based navigation aid, intersection and waypoint. In the context of this definition, intersection is a significant point expressed as radials, bearings and/or distances from ground-based navigation aids.**
	Special VFR flight. A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below VMC.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'special VFR flight' means a VFR flight cleared by ATC to operate within a control zone in meteorological conditions below VMC.** It is transposed also as SERA Article 2(122).
	Station declination. An alignment variation between the zero degree radial of a VOR and true north, determined at the time the VOR station is calibrated.		Not proposed for transposition with Part-ATS.
	Taxiing. Movement of an aircraft on the surface of an aerodrome under its own power, excluding take-off and landing.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'taxiing' means movement of an aircraft on the surface of an aerodrome or an operating site under its own power, excluding take-off and landing.** It is transposed also as SERA Article 2(125).
	Terminal control area. A control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes.		Definition proposed for transposition within GM1 to Annex IV 'Part-ATS', as follows: **'terminal control area (TMA)' means a control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes.**
	Time-in-position. The period of time when an air traffic controller is exercising the privileges of the air traffic controller's licence at an operational position.		Not proposed for transposition with Part-ATS.
	Track. The projection on the earth's surface of		Definition proposed for transposition within

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	the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).		Annex I 'Part-DEFINITIONS', as follows: **'track' means the projection on the earth's surface of the path of an aircraft, the direction of which path at any point is usually expressed in degrees from North (true, magnetic or grid).** It is transposed also as SERA Article 2(130).
	Traffic avoidance advice. Advice provided by an air traffic services unit specifying manoeuvres to assist a pilot to avoid a collision.		Not proposed for transposition with Part-ATS. It is transposed also as SERA Article 2(131).
	Traffic information. Information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'traffic information' means information issued by an air traffic services unit to alert a pilot to other known or observed air traffic which may be in proximity to the position or intended route of flight and to help the pilot avoid a collision.** It is transposed also as SERA Article 2(132).
	Transfer of control point. A defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'transfer of control point' means a defined point located along the flight path of an aircraft, at which the responsibility for providing air traffic control service to the aircraft is transferred from one control unit or control position to the next.** It is transposed also as SERA Article 2(133).
	Transferring unit. Air traffic control unit in the process of transferring the responsibility for providing air traffic control service to an aircraft to the next air traffic control unit along the route of flight.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Transferring unit' means air traffic control unit in the process of transferring the responsibility for providing air traffic control**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			service to an aircraft to the next air traffic control unit along the route of flight.
	Uncertainty phase. A situation wherein uncertainty exists as to the safety of an aircraft and its occupants.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'uncertainty phase' means a situation wherein uncertainty exists as to the safety of an aircraft and its occupants.**
	VFR. The symbol used to designate the visual flight rules.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'VFR' is the symbol used to designate the visual flight rules.** It is transposed also as SERA Article 2(139).
	VFR flight. A flight conducted in accordance with the visual flight rules.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'VFR flight' means a flight conducted in accordance with the visual flight rules.** It is transposed also as SERA Article 2(140).
	Visual meteorological conditions (VMC). Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima. *Note.— The specified minima are contained in Annex 2.*		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'visual meteorological conditions (VMC)' means meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima.** It is transposed also as SERA Article 2(142).
	VMC. The symbol used to designate visual meteorological conditions.		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'VMC' is the symbol used to designate visual meteorological conditions.** It is transposed also as SERA Article 2(143).
	Waypoint. A specified geographical location used to define an area navigation route or the flight path of an aircraft employing area		Definition proposed for transposition within Annex I 'Part-DEFINITIONS', as follows: **'Waypoint' means a specified geographical**

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	navigation. Waypoints are identified as either: Fly-by waypoint. A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or Flyover waypoint. A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.		**location used to define an area navigation route or the flight path of an aircraft employing area navigation. Waypoints are identified as either:** **a) Fly-by waypoint. A waypoint which requires turn anticipation to allow tangential interception of the next segment of a route or procedure, or** **b) Flyover waypoint. A waypoint at which a turn is initiated in order to join the next segment of a route or procedure.**
2.	CHAPTER 2. GENERAL		
2.1.1	Establishment of authority Contracting States shall determine, in accordance with the provisions of this Annex and for the territories over which they have jurisdiction, those portions of the airspace and those aerodromes where air traffic services will be provided. They shall thereafter arrange for such services to be established and provided in accordance with the provisions of this Annex, except that, by mutual agreement, a State may delegate to another State the responsibility for establishing and providing air traffic services in flight information regions, control areas or control zones extending over the territories of the former.		Not proposed for transposition with Part-ATS.
	Note.— If one State delegates to another State the responsibility for the provision of air traffic services over its territory, it does so without derogation of its national sovereignty. Similarly, the providing State's responsibility is limited to technical and operational considerations and does not extend beyond those pertaining to the safety and expedition of aircraft using		Not proposed for transposition with Part-ATS.

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	the concerned airspace. Furthermore, the providing State in providing air traffic services within the territory of the delegating State will do so in accordance with the requirements of the latter which is expected to establish such facilities and services for the use of the providing State as are jointly agreed to be necessary. It is further expected that the delegating State would not withdraw or modify such facilities and services without prior consultation with the providing State. Both the delegating and providing States may terminate the agreement between them at any time.		
2.1.2	Those portions of the airspace over the high seas or in airspace of undetermined sovereignty where air traffic services will be provided shall be determined on the basis of regional air navigation agreements. A Contracting State having accepted the responsibility to provide air traffic services in such portions of airspace shall thereafter arrange for the services to be established and provided in accordance with the provisions of this Annex.		Not proposed for transposition with Part-ATS.
	Note 1.— The phrase "regional air navigation agreements" refers to the agreements approved by the Council of ICAO normally on the advice of Regional Air Navigation Meetings.		Not proposed for transposition with Part-ATS.
	Note 2.— The Council, when approving the Foreword to this Annex, indicated that a Contracting State accepting the responsibility for providing air traffic services over the high seas or in airspace of undetermined sovereignty may apply the Standards and Recommended Practices in a manner consistent with that adopted for airspace under its jurisdiction.		Not proposed for transposition with Part-ATS.
2.1.3	When it has been determined that air traffic services will be provided, the States concerned shall designate the authority responsible for providing such services		Not proposed for transposition with Part-ATS.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice,* *Notes,* *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	Note 1.— The authority responsible for establishing and providing the services may be a State or a suitable Agency. *Note 2.— Situations which arise in respect of the establishment and provision of air traffic services to either part or whole of an international flight are as follows:* Situation 1: *A route, or portion of a route, contained within airspace under the sovereignty of a State establishing and providing its own air traffic services.* Situation 2: *A route, or portion of a route, contained within airspace under the sovereignty of a State which has, by mutual agreement, delegated to another State, responsibility for the establishment and provision of air traffic services.* Situation 3: *A portion of a route contained within airspace over the high seas or in airspace of undetermined sovereignty for which a State has accepted the responsibility for the establishment and provision of air traffic services. For the purpose of this Annex, the State which designates the authority responsible for establishing and providing the air traffic services is:* in Situation 1: *the State having sovereignty over the relevant portion of the airspace;* in Situation 2: *the State to whom responsibility for the establishment and provision of air traffic services has been delegated;* in Situation 3: *the State which has accepted the responsibility for the establishment and provision of air traffic services.*		Not proposed for transposition with Part-ATS.
2.1.4	Where air traffic services are established, information shall be published as necessary to permit the utilization of such services.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.125(a), as follows: **(a) An air traffic services provider shall provide to the relevant aeronautical information services provider the**

			aeronautical information to be published as necessary to permit the utilisation of such air traffic services.
2.2	Objectives of the air traffic services The objectives of the air traffic services shall be to: a) prevent collisions between aircraft; b) prevent collisions between aircraft on the manoeuvring area and obstructions on that area; c) expedite and maintain an orderly flow of air traffic; d) provide advice and information useful for the safe and efficient conduct of flights; e) notify appropriate organizations regarding aircraft in need of search and rescue aid, and assist such organizations as required.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.100, as follows: **The objectives of the air traffic services shall be to:** **(a) prevent collisions between aircraft;** **(b) prevent collisions between aircraft on the manoeuvring area and obstructions on that area;** **(c) expedite and maintain an orderly flow of air traffic;** **(d) provide advice and information useful for the safe and efficient conduct of flights;** **(e) notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required.** It is transposed also as SERA.7001.
2.3.1	Divisions of the air traffic services The air traffic services shall comprise three services identified as follows. The air traffic control service, to accomplish objectives a), b) and c) of 2.2, this service being divided in three parts as follows: a) Area control service: the provision of air traffic control service for controlled flights, except for those parts of such flights described in 2.3.1 b) and c), in order to accomplish		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.105(a), as follows: **The air traffic services shall comprise the services identified as follows:** **(a) The air traffic control service, to accomplish the objectives as in points (a), (b) and (c) of ATS.TR.100, this service being divided in three parts as follows:**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	objectives a) and c) of 2.2; b) Approach control service: the provision of air traffic control service for those parts of controlled flights associated with arrival or departure, in order to accomplish objectives a) and c) of 2.2; c) Aerodrome control service: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in 2.3.1 b), in order to accomplish objectives a), b) and c) of 2.2.		**(1) Area control service: the provision of air traffic control service for controlled flights, except for those parts of such flights described in points (a)(2) and (a)(3), in order to accomplish the objectives established in points (a) and (c) of ATS.TR.100;** **(2) Approach control service: the provision of air traffic control service for those parts of controlled flights associated with arrival or departure, in order to accomplish the objectives established in points (a) and (c) of ATS.TR.100; and** **(3) Aerodrome control service: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in point (a)(2), in order to accomplish the objectives established in points (a), (b) and (c) of ATS.TR.100.**
2.3.2	The flight information service, to accomplish objective d) of 2.2.	**Mention to the air traffic advisory service in Part-ATS.**	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.105(b), as follows: **(b) The flight information service and/or air**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			traffic advisory service, to accomplish the objective established in point (d) of ATS.TR.100; and
2.3.3	The alerting service, to accomplish objective e) of 2.2.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.105(c), as follows: **(c) The alerting service, to accomplish the objective established in point (e) of ATS.TR.100.**
2.4.1	Determination of the need for air traffic services The need for the provision of air traffic services shall be determined by consideration of the following: a) the types of air traffic involved; b) the density of air traffic; c) the meteorological conditions; d) such other factors as may be relevant.		Proposed for transposition within the Cover Regulation as Article 3a(1), as follows: **1. Member States shall determine the need for the provision of air traffic services by taking into consideration the following:** **(a) the types of air traffic involved;** **(b) the density of air traffic;** **(c) the meteorological conditions;** **(d) such other factors as may be relevant.**
	Note.— Due to the number of elements involved, it has not been possible to develop specific data to determine the need for air traffic services in a given area or at a given location. For example: *a) a mixture of different types of air traffic with aircraft of varying speeds (conventional jet, etc.) might necessitate the provision of air traffic services, whereas a relatively greater density of traffic where only one*		Proposed for transposition as GM1 Article 3a(1), as follows: **The determination of the need for air traffic services (ATS) provision in a given area and/or aerodrome may be subject to consideration and evaluation of a great number and typology of elements, such as:**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	type of operation is involved would not; *b) meteorological conditions might have considerable effect in areas where there is a constant flow of air traffic (e.g. scheduled traffic), whereas similar or worse meteorological conditions might be relatively unimportant in an area where air traffic would be discontinued in such conditions (e.g. local VFR flights);* *c) open stretches of water, mountainous, uninhabited or desert areas might necessitate the provision of air traffic services even though the frequency of operations is extremely low.*		**(a) a mixture of different types of air traffic with aircraft of varying speeds (conventional, jet, etc.) might necessitate the ATS provision, whereas a relatively greater density of traffic where only one type of operation is involved would not;** **(b) meteorological conditions might have considerable effect in areas where there is a constant flow of air traffic (e.g. scheduled traffic), whereas similar or worse meteorological conditions might be relatively unimportant in an area where air traffic would be discontinued in such conditions (e.g. local visual flight rules (VFR) flights);** **(c) open stretches of water, mountainous, uninhabited or desert areas might necessitate the ATS provision even though the frequency of operations is extremely low;** **(d) the complexity of the airspace concerned; and** **(e) the language(s) to be used in air-ground communications, in the case of aerodrome flight information service (AFIS).**
2.4.2	The carriage of airborne collision avoidance systems (ACAS) by aircraft in a given area shall not be a factor in determining the need for air traffic services in that area.		Proposed for transposition within the Cover Regulation as Article 3a(2), as follows: **2. The carriage of airborne collision avoidance systems (ACAS) by aircraft**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice,* *Notes,* *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			in a given area shall not be a factor in determining the need for air traffic services in that area.
2.5.1	Designation of the portions of the airspace and controlled aerodromes where air traffic services will be provided When it has been determined that air traffic services will be provided in particular portions of the airspace or at particular aerodromes, then those portions of the airspace or those aerodromes shall be designated in relation to the air traffic services that are to be provided.		Not proposed for transposition with Part-ATS.
2.5.2	The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:		Not proposed for transposition with Part-ATS.
2.5.2.1	Flight information regions. Those portions of the airspace where it is determined that flight information service and alerting service will be provided shall be designated as flight information regions.		Not proposed for transposition with Part-ATS. It replicates the definition of 'flight information region' transposed as (51) of Annex I 'Part-DEFINITIONS'
2.5.2.2.1	Control areas and control zones Those portions of the airspace where it is determined that air traffic control service will be provided to IFR flights shall be designated as control areas or control zones.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— The distinction between control areas and control zones is made in 2.11.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.5.2.2.1.1	Those portions of controlled airspace wherein it is determined that air traffic control service will		Not proposed for transposition with Part-ATS.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	also be provided to VFR flights shall be designated as Classes B, C, or D airspace.		
2.5.2.2.2	Where designated within a flight information region, control areas and control zones shall form part of that flight information region.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.5.2.3	Controlled aerodromes. Those aerodromes where it is determined that air traffic control service will be provided to aerodrome traffic shall be designated as controlled aerodromes.		It replicates the definition of 'controlled aerodrome', proposed for transposition within Annex I 'Part-DEFINITIONS' with Part-ATS.
2.6.1	Classification of airspaces ATS airspaces shall be classified and designated in accordance with the following: Class A. IFR flights only are permitted, all flights are provided with air traffic control service and are separated from each other. Class B. IFR and VFR flights are permitted, all flights are provided with air traffic control service and are separated from each other. Class C. IFR and VFR flights are permitted, all flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights. Class D. IFR and VFR flights are permitted and all flights are provided with air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic		Not proposed for transposition with Part-ATS. Section 2.6 is transposed as SERA.6001 'Classification of airspaces' and its associated AMC and GM.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	information in respect of all other flights.		
	Class E. IFR and VFR flights are permitted, IFR flights are provided with air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as is practical. Class E shall not be used for control zones. Class F. IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.		
	Note.— Where air traffic advisory service is implemented, this is considered normally as a temporary measure only until such time as it can be replaced by air traffic control. (See also the PANS-ATM (Doc 4444), Chapter 9.)		
	Class G. IFR and VFR flights are permitted and receive flight information service if requested.		
2.6.2	States shall select those airspace classes appropriate to their needs.		
2.6.3	The requirements for flights within each class of airspace shall be as shown in the table in Appendix 4.		
	Note.— Where the ATS airspaces adjoin vertically, i.e. one above the other, flights at a common level would comply with requirements of, and be given services applicable to, the less restrictive class of airspace. In applying these criteria, Class B airspace is therefore considered less restrictive than Class A airspace; Class C airspace less restrictive than Class B airspace, etc.		
2.7.1	Performance-based navigation (PBN) operations In applying performance-based navigation, navigation specifications shall be prescribed by States. When applicable, the navigation		Not proposed for transposition with Part-ATS. Section 2.7 is proposed for transposition within the requirements of Opinion 10/2016 ‘Performance-based navigation implementation

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	specification(s) for designated areas, tracks or ATS routes shall be prescribed on the basis of regional air navigation agreements. In designating a navigation specification, limitations may apply as a result of navigation infrastructure constraints or specific navigation functionality requirements.		in the European air traffic management network'.
2.7.2	*Performance-based navigation operations should be implemented as soon as practicable.*		Not proposed for transposition with Part-ATS. Section 2.7 is proposed for transposition within the requirements of Opinion 10/2016 'Performance-based navigation implementation in the European air traffic management network'.
2.7.3	The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the airspace concerned.		Not proposed for transposition with Part-ATS. Section 2.7 is proposed for transposition within the requirements of Opinion 10/2016 'Performance-based navigation implementation in the European air traffic management network'.
2.7.3	*Note.— Applicable guidance on performance-based navigation and implementation is published in the* Performance-Based Navigation (PBN) Manual *(Doc 9613).*		Not proposed for transposition with Part-ATS. Section 2.7 is proposed for transposition within the requirements of Opinion 10/2016 'Performance-based navigation implementation in the European air traffic management network'.
2.8.1	Performance-based communication (PBC) operations In applying performance-based communication (PBC), RCP specifications shall be prescribed by States. When applicable, the RCP specification(s) shall be prescribed on the basis of regional air navigation agreements.		Not proposed for transposition with Part-ATS.
	Note.— In prescribing an RCP specification, limitations may apply as a result of communication infrastructure constraints or specific communication functionality requirements.		Not proposed for transposition with Part-ATS.

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2.8.2	The prescribed RCP specification shall be appropriate to the air traffic services provided in the airspace concerned.		Not proposed for transposition with Part-ATS.
2.8.2	*Note.—Information on the performance-based communication and surveillance (PBCS) concept and guidance material on its implementation are contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869).*		Not proposed for transposition with Part-ATS.
2.9	Performance-based surveillance (PBS) operations		
2.9.1	In applying performance-based surveillance (PBS), RSP specifications shall be prescribed by States. When applicable, the RSP specification(s) shall be prescribed on the basis of regional air navigation agreements.		Not proposed for transposition with Part-ATS.
	Note.— In prescribing an RSP specification, limitations may apply as a result of surveillance infrastructure constraints or specific surveillance functionality requirements.		Not proposed for transposition with Part-ATS.
2.9.2	The prescribed RSP specification shall be appropriate to the air traffic services provided.		Not proposed for transposition with Part-ATS.
2.9.3	Where an RSP specification has been prescribed by States for performance-based surveillance, ATS units shall be provided with equipment capable of performance consistent with the prescribed RSP specification(s).		Not proposed for transposition with Part-ATS.
	Note.— Information on the PBCS concept and guidance material on its implementation are contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869).		Not proposed for transposition with Part-ATS.
2.10.1	Establishment and designation of the units providing air traffic services The air traffic services shall be provided by units established and designated as follows:	.	Proposed for transposition within Annex IV ‘Part-ATS’ as ATS.TR.110(a), as follows: **(a) The air traffic services shall be provided**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	Flight information centres shall be established to provide flight information service and alerting service within flight information regions, unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility.		**by units established as follows:** **(1) Flight information centres shall be established to provide flight information service and alerting service within flight information regions unless the responsibility of providing such services within a flight information region is assigned to an air traffic control unit having adequate facilities for the discharge of such responsibility;** A new provision in point (a)(3) is proposed to recognise the AFIS unit as an ATS unit, as follows: **(3) AFIS units shall be established to provide flight information service and alerting service at AFIS aerodromes and within the airspace associated with such aerodromes.**
	Note.— This does not preclude delegating to other units the function of providing certain elements of the flight information service.		Not proposed for transposition with Part-ATS.
2.10.2	Air traffic control units shall be established to provide air traffic control service, flight information service and alerting service within control areas, control zones and at controlled aerodromes.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.110(a), as follows: **(2) Air traffic control units shall be established to provide air traffic control service, flight information service and alerting service within control areas,**

			control zones and at controlled aerodromes.
	Note.— The services to be provided by various air traffic control units are indicated in 3.2.		Not to be transposed as ATS requirement.
2.11.1	Specifications for flight information regions, control areas and control zones *The delineation of airspace, wherein air traffic services are to be provided, should be related to the nature of the route structure and the need for efficient service rather than to national boundaries.*		Not proposed for transposition with Part-ATS.
	Note 1.— Agreements to permit the delineation of airspace lying across national boundaries are advisable when such action will facilitate the provision of air traffic services (see 2.1.1). Agreements which permit delineation of airspace boundaries by straight lines will, for example, be most convenient where data processing techniques are used by air traffic services units.		Not proposed for transposition with Part-ATS.
	Note 2.— Where delineation of airspace is made by reference to national boundaries there is a need for suitably sited transfer points to be mutually agreed upon.		Not proposed for transposition with Part-ATS.
2.11.2.1	Flight information regions Flight information regions shall be delineated to cover the whole of the air route structure to be served by such regions.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.2.2	A flight information region shall include all airspace within its lateral limits, except as limited by an upper flight information region.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.2.3	Where a flight information region is limited by an upper flight information region, the lower limit specified for the upper flight information		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
	region shall constitute the upper vertical limit of the flight information region and shall coincide with a VFR cruising level of the tables in Appendix 3 to Annex2.		02/2018.
	Note.— In cases where an upper flight information region is established the procedures applicable therein need not be identical with those applicable in the underlying flight information region.		Not proposed for transposition with Part-ATS.
2.11.3.1	Control areas Control areas including, inter alia, airways and terminal control areas shall be delineated so as to encompass sufficient airspace to contain the flight paths of those IFR flights or portions thereof to which it is desired to provide the applicable parts of the air traffic control service, taking into account the capabilities of the navigation aids normally used in that area.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— In a control area other than one formed by a system of airways, a system of routes may be established to facilitate the provision of air traffic control.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.3.2	A lower limit of a control area shall be established at a height above the ground or water of not less than 200 m (700 ft).		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— This does not imply that the lower limit has to be established uniformly in a given control area (see Figure A-5 of the Air Traffic Services Planning Manual *(Doc 9426), Part I, Section 2, Chapter 3).*		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.3.2.1	*The lower limit of a control area should, when practicable and desirable in order to allow freedom of action for VFR flights below the control area, be established at a greater height*		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.

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	than the minimum specified in 2.10.3.2.		
2.11.3.2.2	When the lower limit of a control area is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018. The Table of Cruising levels mentioned in 2.11.3.2.1 is transposed within Appendix 3 to the SERA Regulation.
	Note.— This implies that the selected VFR cruising level be such that expected local atmospheric pressure variations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.3.3	An upper limit of a control area shall be established when either: a) air traffic control service will not be provided above such upper limit; or b) the control area is situated below an upper control area, in which case the upper limit shall coincide with the lower limit of the upper control area. When established, such upper limit shall coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.4	Flight information regions or control areas in the upper airspace *Where it is desirable to limit the number of flight information regions or control areas through which high flying aircraft would otherwise have to operate, a flight information region or control area, as appropriate, should be delineated to include the upper airspace*		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.

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	within the lateral limits of a number of lower flight information regions or control areas.		
2.11.5.1	Control zones The lateral limits of control zones shall encompass at least those portions of the airspace, which are not within control areas, containing the paths of IFR flights arriving at and departing from aerodromes to be used under instrument meteorological conditions.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— Aircraft holding in the vicinity of aerodromes are considered as arriving aircraft.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.5.2	The lateral limits of a control zone shall extend to at least 9.3 km (5 NM) from the centre of the aerodrome or aerodromes concerned in the directions from which approaches may be made.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— A control zone may include two or more aerodromes situated close together		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.5.3	If a control zone is located within the lateral limits of a control area, it shall extend upwards from the surface of the earth to at least the lower limit of the control area.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— An upper limit higher than the lower limit of the overlying control area may be established when desired.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.11.5.4	*If a control zone is located outside of the lateral limits of a control area, an upper limit should be established.*		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
2.11.5.5	*If it is desired to establish the upper limit of a control zone at a level higher than the lower limit of the control area established above it, or if the control zone is located outside of the lateral limits of a control area, its upper limit should be established at a level which can easily be identified by pilots. When this limit is above 900 m (3 000 ft) MSL it should coincide with a VFR cruising level of the tables in Appendix 3 to Annex 2.*		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018. The Table of Cruising levels mentioned in 2.11.3.2.1 is transposed into Appendix 3 to the SERA Regulation.
	Note.— This implies that, if used, the selected VFR cruising level be such that expected local atmospheric pressure variations do not result in a lowering of this limit to a height of less than 200 m (700 ft) above ground or water		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.12.1	Identification of air traffic services units and airspaces *An area control centre or flight information centre should be identified by the name of a nearby town or city or geographic feature.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.115(a), as follows: **(a) Air traffic services units shall be unambiguously named as follows:** **(1) an area control centre or flight information centre shall normally be identified by the name of a nearby town or city or geographic feature or area;**
2.12.2	*An aerodrome control tower or approach control unit should be identified by the name of the aerodrome at which it is located.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.115(a), as follows: **(2) an aerodrome control tower or approach control unit shall normally be identified by the name of the aerodrome at which it is**

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			providing services or by the name of a nearby town or city or geographic feature or area; and A new provision is proposed in ATS.TR.115(a)(3) to specify how AFIS units have to be named, as follows: **(3) an AFIS unit shall normally be identified by the name of the aerodrome at which it is providing services or by the name of a nearby town or city or geographic feature or area.**
2.12.3	*A control zone, control area or flight information region should be identified by the name of the unit having jurisdiction over such airspace.*		Not proposed for transposition with Part-ATS.
2.13.1	Establishment and identification of ATS routes When ATS routes are established, a protected airspace along each ATS route and a safe spacing between adjacent ATS routes shall be provided.		Not proposed for transposition with Part-ATS.
2.13.2	*When warranted by density, complexity or nature of the traffic, special routes should be established for use by low-level traffic, including helicopters operating to and from helidecks on the high seas. When determining the lateral spacing between such routes, account should be taken of the navigational means available and the navigation equipment carried on board helicopters.*		Not proposed for transposition with Part-ATS.

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2.13.3	ATS routes shall be identified by designators.		Not proposed for transposition with Part-ATS.
2.13.4	Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles set forth in Appendix 1.		Not proposed for transposition with Part-ATS.
2.13.5	Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles set forth in Appendix 3.		Not proposed for transposition with Part-ATS.
	Note 1.— Guidance material relating to the establishment of ATS routes is contained in the Air Traffic Services Planning Manual *(Doc 9426).*		Not proposed for transposition with Part-ATS.
	Note 2.— Guidance material relating to the establishment of ATS routes defined by VOR is contained in Attachment A.		Not proposed for transposition with Part-ATS.
	Note 3.— The spacing between parallel tracks or between parallel ATS route centre lines based on performance-based navigation will be dependent upon the relevant navigation specification required.		Not proposed for transposition with Part-ATS.
2.14.1	Establishment of change-over points *Change-over points should be established on ATS route segments defined by reference to very high frequency omnidirectional radio ranges where this will assist accurate navigation along the route segments. The establishment of change-over points should be limited to route segments of 110 km (60 NM) or more, except where the complexity of ATS routes, the density of navigation aids or other technical and operational reasons warrant the establishment of change-over points on shorter route segments.*		Not proposed for transposition with Part-ATS.
2.14.2	*Unless otherwise established in relation to the*		Not proposed for transposition with Part-ATS.

	performance of the navigation aids or frequency protection criteria, the change-over point on a route segment should be the mid-point between the facilities in the case of a straight route segment or the intersection of radials in the case of a route segment which changes direction between the facilities.		
	Note.— Guidance on the establishment of change-over points is contained in Attachment A.		Not proposed for transposition with Part-ATS.
2.15.1	Establishment and identification of significant points Significant points shall be established for the purpose of defining an ATS route or instrument approach procedure and/or in relation to the requirements of air traffic services for information regarding the progress of aircraft in flight.		Not proposed for transposition with Part-ATS.
2.15.2	Significant points shall be identified by designators.		Not proposed for transposition with Part-ATS.
2.15.3	Significant points shall be established and identified in accordance with the principles set forth in Appendix 2.		Not proposed for transposition with Part-ATS.
2.16.1	Establishment and identification of standard routes for taxiing aircraft *Where necessary, standard routes for taxiing aircraft should be established on an aerodrome between runways, aprons and maintenance areas. Such routes should be direct, simple and where practicable, designed to avoid traffic conflicts.*		Proposed for transposition as AMC1 ATS.OR.110, as follows: **(a) The air traffic services provider, in coordination with the aerodrome operator, should assess the necessity for establishing standard routes for taxiing aircraft on an aerodrome between runways, aprons and maintenance areas.** **(b) When established, such routes should be direct, simple and, where**

			practicable, designed to avoid traffic conflicts.
2.16.2	*Standard routes for taxiing aircraft should be identified by designators distinctively different from those of the runways and ATS routes.*		Proposed for transposition as AMC1 ATS.OR.110, as follows: **(c) Standard routes for taxiing aircraft should be identified by designators distinctively different from those of the runways and ATS routes.**
2.17.1	Coordination between the operator and air traffic services Air traffic services units, in carrying out their objectives, shall have due regard for the requirements of the operators consequent on their obligations as specified in Annex 6, and, if so required by the operators, shall make available to them or their designated representatives such information as may be available to enable them or their designated representatives to carry out their responsibilities.		Not proposed for transposition with Part-ATS. Section 2.17 is transposed as SERA.7005.
2.17.2	When so requested by an operator, messages (including position reports) received by air traffic services units and relating to the operation of the aircraft for which operational control service is provided by that operator shall, so far as practicable, be made available immediately to the operator or a designated representative in accordance with locally agreed procedures.		Not proposed for transposition with Part-ATS. Section 2.17 is transposed as SERA.7005.
	Note.— For aircraft subjected to unlawful interference, see 2.24.3.		Not proposed for transposition with Part-ATS.
2.18.1	Coordination between military authorities and air traffic services Air traffic services authorities shall establish		Not proposed for transposition with Part-ATS, as considered covered by Regulation (EC) No 2150/2005. The proposed transposition of

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	and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.		provision 2.18.3.1 is also relevant.
2.18.2	Coordination of activities potentially hazardous to civil aircraft shall be effected in accordance with 2.19.		Not proposed for transposition with Part-ATS, as considered covered by the proposed transposition of Section 2.19.1 as Article 3c of the Cover Regulation.
2.18.3	Arrangements shall be made to permit information relevant to the safe and expeditious conduct of flights of civil aircraft to be promptly exchanged between air traffic services units and appropriate military units.		Not proposed for transposition with Part-ATS, as considered covered by Article 6 of Regulation (EC) No 2150/2005.
2.18.3.1	Air traffic services units shall, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft. In order to eliminate or reduce the need for interceptions, air traffic services authorities shall designate any areas or routes where the requirements of Annex 2 concerning flight plans, two-way communications and position reporting apply to all flights to ensure that all pertinent data is available in appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft.	Consider if the transposition of the second sentence as GM, with the proposed approach to consider the Standard covered in point (b) of Article 3b(2), constitutes a difference with ICAO.	The first sentence is proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.115, as follows: **Without prejudice to Article 6 of Commission Regulation (EC) No 2150/2005, an air traffic services providers shall ensure that its air traffic services units, either routinely or on request, in accordance with locally agreed procedures, provide appropriate military units with pertinent flight plan and other data concerning flights of civil aircraft in order to facilitate their identification.** The second sentence (with a reworded text) is proposed for transposition as GM1 to Article 3b(2), as follows: **The requirement is generic and includes but is not limited to the need to designate areas or routes where the requirements concerning flight plans, two-way communications and position reporting are applicable to all flights. This should be done to ensure that all**

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			pertinent data is available for the use of the appropriate ATS units specifically for the purpose of facilitating identification of civil aircraft and thus of eliminating or reducing the need for interceptions.
	Note.— For aircraft subjected to unlawful interference, see 2.24.3 and 2.25.1.3.		Not proposed for transposition with Part-ATS.
2.18.3.2	Special procedures shall be established in order to ensure that: a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary; b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.		Proposed for transposition within the Cover Regulation as Article 3b, as follows: **Member States shall ensure that special procedures are established so that:** **a) air traffic services units are notified if a military unit observes that an aircraft which is, or might be, a civil aircraft is approaching, or has entered, any area in which interception might become necessary;** **b) all possible efforts are made to confirm the identity of the aircraft and to provide it with the navigational guidance necessary to avoid the need for interception.**
2.19.1	Coordination of activities potentially hazardous to civil aircraft The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of a State or over the high seas, shall be coordinated with the appropriate air traffic services authorities. The coordination shall be effected early enough to permit timely promulgation of information regarding the activities in accordance with the provisions of Annex 15.		Proposed for transposition within the Cover Regulation as Article 3c(a), as follows: **(a) Member States shall ensure that the arrangements for activities potentially hazardous to civil aircraft over their territory are coordinated. When over the high seas, potentially hazardous activities shall be coordinated with the competent authority of the State having accepted, pursuant to an ICAO Regional Air Navigation Agreement,**

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			the responsibility to provide air traffic services within the airspace concerned. The coordination shall be effected early enough to permit timely promulgation of information regarding these activities.
2.19.1.1	*If the appropriate ATS authority is not that of the State where the organization planning the activities is located, initial coordination should be effected through the ATS authority responsible for the airspace over the State where the organization is located.*		Not proposed for transposition with Part-ATS.
2.19.2	The objective of the coordination shall be to achieve the best arrangements which will avoid hazards to civil aircraft and minimize interference with the normal operations of such aircraft.		Not proposed for transposition with Part-ATS.
2.19.2.1	*In determining these arrangements the following should be applied:* *a) the locations or areas, times and durations for the activities should be selected to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;* *b) the size of the airspace designated for the conduct of the activities should be kept as small as possible;* *c)direct communication between the appropriate ATS authority or air traffic services unit and the organization or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other*		Proposed for transposition as GM1 to Article 3c(1), as follows: **In determining these arrangements, the following should be applied:** **(a) the locations or areas, times and durations for the activities should be selected to avoid closure or realignment of established ATS routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;** **(b) the size of the airspace designated for the conduct of the activities should be kept as small as possible; and** **(c) direct communication between the appropriate ATS unit(s) and the**

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	unforeseen circumstances require discontinuation of the activities.		**organisation or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.**
2.19.3	The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.		Proposed for transposition within the Cover Regulation as Article 3c(2), as follows: **(2) Member States shall establish arrangements for the promulgation of information regarding such activities.**
2.19.4	*If activities potentially hazardous to civil aircraft take place on a regular or continuing basis, special committees should be established as required to ensure that the requirements of all parties concerned are adequately coordinated.*		Not proposed for transposition with Part-ATS. GM2 to Article 3c(1) indicates ICAO Doc 9554 as a source of guidance for such coordination.
2.19.5	Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations.		Proposed for transposition within the Cover Regulation as Article 3c(3), as follows: **(3) Member States shall take adequate measures to prevent emission of laser beams from adversely affecting flight operations.** Questions on the suitability of the proposal and on how States have implemented this provision, are asked in the NPA.
	Note 1.— Guidance material regarding the hazardous effects of laser emitters on flight operations is contained in the Manual on Laser Emitters and Flight Safety (Doc 9815).		Not proposed for transposition with Part-ATS.
	Note 2.— See also Annex 14 — Aerodromes, *Volume I* — Aerodrome Design and Operations, *Chapter 5.*		Not proposed for transposition with Part-ATS.
2.19.6	*In order to provide added airspace capacity and to improve efficiency and flexibility of aircraft*		Not proposed for transposition with Part-ATS, as already included in Regulation (EC) No

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	operations, States should establish procedures providing for a flexible use of airspace reserved for military or other special activities. The procedures should permit all airspace users to have safe access to such reserved airspace.		2150/2005.
2.20.1	Aeronautical data Determination and reporting of air traffic services-related aeronautical data shall be in accordance with the accuracy and integrity requirements set forth in Tables 1 to 5 contained in Appendix 5 while taking into account the established quality system procedures. Accuracy requirements for aeronautical data are based upon a 95 per cent confidence level, and in that respect three types of positional data shall be identified: surveyed points (e.g. navigation aids positions), calculated points (mathematical calculations from the known surveyed points of points in space, fixes) and declared points (e.g. flight information region boundary points).		Not proposed for transposition with Part-ATS, as covered by the introduction, within the ATM/ANS Common Requirements Regulation, of a general requirement, applicable to all providers, included in the proposal in Opinion 02/2018 concerning Part-AIS.
	Note.— Specifications governing the quality system are given in Annex 15, Chapter 3.		Not proposed for transposition with Part-ATS.
2.20.2	2.19.2 Contracting States shall ensure that integrity of aeronautical data is maintained throughout the data process from survey/origin to the next intended user. Based on the applicable integrity classification, the validation and verification procedures shall: a) for routine data: avoid corruption throughout the processing of the data; b) for essential data: assure corruption does not occur at any stage of the entire process and may include additional processes as needed to		Not proposed for transposition with Part-ATS.

	address potential risks in the overall system architecture to further assure data integrity at this level; and c) for critical data: assure corruption does not occur at any stage of the entire process and include additional integrity assurance procedures to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.		
	Note.— Guidance material in respect to the processing of aeronautical data and aeronautical information is contained in RTCA Document DO-200A and European Organization for Civil Aviation Equipment (EUROCAE) Document ED-76 — Standards for Processing Aeronautical Data.		Not proposed for transposition with Part-ATS.
2.20.3	Electronic aeronautical data sets shall be protected by the inclusion in the data sets of a 32-bit cyclic redundancy check (CRC) implemented by the application dealing with the data sets. This shall apply to the protection of all integrity levels of data sets as specified in 2.19.2.		Not proposed for transposition with Part-ATS.
	Note 1.— The requirement in 2.19.3 does not apply to the communications systems used for the transfer of data sets. *Note 2.— Guidance material on the use of a 32-bit CRC algorithm to implement a protection of electronic aeronautical data sets is contained in the Aeronautical Information Services Manual (Doc 8126).*		Not proposed for transposition with Part-ATS.
2.20.4	Geographical coordinates indicating latitude and		Not proposed for transposition with Part-ATS.

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	longitude shall be determined and reported to the aeronautical information services authority in terms of the World Geodetic System - 1984 (WGS-84) geodetic reference datum, identifying those geographical coordinates which have been transformed into WGS-84 coordinates by mathematical means and whose accuracy of original field work does not meet the requirements in Appendix 5, Table 1.		
2.20.5	The order of accuracy of the field work and determinations and calculations derived therefrom shall be such that the resulting operational navigation data for the phases of flight will be within the maximum deviations, with respect to an appropriate reference frame, as indicated in the tables contained in Appendix 5.		Not proposed for transposition with Part-ATS.
	Note 1.— An appropriate reference frame is that which enables WGS-84 to be realized on a given position and with respect to which all coordinate data are related. *Note 2.— Specifications governing the publication of aeronautical data are given in Annex 4, Chapter 2 and Annex 15, Chapter 3.* *Note 3.— For those fixes and points that are serving a dual purpose, e.g. holding point and missed approach point, the higher accuracy applies.*		Not proposed for transposition with Part-ATS.
2.21.1	Coordination between meteorological and air traffic services authorities To ensure that aircraft receive the most up-to-date meteorological information for aircraft operations, arrangements shall be made, where necessary, between meteorological and air traffic services authorities for air traffic services personnel:		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.120(a), as follows: **(a) To ensure that aircraft receive the most up-to-date meteorological information for aircraft operations, an air traffic services provider shall make arrangements with the associated meteorological services**

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	a) in addition to using indicating instruments, to report, if observed by air traffic services personnel or communicated by aircraft, such other meteorological elements as may be agreed upon; b) to report as soon as possible to the associated meteorological office meteorological phenomena of operational significance, if observed by air traffic services personnel or communicated by aircraft, which have not been included in the aerodrome meteorological report;		**provider for air traffic services personnel:** **(1) in addition to using indicating instruments, to report, if observed by air traffic services personnel or communicated by aircraft, such other meteorological elements as may be agreed upon;** **(2) to report as soon as possible meteorological phenomena of operational significance, if observed by air traffic services personnel or communicated by aircraft, which have not been included in the aerodrome meteorological report;**
	c) to report as soon as possible to the associated meteorological office pertinent information concerning pre-eruption volcanic activity, volcanic eruptions and information concerning volcanic ash cloud. In addition, area control centres and flight information centres shall report the information to the associated meteorological watch office and volcanic ash advisory centres (VAACs).		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.120(a), as follows: **(3) to report as soon as possible pertinent information concerning pre-eruption volcanic activity, volcanic eruptions and information concerning volcanic ash cloud. In addition, area control centres and flight information centres shall report the information to the associated meteorological watch office and volcanic ash advisory centres (VAACs).**
	Note 1.— VAACs are designated by regional air navigation agreements in accordance with Annex 3,		Not proposed for transposition with Part-ATS.

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	Chapter 3, 3.5.1. *Note 2.— See 4.2.3 regarding transmission of special air-reports.*		
2.21.2	Close coordination shall be maintained between area control centres, flight information centres and associated meteorological watch offices to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.120(b), as follows: **(b) An air traffic services provider shall ensure that close coordination is maintained between area control centres, flight information centres and associated meteorological watch offices such that information on volcanic ash included in NOTAM and SIGMET messages is consistent.**
2.22.1	Coordination between aeronautical information services and air traffic services authorities To ensure that aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, arrangements shall be made between aeronautical information services and air traffic services authorities responsible for air traffic services to report to the responsible aeronautical information services unit, with a minimum of delay: a) information on aerodrome conditions; b) the operational status of associated facilities, services and navigation aids within their area of responsibility; c) the occurrence of volcanic activity observed by air traffic services personnel or reported by		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.125(b), as follows: **(b) To ensure that aeronautical information services providers obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, an air traffic services provider and aeronautical information services provider shall make arrangements to report to the responsible aeronautical information services provider, with a minimum of delay:** **(1) information on aerodrome conditions;** **(2) the operational status of associated facilities, services and navigation aids within their area of responsibility;**

	aircraft; and d) any other information considered to be of operational significance.		**(3) the occurrence of volcanic activity observed by air traffic services personnel or reported by aircraft; and** **(4) any other information considered to be of operational significance.**
2.22.2	Before introducing changes to the air navigation system, due account shall be taken by the services responsible for such changes of the time needed by the aeronautical information service for the preparation, production and issuance of relevant material for promulgation. To ensure timely provision of the information to the aeronautical information service, close coordination between those services concerned is therefore required.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.125(c), as follows: **(c) Before introducing changes to systems for air navigation under its responsibility, an air traffic services provider shall:** **(1) ensure close coordination with aeronautical information services provider(s) concerned;** **(2) take due account of the time needed by the aeronautical information services for the preparation, production and issuance of relevant material for promulgation;** **(3) provide the information to the aeronautical information services provider concerned.**
2.22.3	Of particular importance are changes to aeronautical information that affect charts and/or computer-based navigation systems which qualify to be notified by the Aeronautical Information Regulation and Control (AIRAC) system, as specified in Annex 15, Chapter 6 and Appendix 4. The predetermined, internationally agreed AIRAC effective dates in addition to 14 days postage time shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical		The first sentence does not include any requirement and therefore is not proposed for transposition with Part-ATS. The second sentence is proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.125(d), as follows: **(d) An air traffic services provider shall observe the predetermined, internationally agreed aeronautical information regulation and control (AIRAC) effective**

	information services.		**dates in addition to 14 days postage time when submitting to aeronautical information services providers the raw information/data subject to the AIRAC cycle.**
2.22.4	The air traffic services responsible for the provision of raw aeronautical information/data to the aeronautical information services shall do so while taking into account accuracy and integrity requirements for aeronautical data as specified in Appendix 5 to this Annex.		Not proposed for transposition with Part-ATS, as covered by the introduction, within the ATM/ANS Common Requirements Regulation, of a general requirement, applicable to all providers, included in the proposal in Opinion 02/2018 concerning Part-AIS.
	Note 1.— Specifications for the issue of a NOTAM, SNOWTAM and ASHTAM are contained in Annex 15, Chapter 5. *Note 2.— Reports of volcanic activity comprise the information detailed in Annex 3, Chapter 4.* *Note 3.— AIRAC information is distributed by the aeronautical information service at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.* *Note 4.— The schedule of the predetermined, internationally agreed AIRAC common effective dates at intervals of 28 days, and guidance for the AIRAC use are contained in the* Aeronautical Information Services Manual *(Doc 8126, Chapter 2, 2.6).*		Not proposed for transposition with Part-ATS.
2.23	Minimum flight altitudes Minimum flight altitudes shall be determined and promulgated by each Contracting State for each ATS route and control area over its territory. The minimum flight altitudes determined shall provide a minimum clearance above the controlling obstacle located within the areas concerned.		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
	Note.— The requirements for publication by States of		Not proposed for transposition with Part-ATS.

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	minimum flight altitudes and of the criteria used to determine them are contained in Annex 15, Appendix 1. Detailed obstacle clearance criteria are contained in PANS-OPS (Doc 8168), Volume II.		It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
2.24.1	Service to aircraft in the event of an emergency An aircraft known or believed to be in a state of emergency, including being subjected to unlawful interference, shall be given maximum consideration, assistance and priority over other aircraft as may be necessitated by the circumstances.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11001.
	Note.— To indicate that it is in a state of emergency, an aircraft equipped with an appropriate data link capability and/or an SSR transponder might operate the equipment as follows: *a) on Mode A, Code 7700; or* *b) on Mode A, Code 7500, to indicate specifically that it is being subjected to unlawful interference; and/or* *c) activate the appropriate emergency and/or urgency capability of ADS-B or ADS-C; and/or* *d) transmit the appropriate emergency message via CPDLC.*		Not proposed for transposition with Part-ATS. The principles of points a) and b) are already transposed as SERA.13005(a).
2.24.1.1	*In communications between ATS units and aircraft in the event of an emergency, Human Factors principles should be observed.*		Not proposed for transposition with Part-ATS.
	Note.— Guidance material on Human Factors principles can be found in the Human Factors Training Manual (Doc 9683).		Not proposed for transposition with Part-ATS.
2.24.2 .	When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall attend promptly to requests by the		Not proposed for transposition with Part-ATS. It is transposed as SERA.11005(b).

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	aircraft. Information pertinent to the safe conduct of the flight shall continue to be transmitted and necessary action shall be taken to expedite the conduct of all phases of the flight, especially the safe landing of the aircraft.		
2.24.3	When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall, in accordance with locally agreed procedures, immediately inform the appropriate authority designated by the State and exchange necessary information with the operator or its designated representative.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11005(c).
	Note 1.— A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference. See 2.24.1.3.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(c).
	Note 2.— Procedures relating to the handling of strayed or unidentified aircraft are contained in 2.24.1.		Not proposed for transposition with Part-ATS.
	Note 3.— PANS-ATM *(Doc 4444), Chapter 15, 15.1.3 contains more specific procedures related to unlawful interference*		Not proposed for transposition with Part-ATS. Provisions of Section 15.1.3 of PANS ATM are transposed as AMC1 SERA.11010 'In-flight contingencies'
2.25.1	In-flight contingencies Strayed or unidentified aircraft		
	Note 1.— The terms "strayed aircraft" and "unidentified aircraft" in this paragraph have the following meanings: Strayed aircraft. *An aircraft which has deviated significantly from its intended track or which reports that it is lost.* Unidentified aircraft. *An aircraft which has been observed or reported to be operating in a given area but whose identity has not been established.*		Not proposed for transposition with Part-ATS. Definitions transposed as SERA Article 2(123) and (137).
	Note 2.— An aircraft may be considered, at the same time, as a "strayed aircraft" by one unit and as an		Not to be transposed as ATS requirement. It is transposed as GM1 SERA.11010.

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	"unidentified aircraft" by another unit.		
	Note 3.— A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference		Not proposed for transposition as ATS requirement.
2.25.1.1	As soon as an air traffic services unit becomes aware of a strayed aircraft it shall take all necessary steps as outlined in 2.25.1.1.1 and 2.25.1.1.2 to assist the aircraft and to safeguard its flight.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(a).
	Note.— Navigational assistance by an air traffic services unit is particularly important if the unit becomes aware of an aircraft straying, or about to stray, into an area where there is a risk of interception or other hazard to its safety.		Not proposed for transposition with Part-ATS. It is transposed as GM1 SERA.11010.
2.25.1.1.1	If the aircraft's position is not known, the air traffic services unit shall: a) attempt to establish two-way communication with the aircraft, unless such communication already exists; b) use all available means to determine its position; c) inform other ATS units into whose area the aircraft may have strayed or may stray, taking into account all the factors which may have affected the navigation of the aircraft in the circumstances; d) inform, in accordance with locally agreed procedures, appropriate military units and provide them with pertinent flight plan and other data concerning strayed aircraft; e) request from the units referred to in c) and d) and from other aircraft in flight every assistance in establishing communication with the aircraft and determining its position.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(a)(1).

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	Note.— The requirements in d) and e) apply also to ATS units informed in accordance with c).		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(a)(2).
2.25.1.1.2	When the aircraft's position is established, the air traffic services unit shall: a) advise the aircraft of its position and corrective action to be taken; and b) provide, as necessary, other ATS units and appropriate military units with relevant information concerning the strayed aircraft and any advice given to that aircraft.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(a)(3).
2.25.1.2	As soon as an air traffic services unit becomes aware of an unidentified aircraft in its area, it shall endeavour to establish the identity of the aircraft whenever this is necessary for the provision of air traffic services or required by the appropriate military authorities in accordance with locally agreed procedures. To this end, the air traffic services unit shall take such of the following steps as are appropriate in the circumstances: a) attempt to establish two-way communication with the aircraft; b) inquire of other air traffic services units within the flight information region about the flight and request their assistance in establishing two-way communication with the aircraft; c) inquire of air traffic services units serving the adjacent flight information regions about the flight and request their assistance in establishing two-way communication with the aircraft; d) attempt to obtain information from other aircraft in the area.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(b).

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2.25.1.2.1	The air traffic services unit shall, as necessary, inform the appropriate military unit as soon as the identity of the aircraft has been established.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(b)(5).
2.25.1.3	Should the ATS unit consider that a strayed or unidentified aircraft may be the subject of unlawful interference, the appropriate authority designated by the State shall immediately be informed, in accordance with locally agreed procedures.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11010(c).
2.25.2.1	Interception of civil aircraft As soon as an air traffic services unit learns that an aircraft is being intercepted in its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances: a) attempt to establish two-way communication with the intercepted aircraft via any means available, including the emergency radio frequency 121.5 MHz, unless such communication already exists; b) inform the pilot of the intercepted aircraft of the interception; c) establish contact with the intercept control unit maintaining two-way communication with the intercepting aircraft and provide it with available information concerning the aircraft; d) relay messages between the intercepting aircraft or the intercept control unit and the intercepted aircraft, as necessary; e) in close coordination with the intercept control unit take all necessary steps to ensure the safety of the intercepted aircraft; f) inform ATS units serving adjacent flight information regions if it appears that the aircraft		Provision already transposed as SERA.11015 'Interception'. Not to be transposed as ATS requirement.

	has strayed from such adjacent flight information regions.		
2.25.2.2	As soon as an air traffic services unit learns that an aircraft is being intercepted outside its area of responsibility, it shall take such of the following steps as are appropriate in the circumstances: a) inform the ATS unit serving the airspace in which the interception is taking place, providing this unit with available information that will assist in identifying the aircraft and requesting it to take action in accordance with 2.23.2.1; b) relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.		Not proposed for transposition with Part-ATS. It is transposed as SERA.11015.
2.26.1	Time in air traffic services Air traffic services units shall use Coordinated Universal Time (UTC) and shall express the time in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.		Not proposed for transposition with Part-ATS. It is transposed as SERA.3401(a).
2.26.2	Air traffic services units shall be equipped with clocks indicating the time in hours, minutes and seconds, clearly visible from each operating position in the unit concerned.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.130(a), as follows: **(a) An air traffic services provider shall ensure that air traffic services units are equipped with clocks indicating the time in hours, minutes and seconds, clearly visible from each operating position in the unit concerned.**
2.26.3	Air traffic services unit clocks and other time-recording devices shall be checked as necessary to ensure correct time to within plus or minus 30		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.130(b), as follows: **(b) An air traffic services provider shall**

	seconds of UTC. Wherever data link communications are utilized by an air traffic services unit, clocks and other time-recording devices shall be checked as necessary to ensure correct time to within 1 second of UTC.		**ensure that air traffic services unit clocks and other time-recording devices are checked as necessary to ensure correct time to within plus or minus 30 seconds of UTC. Wherever data link communications are utilised by an air traffic services unit, clocks and other time-recording devices shall be checked as necessary to ensure correct time to within 1 second of UTC.** The second sentence is transposed also as SERA.3401(c).
2.26.4	The correct time shall be obtained from a standard time station or, if not possible, from another unit which has obtained the correct time from such station.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.130(c), as follows: **(c) The correct time shall be obtained from a standard time station or, if not possible, from another unit which has obtained the correct time from such station.**
2.26.5	Aerodrome control towers shall, prior to an aircraft taxiing for take-off, provide the pilot with the correct time, unless arrangements have been made for the pilot to obtain it from other sources. Air traffic services units shall, in addition, provide aircraft with the correct time on request. Time checks shall be given to the nearest half minute.		Not proposed for transposition with Part-ATS. It is transposed as SERA.3401(d).
2.27	Establishment of requirements for carriage and operation of pressure-altitude reporting		Not proposed for transposition with Part-ATS.

	transponders States shall establish requirements for carriage and operation of pressure-altitude reporting transponders within defined portions of airspace.		The principle is transposed with various requirements of SERA (e.g. Section 13 'SSR transponders')
	Note.— This provision is intended to improve the effectiveness of air traffic services as well as airborne collision avoidance systems.		Not proposed for transposition with Part-ATS.
2.28	Fatigue management		
	Note.— Guidance on the development and implementation of fatigue management regulations is contained in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).		Not proposed for transposition with Part-ATS.
2.28.1	States shall establish regulations for the purpose of managing fatigue in the provision of air traffic control services. These regulations shall be based upon scientific principles, knowledge and operational experience, with the aim of ensuring that air traffic controllers perform at an adequate level of alertness. To that aim, States shall establish: a) regulations that prescribe scheduling limits in accordance with Appendix 6; and b) where authorizing air traffic services providers to use a fatigue risk management system (FRMS) to manage fatigue, FRMS regulations in accordance with Appendix 7.		Not proposed for transposition with Part-ATS. ATCO Fatigue management requirements are established with ATS.TR.315 and ATS.TR.320 Annex IV 'Part-ATS', Subpart B, Section 3 of the ATM/ANS Common Requirements Regulation.
2.28.2	States shall require that the air traffic services provider, for the purposes of managing its fatigue-related safety risks, establish one of the following: a) air traffic controller schedules commensurate with the service(s) provided and in compliance with the prescriptive limitation regulations		Not proposed for transposition with Part-ATS. ATS.TR.320 Annex IV 'Part-ATS', Subpart B, Section 3 of the ATM/ANS Common Requirements Regulation stipulates ATS providers' requirements for the ATCO rostering system.

	established by the State in accordance with 2.28.1 a); or b) an FRMS, in compliance with regulations established by the State in accordance with 2.28.1 b), for the provision of all air traffic control services; or c) an FRMS, in compliance with regulations established by the State in accordance with 2.28.1 b), for a defined part of its air traffic control services in conjunction with schedules in compliance with the prescriptive limitation regulations established by the State in accordance with 2.28.1 a) for the remainder of its air traffic control services.		
2.28.3	Where the air traffic services provider complies with prescriptive limitation regulations in the provision of part or all of its air traffic control services in accordance with 2.28.2 a), the State: a) shall require evidence that the limitations are not exceeded and that non-duty period requirements are met; b) shall require that the air traffic services provider familiarize its personnel with the principles of fatigue management and its policies with regard to fatigue management; c) shall establish a process to allow variations from the prescriptive limitation regulations to address any additional risks associated with sudden, unforeseen operational circumstances; and d) may approve variations to these regulations using an established process in order to address strategic operational needs in exceptional		Not proposed for transposition with Part-ATS. ATS.TR.315 Annex IV 'Part-ATS', Subpart B, Section 3 of the ATM/ANS Common Requirements Regulation stipulates ATS providers' requirements for the ATCO fatigue management, including policy and procedures.

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	circumstances, based on the air traffic services provider demonstrating that any associated risk is being managed to a level of safety equivalent to, or better than, that achieved through the prescriptive fatigue management regulations.		
	Note.— Complying with the prescriptive limitations regulations does not relieve the air traffic services provider of the responsibility to manage its risks, including fatigue-related risks, using its SMS in accordance with the provisions of Annex 19.		Not proposed for transposition with Part-ATS.
2.28.4	Where an air traffic services provider implements an FRMS to manage fatigue-related safety risks in the provision of part or all of its air traffic control services in accordance with 2.28.2 b), the State shall: a) require the air traffic services provider to have processes to integrate FRMS functions with its other safety management functions; and b) approve an FRMS, according to a documented process, that provides a level of safety acceptable to the State.		Not proposed for transposition with Part-ATS.
	Note.— Provisions on the protection of safety information, which support the continued availability of information required by an FRMS, are contained in Annex 19.		Not proposed for transposition with Part-ATS.
2.29	*Note.— Annex 19 includes the safety management provisions applicable to ATS providers. Further guidance is contained in the Safety Management Manual (SMM) (Doc 9859) and associated procedures are contained in the PANS-ATM (Doc 4444).*		Not proposed for transposition with Part-ATS, as considered covered by the ATM/ANS Common Requirements Regulation (Annex IV Subpart A Section 2).
2.29	Any significant safety-related change to the ATS system, including the implementation of a reduced separation minimum or a new procedure, shall only be effected after a safety assessment has demonstrated that an acceptable		Not proposed for transposition with Part-ATS, as considered covered by the ATM/ANS Common Requirements Regulation (Annex IV Subpart A Section 2).

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	level of safety will be met and users have been consulted. When appropriate, the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.		
	Note.— When, due to the nature of the change, the acceptable level of safety cannot be expressed in quantitative terms, the safety assessment may rely on operational judgement.		Not proposed for transposition with Part-ATS, as considered covered by the ATM/ANS Common Requirements Regulation (Annex IV Subpart A Section 2).
2.30.1 .	Common reference system Horizontal reference system World Geodetic System – 1984 (WGS-84) shall be used as the horizontal (geodetic) reference system for air navigation. Reported aeronautical geographical coordinates (indicating latitude and longitude) shall be expressed in terms of the WGS-84 geodetic reference datum.		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for transposition within Annex III of Regulation 2017/373 as ATM/ANS.OR.A.090 'Common reference systems for air navigation'.
	Note.— Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System — 1984 (WGS-84) Manual *(Doc 9674).*		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for transposition within Annex III of the ATM/ANS Common Requirements Regulation as ATM/ANS.OR.A.090 'Common reference systems for air navigation' by Opinion 02/2018.
2.30.2	Vertical reference system Mean sea level (MSL) datum, which gives the relationship of gravity-related height (elevation) to a surface known as the geoid, shall be used as the vertical reference system for air navigation.		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for transposition within Annex III of the ATM/ANS Common Requirements Regulation as ATM/ANS.OR.A.090 'Common reference systems for air navigation' by Opinion 02/2018.
	Note.— The geoid globally most closely approximates MSL. It is defined as the equipotential surface in the		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for

	gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents.		transposition within Annex III of the ATM/ANS Common Requirements Regulation as ATM/ANS.OR.A.090 'Common reference systems for air navigation' by Opinion 02/2018.
2.30.3.1	Temporal reference system The Gregorian calendar and Coordinated Universal Time (UTC) shall be used as the temporal reference systems for air navigation.		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for transposition within Annex III of the ATM/ANS Common Requirements Regulation as ATM/ANS.OR.A.090 'Common reference systems for air navigation' by Opinion 02/2018.
2.30.3.2	When a different temporal reference system is used, this shall be indicated in GEN 2.1.2 of Aeronautical Information Publication (AIP).		Not proposed for transposition with Part-ATS. The content of Section 2.30 is proposed for transposition within Annex III of the ATM/ANS Common Requirements Regulation as ATM/ANS.OR.A.090 'Common reference systems for air navigation' by Opinion 02/2018.
2.31.1	Language proficiency An air traffic services provider shall ensure that air traffic controllers speak and understand the language(s) used for radiotelephony communications as specified in Annex 1.		Not proposed for transposition with Part-ATS. It is covered by both Reg. 2015/340 and provision 'ATS.OR.215' Licensing and medical certification requirements for air traffic controllers' of the ATM/ANS Common Requirements Regulation.
2.31.2	Except when communications between air traffic control units are conducted in a mutually agreed language, the English language shall be used for such communications.	Applicability extended to all ATS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.120, as follows: **Except when communications between air traffic services units are conducted in a mutually agreed language, the English language shall be used for such communications.**
2.32	Contingency arrangements Air traffic services authorities shall develop and promulgate contingency plans for		The first sentence of the provision is transposed as ATM/ANS.OR.A.070 of the ATM/ANS Common Requirements Regulation.

	implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of such services. Such contingency plans shall be developed with the assistance of ICAO as necessary, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.		The second sentence is proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.135, as follows: **An air traffic services provider shall develop contingency plans as required in ATM/ANS.OR.A.070 in close coordination with the air traffic services providers responsible for the provision of services in adjacent portions of airspace and, as appropriate, with airspace users concerned**.
	Note 1.— Guidance material relating to the development, promulgation and implementation of contingency plans is contained in Attachment C. *Note 2.— Contingency plans may constitute a temporary deviation from the approved regional air navigation plans; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.*		Not proposed for transposition with Part-ATS.
2.33.1	Identification and delineation of prohibited, restricted and danger areas Each prohibited area, restricted area, or danger area established by a State shall, upon initial establishment, be given an identification and full details shall be promulgated.		Not proposed for transposition with Part-ATS.
	Note.— See Annex 15, Appendix 1, ENR 5.1.		Not proposed for transposition with Part-ATS.
2.33.2	The identification so assigned shall be used to identify the area in all subsequent notifications pertaining to that area.		Not proposed for transposition with Part-ATS.
2.33.3	The identification shall be composed of a group of letters and figures as follows: a) nationality letters for location indicators assigned to the State or territory which has		Not proposed for transposition with Part-ATS.

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	established the airspace; b) a letter P for prohibited area, R for restricted area and D for danger area as appropriate; and c) a number, unduplicated within the State or territory concerned.		
	Note.— Nationality letters are those contained in Location Indicators (Doc 7910).		Not proposed for transposition with Part-ATS.
2.33.4	To avoid confusion, identification numbers shall not be reused for a period of at least one year after cancellation of the area to which they refer.		Not proposed for transposition with Part-ATS.
2.33.5	*Recommendation.— When a prohibited, restricted or danger area is established, the area should be as small as practicable and be contained within simple geometrical limits, so as to permit ease of reference by all concerned.*		Not proposed for transposition with Part-ATS.
2.34	Instrument flight procedure design service States shall ensure that an instrument flight procedure design service is in place in accordance with Appendix 8.		Not proposed for transposition with Part-ATS.
3.1	CHAPTER 3. AIR TRAFFIC CONTROL SERVICE		
3.1	Application Air traffic control service shall be provided: a) to all IFR flights in airspace Classes A, B, C, D and E; b) to all VFR flights in airspace Classes B, C and D; c) to all special VFR flights; d) to all aerodrome traffic at controlled aerodromes.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.200, as follows: **Air traffic control service shall be provided:** **(a) to all IFR flights in airspace Classes A, B, C, D and E;** **(b) to all VFR flights in airspace Classes B, C and D;** **(c) to all special VFR flights;** **(d) to all aerodrome traffic at controlled aerodromes.** It is transposed also as SERA.8001.
	Provision of air traffic control service		Proposed for transposition within Annex IV

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3.2	The parts of air traffic control service described in 2.3.1 shall be provided by the various units as follows: a) Area control service: 1) by an area control centre; or 2) by the unit providing approach control service in a control zone or in a control area of limited extent which is designated primarily for the provision of approach control service and where no area control centre is established. b) Approach control service: 1) by an aerodrome control tower or area control centre when it is necessary or desirable to combine under the responsibility of one unit the functions of the approach control service with those of the aerodrome control service or the area control service; 2) by an approach control unit when it is necessary or desirable to establish a separate unit. c) Aerodrome control service: by an aerodrome control tower.		'Part-ATS' as ATS.TR.205, as follows: **The parts of air traffic control service described in ATS.TR.105(a) shall be provided by the various units as follows:** **(a) Area control service:** **(1) by an area control centre; or** **(2) by the unit providing approach control service in a control zone or in a control area of limited extent which is designated primarily for the provision of approach control service and where no area control centre is established.** **(b) Approach control service:** **(1) by an approach control unit when it is necessary or desirable to establish a separate unit; or** **(2) by an aerodrome control tower or area control centre when it is necessary or desirable to combine under the responsibility of one unit the functions of the approach control service with those of the aerodrome control service or the area control service.**

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			(c) **Aerodrome control service: by an aerodrome control tower.**
	Note.— The task of providing specified services on the apron, e.g. apron management service, may be assigned to an aerodrome control tower or to a separate unit.		Not proposed for transposition with Part-ATS.
3.3.1	Operation of air traffic control service In order to provide air traffic control service, an air traffic control unit shall: a) be provided with information on the intended movement of each aircraft, or variations therefrom, and with current information on the actual progress of each aircraft; b) determine from the information received, the relative positions of known aircraft to each other; c) issue clearances and information for the purpose of preventing collision between aircraft under its control and of expediting and maintaining an orderly flow of traffic; d) coordinate clearances as necessary with other units: 1) whenever an aircraft might otherwise conflict with traffic operated under the control of such other units; 2) before transferring control of an aircraft to such other units.	The term 'instructions' has been added to the standard in point c).	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.210(a), as follows: (a) **In order to provide air traffic control service, an air traffic control unit shall:** **(1) be provided with information on the intended movement of each aircraft, or variations therefrom, and with current information on the actual progress of each aircraft;** **(2) determine from the information received, the relative positions of known aircraft to each other;** **(3) issue clearances, instructions and/or information for the purpose of preventing collision between aircraft under its control and of expediting and maintaining an orderly flow of traffic;** **(4) coordinate clearances as necessary with other units:** **(i) whenever an aircraft might**

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			otherwise conflict with traffic operated under the control of such other units; **(ii) before transferring control of an aircraft to such other units.** It is transposed also as SERA.8005(a).
3.3.2	Information on aircraft movements, together with a record of air traffic control clearances issued to such aircraft, shall be so displayed as to permit ready analysis in order to maintain an efficient flow of air traffic with adequate separation between aircraft.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.145, as follows: **An air traffic services provider shall ensure that information on aircraft movements, together with a record of ATC clearances issued to such aircraft, are so displayed as to permit ready analysis in order to maintain an efficient flow of air traffic with adequate separation between aircraft.**
3.3.3	*Air traffic control units should be equipped with devices that record background communication and the aural environment at air traffic controller work stations, capable of retaining the information recorded during at least the last twenty-four hours of operation.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.460, as follows: **(a) Unless otherwise prescribed by the competent authority, air traffic services units shall be equipped with devices that record background communication and the aural environment at air traffic controller, or the flight information service officer, or the AFIS officer work stations, as applicable, capable of retaining the information recorded during at least the last 24 hours of**

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			operation. (b) **Such recordings shall only be used for the investigation of accidents and incidents which are subject to mandatory reporting.**
	Note.— Provisions related to the non-disclosure of recordings and transcripts of recordings from air traffic control units are contained in Annex 13, 5.12.		Not proposed for transposition with Part-ATS.
3.3.4	Clearances issued by air traffic control units shall provide separation: a) between all flights in airspace Classes A and B; b) between IFR flights in airspace Classes C, D and E; c) between IFR flights and VFR flights in airspace Class C; d) between IFR flights and special VFR flights; e) between special VFR flights when so prescribed by the appropriate ATS authority, except that, when requested by an aircraft and if so prescribed by the appropriate ATS authority for the cases listed under b) above in airspace Classes D and E, a flight may be cleared without separation being so provided in respect of a specific portion of the flight conducted in visual meteorological conditions.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.210(b), as follows: (b) **Clearances issued by air traffic control units shall provide separation:** **(1) between all flights in airspace Classes A and B;** **(2) between IFR flights in airspace Classes C, D and E;** **(3) between IFR flights and VFR flights in airspace Class C;** **(4) between IFR flights and special VFR flights;** **(5) between special VFR flights unless otherwise prescribed by the competent authority;** **except that, when requested by the pilot of an aircraft and agreed by the pilot of the other aircraft and if so prescribed by the competent authority for the cases listed under b) above in airspace Classes D and E, a flight may be**

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			cleared subject to maintaining own separation in respect of a specific portion of the flight below 3 050 m (10 000 ft) during climb or descent, during day in visual meteorological conditions. It is transposed also as SERA.8005(b).
3.3.5	Separation by an air traffic control unit shall be obtained by at least one of the following: a) vertical separation, obtained by assigning different levels selected from: 1) the appropriate table of cruising levels in Appendix 3 of Annex 2, or 2) a modified table of cruising levels, when so prescribed in accordance with Appendix 3 of Annex 2 for flight above FL 410, except that the correlation of levels to track as prescribed therein shall not apply whenever otherwise indicated in appropriate aeronautical information publications or air traffic control clearances; b) horizontal separation, obtained by providing: 1) longitudinal separation, by maintaining an interval between aircraft operating along the same, converging or reciprocal tracks, expressed in time or distance; or 2) lateral separation, by maintaining aircraft on different routes or in different geographical areas; c) composite separation, consisting of a	The SERA text includes textual modifications to adapt the provision to the EU regulatory context, and does not transpose point (c) of Chapter 3.3.5 addressing composite separation. Due to its relevance in the ATS context, it is proposed for transposition also as ATS.TR.210(c) with textual modifications which establish an exception with regard to the application in case of parallel and near-parallel runway operations, as well as to prevent the use of geometric height information for separation purposes. It is proposed to amend SERA.8005(c) accordingly.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.210(c), as follows: (c) **Except for cases of operations on parallel or near-parallel runways as in ATS.TR.255, or when a reduction in separation minima in the vicinity of aerodromes can be applied, separation by an air traffic control unit shall be obtained by at least one of the following:** **(1) vertical separation, obtained by assigning different levels selected from the table of cruising levels in Appendix 3 to the Annex to Implementing Regulation (EU) No 923/2012, except that the correlation of levels to track as prescribed therein shall not apply whenever otherwise indicated in appropriate aeronautical information publications or ATC clearances. The vertical separation minimum shall be a nominal 300 m (1 000 ft) up to and**

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	combination of vertical separation and one of the other forms of separation contained in b) above, using minima for each which may be lower than, but not less than half of, those used for each of the combined elements when applied individually. Composite separation shall only be applied on the basis of regional air navigation agreements.		**including FL 410 and a nominal 600 m (2 000 ft) above this level. Geometric height information shall not be used to establish vertical separation;** **(2) horizontal separation, obtained by providing:** **(i) longitudinal separation, by maintaining an interval between aircraft operating along the same, converging or reciprocal tracks, expressed in time or distance; or** **(ii) lateral separation, by maintaining aircraft on different routes or in different geographical areas.** It is transposed also as SERA.8005(c).
	Note.— Guidance material relating to the implementation of composite lateral/vertical separation is contained in the Air Traffic Services Planning Manual *(Doc 9426).*		Not proposed for transposition with Part-ATS.
3.3.5.1	For all airspace where a reduced vertical separation minimum of 300 m (1 000 ft) is applied between FL 290 and FL 410 inclusive, a programme shall be instituted, on a regional basis, for monitoring the height-keeping		Not proposed for transposition with Part-ATS.

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	performance of aircraft operating at these levels, in order to ensure that the continued application of this vertical separation minimum meets the safety objectives. The scope of regional monitoring programmes shall be adequate to conduct analyses of aircraft group performance and evaluate the stability of altimetry system error.		
	Note.— Guidance material relating to vertical separation and monitoring of height-keeping performance is contained in the Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive *(Doc 9574).*		Not proposed for transposition with Part-ATS.
3.3.5.2	Where RCP/RSP specifications are applied, programmes shall be instituted for monitoring the performance of the infrastructure and the participating aircraft against the appropriate RCP and/or RSP specifications, to ensure that operations in the applicable airspace continue to meet safety objectives. The scope of monitoring programmes shall be adequate to evaluate communication and/or surveillance performance, as applicable.		Not proposed for transposition with Part-ATS.
3.3.5.3	*Recommendation - Arrangements should be put into place, through inter-regional agreement, for the sharing between regions of data and/or information from monitoring programmes.*		Not proposed for transposition with Part-ATS.
	Note.— Guidance material relating to RCP and RSP specifications and monitoring of communication and surveillance performance is contained in the Performance-based Communication and Surveillance (PBCS)		Not proposed for transposition with Part-ATS.

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	Manual *(Doc 9869).*		
3.4.1	Separation minima The selection of separation minima for application within a given portion of airspace shall be as follows: a) the separation minima shall be selected from those prescribed by the provisions of the PANS-ATM and the Regional Supplementary Procedures as applicable under the prevailing circumstances except that, where types of aids are used or circumstances prevail which are not covered by current ICAO provisions, other separation minima shall be established as necessary by: 1) the appropriate ATS authority, following consultation with operators, for routes or portions of routes contained within the sovereign airspace of a State; 2) regional air navigation agreements for routes or portions of routes contained within airspace over the high seas or over areas of undetermined sovereignty.		The principle in the first sentence is proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.215(a), as follows: **(a) The selection of separation minima for application within a given portion of airspace shall be made by the air traffic services provider responsible for the provision of air traffic services and approved by the competent authority concerned.** It is transposed also as SERA.8010(a).
	Note.— Details of current separation minima prescribed by ICAO are contained in the PANS-ATM (Doc 4444) and Part 1 of the Regional Supplementary Procedures *(Doc 7030).*		Not proposed for transposition with Part-ATS.
	b) the selection of separation minima shall be made in consultation between the appropriate ATS authorities responsible for the provision of air traffic services in neighbouring airspace when: 1) traffic will pass from one into the other of the neighbouring airspaces;		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.215(b), as follows: (b) **For traffic that will pass from one into the other of neighbouring airspaces and for routes that are closer to the common boundary of the neighbouring airspaces**

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	2) routes are closer to the common boundary of the neighbouring airspaces than the separation minima applicable in the circumstances.		**than the separation minima applicable in the circumstances, the selection of separation minima shall be made in consultation between the air traffic services providers responsible for the provision of air traffic services in neighbouring airspace.** It is transposed also as SERA.8010(b).
	Note.— The purpose of this provision is to ensure, in the first case, compatibility on both sides of the line of transfer of traffic, and, in the other case, adequate separation between aircraft operating on both sides of the common boundary.		Not proposed for transposition with Part-ATS.
3.4.2	Details of the selected separation minima and of their areas of application shall be notified: a) to the ATS units concerned; and b) to pilots and operators through aeronautical information publications, where separation is based on the use by aircraft of specified navigation aids or specified navigation techniques.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.215(c), as follows: **(c) Details of the selected separation minima and of their areas of application shall be notified:** **(1) to the air traffic services units concerned; and** **(2) to pilots and aircraft operators through aeronautical information publications, where separation is based on the use by aircraft of specified navigation aids or specified navigation techniques.** It is transposed also as SERA.8010(c).
3.5.1	Responsibility for control of individual flights		Proposed for transposition within Annex IV

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	A controlled flight shall be under the control of only one air traffic control unit at any given time.		'Part-ATS' as ATS.TR.225(a), as follows: **(a) A controlled flight shall be under the control of only one air traffic control unit at any given time.**
3.5.2	Responsibility for control within a given block of airspace Responsibility for the control of all aircraft operating within a given block of airspace shall be vested in a single air traffic control unit. However, control of an aircraft or groups of aircraft may be delegated to other air traffic control units provided that coordination between all air traffic control units concerned is assured.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.225(b), as follows: **(b) Responsibility for the control of all aircraft operating within a given block of airspace shall be vested in a single air traffic control unit. However, control of an aircraft or groups of aircraft may be delegated to other air traffic control units provided that coordination between all air traffic control units concerned is assured.**
3.6.1.	Transfer of responsibility for control Place or time of transfer The responsibility for the control of an aircraft shall be transferred from one air traffic control unit to another as follows:		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(a) Place or time of transfer** **The responsibility for the control of an aircraft shall be transferred from one air traffic control unit to another as follows:**
3.6.1.1	Between two units providing area control service. The responsibility for the control of an aircraft shall be transferred from a unit providing area control service in a control area to the unit providing area control service in an adjacent control area at the time of crossing the		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(1) Between two units providing area control service** **The responsibility for the control**

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	common control area boundary as estimated by the area control centre having control of the aircraft or at such other point or time as has been agreed between the two units.		**of an aircraft shall be transferred from a unit providing area control service in a control area to the unit providing area control service in an adjacent control area at the time of crossing the common control area boundary as estimated by the area control centre having control of the aircraft or at such other point or time as has been agreed between the two units.**
3.6.1.2	Between a unit providing area control service and a unit providing approach control service. The responsibility for the control of an aircraft shall be transferred from a unit providing area control service to a unit providing approach control service, and vice versa, at a point or time agreed between the two units.	The modification of the original Annex 11 provision is introduced to cover also the case of transfer between two approach control units, and does not constitute a difference with ICAO SARP, but clarification to cover an existing gap.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(2) Between a unit providing area control service and a unit providing approach control service or between two units providing approach control service** **The responsibility for the control of an aircraft shall be transferred from one unit to another, and vice versa, at a point or time agreed between the two units.**
3.6.1.3.1	Between a unit providing approach control service and an aerodrome control tower Arriving aircraft. The responsibility for the		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(3) Between a unit providing**

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	control of an arriving aircraft shall be transferred from the unit providing approach control service to the aerodrome control tower, when the aircraft: a) is in the vicinity of the aerodrome, and: 1) it is considered that approach and landing will be completed in visual reference to the ground, or 2) it has reached uninterrupted visual meteorological conditions, or b) is at a prescribed point or level, as specified in letters of agreement or ATS unit instructions; or c) has landed.		**approach control service and an aerodrome control tower** **(i) Arriving aircraft — The responsibility for the control of an arriving aircraft shall be transferred from the unit providing approach control service to the aerodrome control tower when the aircraft:** **(A) is in the vicinity of the aerodrome, and:** **(a) it is considered that approach and landing will be completed in visual reference to the ground, or** **(b) it has reached uninterrupted VMC; or** **(B) is at a prescribed point or level; or** **(C) has landed,** **as specified in letters of**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			agreement and operation manuals, as appropriate.
	Note.— Even though there is an approach control unit, control of certain flights may be transferred directly from an area control centre to an aerodrome control tower and vice versa, by prior arrangement between the units concerned for the relevant part of approach control service to be provided by the area control centre or the aerodrome control tower, as applicable.		Proposed for transposition as GM2 ATS.TR.230(a)(3), as follows: **Even though there is an approach control unit, control of certain flights may be transferred directly from an ACC to an aerodrome control tower and vice versa, by prior arrangement between the units concerned for the relevant part of approach control service to be provided by the ACC or the aerodrome control tower, as applicable.**
3.6.1.3.2	Departing aircraft. The responsibility for control of a departing aircraft shall be transferred from the aerodrome control tower to the unit providing approach control service: a) when visual meteorological conditions prevail in the vicinity of the aerodrome: 1) prior to the time the aircraft leaves the vicinity of the aerodrome, or 2) prior to the aircraft entering instrument meteorological conditions, or 3) at a prescribed point or level, as specified in letters of agreement or ATS unit instructions; b) when instrument meteorological conditions prevail at the aerodrome: 1) immediately after the aircraft is airborne, or 2) at a prescribed point or level, as specified in letters of agreement or ATS unit instructions.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(ii) Departing aircraft — The responsibility for control of a departing aircraft shall be transferred from the aerodrome control tower to the unit providing approach control service:** **(A) when VMC prevail in the vicinity of the aerodrome:** **(a) prior to the time the aircraft leaves the vicinity of the**

			aerodrome, or **(b) prior to the aircraft entering instrument meteorological conditions (IMC), or** **(c) at a prescribed point or level,** **(B) when IMC prevail at the aerodrome:** **(a) immediately after the aircraft is airborne, or** **(b) at a prescribed point or level,** **as specified in letters of agreement and operation manuals, as appropriate.**
	Note.— See Note following 3.6.1.3.1.		Not proposed for transposition with Part-ATS.
3.6.1.4	Between control sectors/positions within the same air traffic control unit The responsibility for control of an aircraft shall		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(a), as follows: **(4) Between control sectors/positions within the same air traffic control**

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	be transferred from one control sector/position to another control sector/ position within the same air traffic control unit at a point, level or time, as specified in ATS unit instructions.		**unit** **The responsibility for control of an aircraft shall be transferred from one control sector/position to another control sector/position within the same air traffic control unit at a point, level or time, as specified in air traffic services unit instructions.**
3.6.2.1	Coordination of transfer Responsibility for control of an aircraft shall not be transferred from one air traffic control unit to another without the consent of the accepting control unit, which shall be obtained in accordance with 3.6.2.2, 3.6.2.2.1, 3.6.2.2.2 and 3.6.2.3.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(b) Coordination of transfer** (1) **Responsibility for control of an aircraft shall not be transferred from one air traffic control unit to another without the consent of the accepting control unit, which shall be obtained in accordance with points (b)(2), (b)(3), (b)(4) and (b)(5).**
3.6.2.2	The transferring control unit shall communicate to the accepting control unit the appropriate parts of the current flight plan and any control information pertinent to the transfer requested.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(2) The transferring control unit shall communicate to the accepting control unit the appropriate parts of the current flight plan and any control information pertinent to**

			the transfer requested.
3.6.2.2.1	Where transfer of control is to be effected using radar or ADS-B data, the control information pertinent to the transfer shall include information regarding the position and, if required, the track and speed of the aircraft, as observed by radar or ADS-B immediately prior to the transfer.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(3) Where transfer of control is to be effected using ATS surveillance systems, the control information pertinent to the transfer shall include information regarding the position and, if required, the track and speed of the aircraft, as observed by ATS surveillance systems immediately prior to the transfer.**
3.6.2.2.2	Where transfer of control is to be effected using ADS-C data, the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(4) Where transfer of control is to be effected using ADS-C data, the control information pertinent to the transfer shall include the four-dimensional position and other information as necessary.**
3.6.2.3	The accepting control unit shall: a) indicate its ability to accept control of the aircraft on the terms specified by the transferring control unit, unless by prior agreement between the two units concerned, the absence of any such indication is understood to signify acceptance of the terms specified, or indicate any necessary changes thereto; and b) specify any other information or clearance for		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(5) The accepting control unit shall:** **(i) indicate its ability to accept control of the aircraft on the terms specified by the transferring control unit, unless by prior agreement**

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	a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer.		**between the two units concerned the absence of any such indication is understood to signify acceptance of the terms specified, or indicate any necessary changes thereto; and** (ii) **specify any other information or clearance for a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer.**
3.6.2.4	The accepting control unit shall notify the transferring control unit when it has established two-way voice and/or data link communications with and assumed control of the aircraft concerned, unless otherwise specified by agreement between the two control units concerned.	It constitutes a Category B difference from the Standard in Section 3.6.2.4.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.230(b), as follows: **(6) Unless otherwise specified by agreement between the two control units concerned, the accepting control unit shall not notify the transferring control unit when it has established two-way voice and/or data link communications with and assumed control of the aircraft concerned.**
3.6.2.5	Applicable coordination procedures, including transfer of control points, shall be specified in letters of agreement and ATS unit instructions as appropriate.		Proposed for transposition within Annex IV 'Part-ATS' within ATS.TR.230(a), by referring to the need to establish coordination procedures and transfer of control points in letters of

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			agreements and operation manuals.
3.7	Air traffic control clearances Air traffic control clearances shall be based solely on the requirements for providing air traffic control service.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(a), as follows: **(a) ATC clearances shall be based solely on the requirements for providing air traffic control service.** It is transposed also as SERA.8015(a).
3.7.1.1	Contents of clearances An air traffic control clearance shall indicate: a) aircraft identification as shown in the flight plan; b) clearance limit; c) route of flight; d) level(s) of flight for the entire route or part thereof and changes of levels if required;		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(b), as follows: **(b) Contents of clearances** **An ATC clearance shall indicate:** **(1) aircraft identification as shown in the flight plan;** **(2) clearance limit;** **(3) route of flight;** **(i) The route of flight shall be detailed in each clearance when deemed necessary; and** **(ii) The phrase 'cleared flight planned route' shall not be used when granting a re-clearance.** **(4) level(s) of flight for the entire route or part thereof and changes of levels if required;** It is transposed also as SERA.8015(d).
	Note.— If the clearance for the levels covers only part of the route, it is important for the air traffic control unit to specify a point to which the part of the clearance regarding levels applies whenever necessary to ensure compliance with 3.6.5.2.2 a) of Annex 2.		Not proposed for transposition with Part-ATS.

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	e) any necessary instructions or information on other matters such as approach or departure manoeuvres, communications and the time of expiry of the clearance.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(b), as follows: **(5) any necessary instructions or information on other matters, such as such as ATFM departure slot if applicable, approach or departure manoeuvres, communications and the time of expiry of the clearance.** It is transposed also as SERA.8015(d).
	Note.— The time of expiry of the clearance indicates the time after which the clearance will be automatically cancelled if the flight has not been commenced.		Proposed for transposition as GM ATS.TR.235(b)(5), as follows: **The time of expiry of the clearance indicates the time after which the clearance will be automatically cancelled if the flight has not been commenced.** It is transposed also as GM1 SERA.8015(d)(5).
3.7.1.2	*Standard departure and arrival routes and associated procedures should be established when necessary to facilitate:* *a) the safe, orderly and expeditious flow of air traffic;* *b) the description of the route and procedure in air traffic control clearances.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(c), as follows: **(c) In order to facilitate the delivery of the elements in point (b), an air traffic services provider shall assess the necessity for establishing standard departure and arrival routes and associated procedures to facilitate the:** **(1) safe, orderly and expeditious flow of air traffic; and** **(2) description of the route and procedure in ATC clearances.**
	Note.— Material relating to the establishment of standard departure and arrival routes and associated procedures is contained in the Air Traffic Services Planning Manual *(Doc 9426). The design criteria are*		Proposed for transposition as GM ATS.TR.235(c), as follows: **Guidance related to the establishment of standard departure and arrival routes and**

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	contained in PANS-OPS, Volume II (Doc 8168).		**associated procedures is available in ICAO Doc 9426 'ATS Planning Manual' (Chapter 4, Appendix A).**
3.7.2.1	Clearances for transonic flight The air traffic control clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(d), as follows: **(d) Clearances for transonic flight** **(1) The ATC clearance relating to the transonic acceleration phase of a supersonic flight shall extend at least to the end of that phase.** It is transposed also as SERA.8015(c).
3.7.2.2	*The air traffic control clearance relating to the deceleration and descent of an aircraft from supersonic cruise to subsonic flight should provide for uninterrupted descent, at least during the transonic phase.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(d), as follows: **(2) The ATC clearance relating to the deceleration and descent of an aircraft from supersonic cruise to subsonic flight shall seek to provide for uninterrupted descent, at least during the transonic phase.** It is transposed also as SERA.8015(c).
3.7.3.1	Read-back of clearances and safety-related information The flight crew shall read back to the air traffic controller safety-related parts of ATC clearances and instructions which are transmitted by voice. The following items shall always be read back: a) ATC route clearances; b) clearances and instructions to enter, land on, take off from, hold short of, cross and backtrack on any runway; and		It is not proposed for transposition with Part-ATS, as its content is covered by the modified transposition of Section 3.7.3.1.2. It is transposed as SERA.8015(e).

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	c) runway-in-use, altimeter settings, SSR codes, level instructions, heading and speed instructions and, whether issued by the controller or contained in ATIS broadcasts, transition levels.		
3.7.3.1.1.	Other clearances or instructions, including conditional clearances, shall be read back or acknowledged in a manner to clearly indicate that they have been understood and will be complied with.		It is not proposed for transposition with Part-ATS, as its content is covered by the modified transposition of Section 3.7.3.1.2. It is transposed as SERA.8015(e).
3.7.3.1.2	The controller shall listen to the read-back to ascertain that the clearance or instruction has been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read-back.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(g)(1), as follows: **(g) Read-back of clearances and safety-related information** (1) **The air traffic controller shall listen to the read-back concerning safety-related parts of ATC clearances and instructions as defined in SERA.8015(e)(1) and (2) of Implementing Regulation (EU) No 923/2012, to ascertain that the clearance and/or instruction has been correctly acknowledged by the flight crew and shall take immediate action to correct any discrepancies revealed by the read-back.** It is transposed also as SERA.8015(e)(3).

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3.7.3.2	Unless specified by the appropriate ATS authority, voice read-back of CPDLC messages shall not be required.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(g)(2), as follows: **(2) Voice read-back of CPDLC messages shall not be required unless otherwise specified by the air traffic services provider.** It is transposed also as SERA.8015(e)(4).
	Note.— The procedures and provisions relating to the exchange and acknowledgement of CPDLC messages are contained in Annex 10, Volume II, and PANS-ATM, Chapter 14.		Not proposed for transposition with Part-ATS.
3.7.4	Coordination of clearances An air traffic control clearance shall be coordinated between air traffic control units to cover the entire route of an aircraft or a specified portion thereof as follows: 3.7.4.1 An aircraft shall be cleared for the entire route to the aerodrome of first intended landing: a) when it has been possible, prior to departure, to coordinate the clearance between all the units under whose control the aircraft will come; or b) when there is reasonable assurance that prior coordination will be effected between those units under whose control the aircraft will subsequently come.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(1), as follows: **(h) Coordination of clearances** **An ATC clearance shall be coordinated between air traffic control units to cover the entire route of an aircraft or a specified portion thereof as follows:** **(1) An aircraft shall be cleared for the entire route to the aerodrome of first intended landing:** **(i) when it has been possible, prior to departure, to coordinate the clearance between all the units under whose control the aircraft will come; or** **(ii) when there is reasonable assurance that prior coordination will be effected between those units under whose control the**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			aircraft will subsequently come. It is transposed also as SERA.8015(f)(1).
	Note.— Where a clearance is issued covering the initial part of the flight solely as a means of expediting departing traffic, the succeeding en-route clearance will be as specified above even though the aerodrome of first intended landing is under the jurisdiction of an area control centre other than the one issuing the en-route clearance.		Proposed for transposition as GM1 ATS.TR.235(h)(1), as follows: **Where a clearance is issued covering the initial part of the flight solely as a means of expediting departing traffic, the succeeding en-route clearance will be as specified in point (h)(1) of ATS.TR.235 even though the aerodrome of first intended landing is under the jurisdiction of an ACC other than the one issuing the en-route clearance.**
3.7.4.2	When coordination as in 3.7.4.1 has not been achieved or is not anticipated, the aircraft shall be cleared only to that point where coordination is reasonably assured; prior to reaching such point, or at such point, the aircraft shall receive further clearance, holding instructions being issued as appropriate.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(2), as follows: **(2) When coordination as in point (1) has not been achieved or is not anticipated, the aircraft shall be cleared only to that point where coordination is reasonably assured; prior to reaching such point, or at such point, the aircraft shall receive further clearance, holding instructions being issued as appropriate.** It is transposed also as SERA.8015(f)(3).
3.7.4.2.1	When prescribed by the appropriate ATS authority, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the transfer of control point.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(3), as follows: **(3) When prescribed by the air traffic services unit, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the**

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			transfer of control point. It is transposed also as SERA.8015(f)(4).
3.7.4.2.1.1	Aircraft shall maintain the necessary two-way communication with the current air traffic control unit whilst obtaining a downstream clearance.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(3)(i), as follows: **(i) Aircraft shall maintain the necessary two-way communication with the current air traffic control unit whilst obtaining a downstream clearance.** It is transposed also as SERA.8015(f)(4)(i).
3.7.4.2.1.2	A clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(3)(ii), as follows: **(ii) A clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot.** It is transposed also as SERA.8015(f)(4)(ii).
3.7.4.2.1.3	Unless coordinated, downstream clearances shall not affect the aircraft's original flight profile in any airspace, other than that of the air traffic control unit responsible for the delivery of the downstream clearance.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(3)(iii), as follows: **(iii) Unless coordinated, downstream clearances shall not affect the aircraft's original flight profile in any airspace, other than that of the air traffic control unit responsible for the delivery of the downstream clearance.**

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			It is transposed also as SERA.8015(f)(4)(iii).
	Note.— Requirements relating to the application of downstream clearance delivery service are specified in Annex 10, Volume II. Guidance material is contained in the Manual of Air Traffic Services Data Link Applications *(Doc 9694).*		Proposed for transposition as GM1 ATS.TR.315, as follows: **Guidance material relating to D-ATIS is contained in the ICAO Doc 9694 'Manual of Air Traffic Services Data Link Applications'**
3.7.4.2.1.4	*Where practicable, and where data link communications are used to facilitate down-stream clearance delivery, two-way voice communications between the pilot and the air traffic control unit providing the downstream clearance should be available.*		Proposed for transposition as GM1 ATS.TR.235(h)(2)(i), as follows: **Where practicable, and where data link communications are used to facilitate downstream clearance delivery, two-way voice communications between the pilot and the ATC unit providing the downstream clearance should be available.**
3.7.4.3	When an aircraft intends to depart from an aerodrome within a control area to enter another control area within a period of thirty minutes, or such other specific period of time as has been agreed between the area control centres concerned, coordination with the subsequent area control centre shall be effected prior to issuance of the departure clearance.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(4), as follows: **(4) When an aircraft intends to depart from an aerodrome within a control area to enter another control area within a period of 30 minutes, or such other specific period of time as has been agreed between the area control centres concerned, coordination with the subsequent area control centre shall be effected prior to issuance of the departure clearance.** It is transposed also as SERA.8015(f)(5).
3.7.4.4	When an aircraft intends to leave a control area for flight outside controlled airspace, and will subsequently re-enter the same or another control area, a clearance from point of departure to the aerodrome of first intended landing may		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.235(h)(5), as follows: **(5) When an aircraft intends to leave a control area for flight outside controlled airspace, and will**

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	be issued. Such clearance or revisions thereto shall apply only to those portions of the flight conducted within controlled airspace.		**subsequently re-enter the same or another control area, a clearance from the point of departure to the aerodrome of first intended landing may be issued. Such clearance or revisions thereto shall apply only to those portions of the flight conducted within controlled airspace.** It is transposed also as SERA.8015(f)(6).
3.7.5.1	Air traffic flow management Air traffic flow management (ATFM) shall be implemented for airspace where air traffic demand at times exceeds, or is expected to exceed, the declared capacity of the air traffic control services concerned.		Not proposed for transposition with Part-ATS. Regulation (EU) No 255/2010, as amended by Regulation (EU) 2016/1006, includes this Chapter in the list of ICAO provisions relevant for ATFM. It is not to be transposed as ATS requirement.
	Note.— The capacity of the air traffic control services concerned will normally be declared by the appropriate ATS authority.		Not proposed for transposition with Part-ATS.
3.7.5.2	*ATFM should be implemented on the basis of regional air navigation agreements or, if appropriate, through multilateral agreements. Such agreements should make provision for common procedures and common methods of capacity determination.*		Not proposed for transposition with Part-ATS.
3.7.5.3	When it becomes apparent to an ATC unit that traffic additional to that already accepted cannot be accommodated within a given period of time at a particular location or in a particular area, or can only be accommodated at a given rate, that unit shall so advise the ATFM unit, when such is established, as well as, when appropriate, ATS units concerned. Flight crews of aircraft		Not proposed for transposition with Part-ATS.

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	destined to the location or area in question and operators concerned shall also be advised of the delays expected or the restrictions that will be applied.		
	Note.— Operators concerned will normally be advised, in advance where possible, of restrictions imposed by the air traffic flow management unit when such is established.		Not proposed for transposition with Part-ATS.
3.8.1	Control of persons and vehicles at aerodromes The movement of persons or vehicles including towed aircraft on the manoeuvring area of an aerodrome shall be controlled by the aerodrome control tower as necessary to avoid hazard to them or to aircraft landing, taxiing or taking off.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.240(a), as follows: **(a) The movement of persons or vehicles, including towed aircraft, on the manoeuvring area of an aerodrome shall be controlled by the aerodrome control tower as necessary to avoid hazard to them or to aircraft landing, taxiing or taking off.** It is transposed also as SERA.3210(d)(4)(i).
3.8.2	In conditions where low visibility procedures are in operation: a) persons and vehicles operating on the manoeuvring area of an aerodrome shall be restricted to the essential minimum, and particular regard shall be given to the requirements to protect the ILS/MLS sensitive area(s) when Category II or Category III precision instrument operations are in progress; b) subject to the provisions in 3.8.3, the minimum separation between vehicles and taxiing aircraft shall be as prescribed by the appropriate ATS authority taking into account	The amendment introduced to point (b)(2) constitutes a difference with the transposed ICAO Standard.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.240(b), as follows: **(b) In conditions where low-visibility procedures are in operation:** **(1) persons and vehicles operating on the manoeuvring area of an aerodrome shall be restricted to the essential minimum, and particular regard shall be given to the requirements to protect the critical and sensitive area(s) of radio navigation aids;** **(2) subject to the provisions in point**

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	the aids available; c) when mixed ILS and MLS Category II or Category III precision instrument operations are taking place to the same runway continuously, the more restrictive ILS or MLS critical and sensitive areas shall be protected.		**(c), the method(s) to separate vehicles and taxiing aircraft shall be as specified by the air traffic services provider and approved by the competent authority taking into account the aids available;** **(3) when mixed ILS and MLS Category II or Category III precision instrument operations are taking place to the same runway continuously, the more restrictive ILS or MLS critical and sensitive areas shall be protected.** It is transposed also as SERA.3210(d)(4)(ii).
	Note.— The period of application of low visibility procedures is determined in accordance with ATS unit instructions. Guidance on low visibility operations on an aerodrome is contained in the Manual of Surface Movement Guidance and Control Systems (SMGCS) *(Doc 9476).*		Not proposed for transposition with Part-ATS.
3.8.3	Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.240(c), as follows: **(c) Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.** It is transposed also as SERA.3210(d)(4)(iii).
3.8.4	Subject to the provisions in 3.8.3, vehicles on the manoeuvring area shall be required to comply with the following rules: a) vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing;		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.240(d), as follows: **(d) Subject to the provisions in point (c), vehicles on the manoeuvring area shall be required to comply with the following rules:**

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	b) vehicles shall give way to other vehicles towing aircraft; c) vehicles shall give way to other vehicles in accordance with ATS unit instructions; d) notwithstanding the provisions of a), b) and c), vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.		**(1) vehicles and vehicles towing aircraft shall give way to aircraft which are landing, taking off or taxiing;** **(2) vehicles shall give way to other vehicles towing aircraft;** **(3) vehicles shall give way to other vehicles in accordance with air traffic services unit instructions;** **(4) notwithstanding the provisions of points (1), (2) and (3), vehicles and vehicles towing aircraft shall comply with instructions issued by the aerodrome control tower.** It is transposed also as SERA.3210(d)(4)(iv).
3.9	*Provision of radar and ADS-B* *Radar and ADS-B ground systems should provide for the display of safety-related alerts and warnings, including conflict alert, conflict prediction, minimum safe altitude warning and unintentionally duplicated SSR codes.*		Proposed for transposition as GM1 ATS.TR.155(c)(9), as follows: **ATS surveillance service should provide for the display of safety-related alerts and warnings, including conflict alert, conflict prediction, minimum safe altitude warning and unintentionally duplicated SSR codes and aircraft identification.**
3.10	Use of surface movement radar (SMR) *In the absence of visual observation of all or part of the manoeuvring area or to supplement visual observation, surface movements radar (SMR) provided in accordance with the provisions of Annex 14 Volume I, or other suitable surveillance equipment, should be utilized to:* *a) monitor the movements of aircraft and vehicles on the manoeuvring area;*	The transposition of the provision is proposed with textual modifications for adaptation to the EU regulatory context, and in particular to ensure alignment with Regulation (EU) No 139/2014, as regards reference to A-SMGCS. Provisions for use of A-SMGCS are included in Section 6.5.6 of ICAO Doc 7030 EUR.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.245, as follows: **Where deemed necessary, in the absence of visual observation of all or part of the manoeuvring area, or to supplement visual observation, advanced surface movement guidance and control systems (A-SMGCS), or other suitable surveillance equipment, shall be utilised by the air traffic services unit in order to:**

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	b) provide directional information to pilots and vehicle drivers as necessary; and *c) provide advice and assistance for the safe and efficient movement of aircraft and vehicles on the manoeuvring area.*		**(a) monitor the movements of aircraft and vehicles on the manoeuvring area;** **(b) provide directional information to pilots and vehicle drivers as necessary; and** **(c) provide advice and assistance for the safe and efficient movement of aircraft and vehicles on the manoeuvring area.**
	Note.— See the Manual of Surface Movement Guidance and Control Systems (SMGCS) *(Doc 9476), the* Advanced-Surface Movement Guidance and Control Systems (A-SMGCS) Manual *(Doc 9830) and the* Air Traffic Services Planning Manual *(Doc 9426) for guidance on the use of SMR.*		Not proposed for transposition with Part-ATS.
4.1.1	CHAPTER 4. FLIGHT INFORMATION SERVICE Application Flight information service shall be provided to all aircraft which are likely to be affected by the information and which are: a) provided with air traffic control service; or b) otherwise known to the relevant air traffic services units.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.300(a), as follows: **(a) Flight information service shall be provided by the appropriate air traffic services units to all aircraft which are likely to be affected by the information and which are:** **(1) provided with air traffic control service; or** **(2) otherwise known to the relevant air traffic services units.** It is transposed also as SERA.9001(a).
	Note.— Flight information service does not relieve the pilot-in-command of an aircraft of any responsibilities and the pilot-in-command has to make the final decision regarding any suggested alteration of flight plan.		Not proposed for transposition with Part-ATS. It is transposed as SERA.9001(b).
4.1.2	Where air traffic services units provide both flight information service and air traffic control service, the provision of air traffic control service shall have precedence over the provision of flight information service whenever the		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.300(b), as follows: **(b) Where air traffic services units provide both flight information service and air traffic control service, the**

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	provision of air traffic control service so requires.		**provision of air traffic control service shall have precedence over the provision of flight information service whenever the provision of air traffic control service so requires.** It is transposed as SERA.9001(c).
	Note.— It is recognized that in certain circumstances aircraft on final approach, landing, take-off and climb may require to receive without delay essential information other than that pertaining to the provision of air traffic control service.		Proposed for transposition as GM1 ATS.TR.300(b), as follows: **It is recognised that in certain circumstances an aircraft on final approach, landing, take-off and climb may require to receive without delay essential information other than that pertaining to the provision of ATC service.**
4.2.1	Scope of flight information service Flight information service shall include the provision of pertinent: a) SIGMET and AIRMET information; b) information concerning pre-eruption volcanic activity, volcanic eruptions and volcanic ash clouds; c) information concerning the release into the atmosphere of radioactive materials or toxic chemicals; d) information on changes in the availability of radio navigation services; e) information on changes in condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by snow, ice or significant depth of water; f) information on unmanned free balloons;		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.305(a), as follows: **(a) Flight information service shall include the provision of pertinent:** **(1) SIGMET and AIRMET information;** **(2) information concerning pre-eruption volcanic activity, volcanic eruptions and volcanic ash clouds;** **(3) information concerning the release into the atmosphere of radioactive materials or toxic chemicals;** **(4) information on changes in the availability of radio navigation services;** **(5) information on changes in the**

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	and of any other information likely to affect safety.		**condition of aerodromes and associated facilities, including information on the state of the aerodrome movement areas when they are affected by snow, ice or significant depth of water;** **(6) information on unmanned free balloons;** **(7) information on abnormal aircraft configuration and condition; and** **(8) any other information likely to affect safety.** It is transposed as SERA.9005(a).
4.2.2	Flight information service provided to flights shall include, in addition to that outlined in 4.2.1, the provision of information concerning: a) weather conditions reported or forecast at departure, destination and alternate aerodromes; b) collision hazards, to aircraft operating in airspace Classes C, D, E, F and G; c) for flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, etc., of surface vessels in the area.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.305(b), as follows: **(b) Flight information service provided to flights shall include, in addition to that outlined in point (a), the provision of information concerning:** **(1) weather conditions reported or forecast at departure, destination and alternate aerodromes;** **(2) collision hazards, to aircraft operating in airspace Classes C, D, E, F and G;** **(3) for flight over water areas, in so far as practicable and when requested by a pilot, any available information such as radio call sign, position, true track, speed, etc., of surface vessels in the area;** **(4) messages, including clearances, received from other air traffic**

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			services units to relay to aircraft. It is transposed as SERA.9005(b).
	Note 1.— The information in b), including only known aircraft the presence of which might constitute a collision hazard to the aircraft informed, will sometimes be incomplete and air traffic services cannot assume responsibility for its issuance at all times or for its accuracy.		Proposed for transposition as GM to ATS.TR.305(b)(2) and (c)(1), as follows: **Information relating to collision hazards includes only known activities that constitute risks to the aircraft concerned. The availability of such information to ATS may sometimes be incomplete (e.g. limitations in radar or radio coverage, optional radio contact by pilots, limitations in the accuracy of reported information by pilots, or unconfirmed level of information) and, therefore, ATS cannot assume responsibility for its issuance at all times or for its accuracy.** It is transposed as GM1 SERA.9005(b)(2).
	Note 2.— When there is a need to supplement collision hazard information provided in compliance with b), or in case of temporary disruption of flight information service, traffic information broadcasts by aircraft may be applied in designated airspaces. Guidance on traffic information broadcasts by aircraft and related operating procedures is contained in Attachment B.		Not proposed for transposition with Part-ATS.
4.2.3	*ATS units should transmit, as soon as practicable, special air-reports to other aircraft concerned, to the associated meteorological office, and to other ATS units concerned. Transmissions to aircraft should be continued for a period to be determined by agreement between the meteorological and air traffic services authorities concerned.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.305(d), as follows: **(d) ATS units shall transmit, as soon as practicable, special and non-routine air-reports to:** **(1) other aircraft concerned;** **(2) the associated meteorological watch office in accordance with Appendix 5 to Commission Implementing Regulation (EU) No 923/2012; and**

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			(3) other ATS units concerned. Transmissions to aircraft shall be repeated at a frequency and continued for a period of time which shall be determined by the ATS unit concerned. It is transposed also as SERA.12020 (a);(b).
4.2.4	Flight information service provided to VFR flights shall include, in addition to that outlined in 4.2.1, the provision of available information concerning traffic and weather conditions along the route of flight that are likely to make operation under the visual flight rules impracticable.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.305(e), as follows: **(e) Flight information service provided to VFR flights shall include, in addition to that outlined in point (a), the provision of available information concerning traffic and weather conditions along the route of flight that are likely to make operation under the visual flight rules impracticable.** It is transposed also as SERA.9005(c).
4.3.1.1	Operational flight information service broadcasts Application The meteorological information and operational information concerning radio navigation services and aerodromes included in the flight information service shall, whenever available, be provided in an operationally integrated form.		Not proposed for transposition with Part-ATS.
4.3.1.2	*Where integrated operational flight information messages are to be transmitted to aircraft, they should be transmitted with the content and, where specified, in the sequence indicated, for the various phases of flight.*		Not proposed for transposition with Part-ATS.
4.3.1.3	*Operational flight information service broadcasts, when provided, should consist of messages containing integrated information*		Not proposed for transposition with Part-ATS.

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	regarding selected operational and meteorological elements appropriate to the various phases of flight. These broadcasts should be of three major types, i.e. HF, VHF and ATIS.		
4.3.1.4	Use of the OFIS messages in directed request/reply transmissions When requested by the pilot, the applicable OFIS message(s) shall be transmitted by the appropriate ATS unit		Not proposed for transposition with Part-ATS.
4.3.2.1	HF operational flight information service (OFIS) broadcasts *HF operational flight information service (OFIS) broadcasts should be provided when it has been determined by regional air navigation agreements that a requirement exists.*		Not proposed for transposition with Part-ATS.
4.3.2.2	*Whenever such broadcasts are provided:* *a) the information should be in accordance with 4.3.2.5, as applicable, subject to regional air navigation agreements;* *b) the aerodromes for which reports and forecasts are to be included should be as determined by regional air navigation agreements;* *c) the time-sequencing of stations participating in the broadcast should be as determined by regional air navigation agreements;* *d) the HF OFIS broadcast message should take into consideration human performance. The broadcast message should not exceed the length of time allocated for it by regional air navigation agreements, care being taken that*		Not proposed for transposition with Part-ATS.

	the readability is not impaired by the speed of the transmission; *Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).* *e) each aerodrome message should be identified by the name of the aerodrome to which the information applies;* *f) when information has not been received in time for a broadcast, the latest available information should be included together with the time of that observation;* *g) the full broadcast message should be repeated if this is feasible within the remainder of the time allotted to the broadcasting station*		
	h) the broadcast information should be updated immediately a significant change occurs; and *i) the HF OFIS message should be prepared and disseminated by the most appropriate unit(s) as designated by each State.*		Not proposed for transposition with Part-ATS.
4.3.2.3	*Pending the development and adoption of a more suitable form of speech for universal use in aeronautical radiotelephony communications, HF OFIS broadcasts concerning aerodromes designated for use by international air services should be available in the English language.*		Not proposed for transposition with Part-ATS.
4.3.2.4	*Where HF OFIS broadcasts are available in more than one language, a discrete channel should be used for each language.*		Not proposed for transposition with Part-ATS.
4.3.2.5	*HF operational flight information service broadcast messages should contain the following information in the sequence indicated or as determined by regional air navigation*		Not proposed for transposition with Part-ATS.

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	agreements: *a) En-route weather information* *Information on significant en-route weather phenomena should be in the form of available SIGMET as prescribed in Annex 3.* *b)Aerodrome information including:* *1) name of aerodrome;* *2) time of observation;* *3) essential operational information;* *4) surface wind direction and speed; if appropriate, maximum wind speed;* **5) visibility and, when applicable, runway visual range (RVR);* **6) present weather;* **7) cloud below 1 500 m (5000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available; and* **8) aerodrome forecast.*		
4.3.3.1	*VHF operational flight information service (OFIS) broadcasts* *VHF operational flight information service broadcasts should be provided as determined by regional air navigation agreements.*		Not proposed for transposition with Part-ATS.
4.3.3.2	*Whenever such broadcasts are provided:* *a) the aerodromes for which reports and forecasts are to be included should be as determined by regional air navigation agreements;* *b) each aerodrome message should be identified by the name of the aerodrome to which the information applies;*		Not proposed for transposition with Part-ATS.

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	c) when information has not been received in time for a broadcast, the latest available information should be included together with the time of that observation; *d) the broadcasts should be continuous and repetitive;* *e) The VHF OFIS broadcast message should take into consideration human performance. The broadcast message should, whenever practicable, not exceed five minutes, care being taken that the readability is not impaired by the speed of the transmission;* *Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).* *f) the broadcast message should be updated on a scheduled basis as determined by regional air navigation agreements. In addition it should be expeditiously updated immediately a significant change occurs; and* *g) the VHF OFIS message should be prepared and disseminated by the most appropriate unit(s) as designated by each State.*		
4.3.3.3	*Pending the development and adoption of a more suitable form of speech for universal use in aeronautical radiotelephony communications, VHF OFIS broadcasts concerning aerodromes designated for use by international air services should be available in the English language.*		Not proposed for transposition with Part-ATS.
4.3.3.4	*Where VHF OFIS broadcasts are available in more than one language, a discrete channel should be used for each language.*		Not proposed for transposition with Part-ATS.
4.3.3.5	*VHF operational flight information service*		Not proposed for transposition with Part-ATS.

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	broadcast messages should contain the following information in the sequence indicated: *a) name of aerodrome;* *b) time of observation;* *c) landing runway;* *d) significant runway surface conditions and, if appropriate, braking action;* *e) changes in the operational state of the radio navigation services, if appropriate;* *f) holding delay, if appropriate;* *g) surface wind direction and speed; if appropriate, maximum wind speed;* **h) visibility and, when applicable, runway visual range (RVR);* **i) present weather;* **j) cloud below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility, when available;* *†k) air temperature;* *†l) dew point temperature;* *†m) QNH altimeter setting;* *n) supplementary information on recent weather of operational significance and, where necessary, wind shear;* *o) trend forecast, when available; and* *p) notice of current SIGMET messages*		
4.3.4.1	Voice-automatic terminal information service (Voice-ATIS) broadcasts Voice-automatic terminal information service (Voice-ATIS) broadcasts shall be provided at aerodromes where there is a requirement to reduce the communication load on the ATS		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(a), as follows: **(a) Voice-automatic terminal information service (Voice-ATIS) broadcasts shall be provided at aerodromes where there is a requirement to reduce the**

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	VHF air-ground communication channels. When provided, they shall comprise: a) one broadcast serving arriving aircraft; or b) one broadcast serving departing aircraft; or c) one broadcast serving both arriving and departing aircraft; or d) two broadcasts serving arriving and departing aircraft respectively at those aerodromes where the length of a broadcast serving both arriving and departing aircraft would be excessively long.		**communication load on the ATS VHF air–ground communication channels. When provided, they shall comprise:** **(1) one broadcast serving arriving aircraft; or** **(2) one broadcast serving departing aircraft; or** **(3) one broadcast serving both arriving and departing aircraft; or** **(4) two broadcasts serving arriving and departing aircraft respectively at those aerodromes where the length of a broadcast serving both arriving and departing aircraft would be excessively long.**
4.3.4.2	A discrete VHF frequency shall, whenever practicable, be used for Voice-ATIS broadcasts. If a discrete frequency is not available, the transmission may be made on the voice channel(s) of the most appropriate terminal navigation aid(s), preferably a VOR, provided the range and readability are adequate and the identification of the navigation aid is sequenced with the broadcast so that the latter is not obliterated.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(b), as follows: **(b) A discrete VHF frequency shall, whenever practicable, be used for Voice-ATIS broadcasts. If a discrete frequency is not available, the transmission may be made on the voice channel(s) of the most appropriate terminal navigation aid(s), preferably a VOR, provided the range and readability are adequate and the identification of the navigation aid is sequenced with the broadcast so that the latter is not obliterated.**

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4.3.4.3	Voice-ATIS broadcasts shall not be transmitted on the voice channel of an ILS.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(c), as follows: **(c) Voice-ATIS broadcasts shall not be transmitted on the voice channel of an ILS.**
4.3.4.4	Whenever Voice-ATIS is provided, the broadcast shall be continuous and repetitive.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(d), as follows: **(d) Whenever Voice-ATIS is provided, the broadcast shall be continuous and repetitive.**
4.3.4.5	The information contained in the current broadcast shall immediately be made known to the ATS unit(s) concerned with the provision to aircraft of information relating to approach, landing and takeoff, whenever the message has not been prepared by that (those) unit(s).		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(e), as follows: **(e) The information contained in the current broadcast shall immediately be made known to the air traffic services unit(s) concerned with the provision to aircraft of information relating to approach, landing and take-off, whenever the message has not been prepared by that (those) unit(s).**
	Note.— The requirements for the provision of ATIS that applies to both Voice-ATIS and D-ATIS are contained in 4.3.6 below.		Not proposed for transposition with Part-ATS.
4.3.4.6	Voice-ATIS broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a minimum.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.310(f), as follows: **(f) Voice-ATIS broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a**

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			minimum.
4.3.4.7	*Where Voice-ATIS broadcasts are available in more than one language, a discrete channel should be used for each language.*		Proposed for transposition as GM1 ATS.TR.310(f), as follows: **Where Voice-ATIS broadcasts are available in more than one language, a discrete channel should be used for each language.**
4.3.4.8	*The Voice-ATIS broadcast message should, whenever practicable, not exceed 30 seconds, care being taken that the readability of the ATIS message is not impaired by the speed of the transmission or by the identification signal of a navigation aid used for transmission of ATIS. The ATIS broadcast message should take into consideration human performance.*		Proposed for transposition as GM1 ATS.TR.310, as follows: **The Voice-ATIS broadcast message should, whenever practicable, not exceed 30 seconds, care being taken that the readability of the ATIS message is not impaired by the speed of the transmission or by the identification signal of a navigation aid used for transmission of ATIS. The ATIS broadcast message should take into consideration human performance. Additional guidance on human performance may be found in ICAO Doc 9683 'Human Factors Training Manual'.**
	Note.— Guidance material on human performance can be found in the Human Factors Training Manual *(Doc 9683).*		Proposed for transposition within GM1 ATS.TR.310.
4.3.5.1	Data link-automatic terminal information service (D-ATIS) Where a D-ATIS supplements the existing availability of Voice-ATIS, the information shall be identical in both content and format to the applicable Voice-ATIS broadcast.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.315(a), as follows: **(a) Where a D-ATIS supplements the existing availability of Voice-ATIS, the information shall be identical in both content and format to the applicable Voice-ATIS broadcast. Where real-time meteorological information is included but the data remains within the**
4.3.5.1.1	Where real-time meteorological information is included but the data remains within the parameters of the significant change criteria, the content, for the purpose of maintaining the same		

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	designator, shall be considered identical.		**parameters of the significant change criteria established in MET.TR.200(e) and (f), the content, for the purpose of maintaining the same designator, shall be considered identical.**
	Note.— Significant change criteria are specified in 2.3.2 of Appendix 3 to Annex 3.		Not proposed for transposition with Part-ATS.
4.3.5.2	Where a D-ATIS supplements the existing availability of Voice-ATIS and the ATIS requires updating, Voice-ATIS and D-ATIS shall be updated simultaneously.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.315(b), as follows: **(b) Where a D-ATIS supplements the existing availability of Voice-ATIS and the ATIS requires updating, Voice-ATIS and D-ATIS shall be updated simultaneously.**
	Note.— Guidance material relating to D-ATIS is contained in the Manual of Air Traffic Services Data Link Applications *(Doc 9694). The technical requirements for the D-ATIS application are contained in Annex 10, Volume III, Part I, Chapter 3*		Proposed for transposition as GM1 ATS.TR.315 as follows: **Guidance material relating to D-ATIS is contained in the ICAO Doc 9694 'Manual of Air Traffic Services Data Link Applications'.**
4.3.6.1	Automatic terminal information service (voice and/or data link) Whenever Voice-ATIS and/or D-ATIS is provided: a) the information communicated shall relate to a single aerodrome; b) the information communicated shall be updated immediately a significant change occurs; c) the preparation and dissemination of the ATIS message shall be the responsibility of the		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.320(a), as follows: **(a) Whenever Voice-ATIS and/or D-ATIS is provided:** **(1) the information communicated shall relate to a single aerodrome;** **(2) the information communicated shall be updated immediately a significant change occurs;** **(3) the preparation and dissemination of the ATIS**

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	air traffic services; d) individual ATIS messages shall be identified by a designator in the form of a letter of the ICAO spelling alphabet. Designators assigned to consecutive ATIS messages shall be in alphabetical order; e) aircraft shall acknowledge receipt of the information upon establishing communication with the ATS unit providing approach control service or the aerodrome control tower, as appropriate; f) the appropriate ATS unit shall, when replying to the message in e) above or, in the case of arriving aircraft, at such other time as may be prescribed by the appropriate ATS authority, provide the aircraft with the current altimeter setting; and g) the meteorological information shall be extracted from the local meteorological routine or special report.		**message shall be the responsibility of the air traffic services provider;** **(4) individual ATIS messages shall be identified by a designator in the form of a letter of the spelling alphabet in accordance with SERA.14020 of Implementing Regulation (EU) No 923/2012. Designators assigned to consecutive ATIS messages shall be in alphabetical order;** **(5) aircraft shall acknowledge receipt of the information upon establishing communication with the ATS unit providing approach control service or the aerodrome control tower or the AFIS unit, as appropriate;** **(6) the appropriate air traffic services unit shall, when replying to the message in (5) or, in the case of arriving aircraft, at such other time as may be prescribed by the competent authority, provide the aircraft with the current altimeter setting; and** **(7) the meteorological information shall be extracted from the local routine or local special report.** The introductory sentence, points (e) and (f) of this provision are transposed also as SERA.9010 (a)(2).

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	Note.— In accordance with Sections 4.1 and 4.3 of Appendix 3 to Annex 3, the surface wind direction and speed and runway visual range (RVR) are to be averaged over 2 minutes and 1 minute, respectively; and the wind information is to refer to conditions along the runway for departing aircraft and to conditions at the touchdown zone for arriving aircraft. A template for the local meteorological report, including the corresponding ranges and resolutions of each element, are in Appendix 3 to Annex 3. Additional criteria for the local meteorological report are contained in Chapter 4 of, and in Attachment D to, Annex 3.		Not proposed for transposition with Part-ATS.
4.3.6.2	When rapidly changing meteorological conditions make it inadvisable to include a weather report in the ATIS, the ATIS messages shall indicate that the relevant weather information will be given on initial contact with the appropriate ATS unit.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.320(b), as follows: **(b) When rapidly changing meteorological conditions make it inadvisable to include the meteorological information as in point (a)(7) in the ATIS, the ATIS messages shall indicate that the relevant meteorological information will be given on initial contact with the appropriate air traffic services unit.**
4.3.6.3 .	Information contained in a current ATIS, the receipt of which has been acknowledged by the aircraft concerned, need not be included in a directed transmission to the aircraft, with the exception of the altimeter setting, which shall be provided in accordance with 4.3.6.1 f).		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.320(c), as follows: **(c) Information contained in a current ATIS, the receipt of which has been acknowledged by the aircraft concerned, need not be included in a directed transmission to the aircraft, with the exception of the altimeter setting, which shall be provided in accordance with point (a).** It is transposed also as SERA.9010 (a)(3).
4.3.6.4	If an aircraft acknowledges receipt of an ATIS		Proposed for transposition within Annex IV

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	that is no longer current, any element of information that needs updating shall be transmitted to the aircraft without delay.		'Part-ATS' as ATS.TR.320(d), as follows: **(d) If an aircraft acknowledges receipt of an ATIS that is no longer current, the air traffic services unit shall without delay:** **(1) communicate to the aircraft any element of information which has to be updated; or** **(2) instruct the aircraft to obtain the current ATIS information.** It is transposed also as SERA.9010 (a)(4).
4.3.6.5	*Contents of ATIS should be kept as brief as possible. Information additional to that specified in 4.3.7 to 4.3.9, for example information already available in aeronautical information publications (AIPs) and NOTAM, should only be included when justified in exceptional circumstances.*		Proposed for transposition as points (b) and (c) of GM1 ATS.TR.320, as follows: **(b) Contents of ATIS messages should be kept as brief as possible.** **(c) Information additional to that specified in SERA.9010 of Regulation (EU) No 923/2012; for example information already available in AIPs and NOTAM, should only be included when justified in exceptional circumstances.**
4.3.7	ATIS for arriving and departing aircraft ATIS messages containing both arrival and departure information shall contain the following elements of information in the order listed: a) name of aerodrome; b) arrival and/or departure indicator; c) contract type, if communication is via D-ATIS; d) designator;		Proposed point (a) of GM1 ATS.TR.320 is introduced establishing a cross reference with SERA.9010(b) where the elements of information concerned are transposed. It is transposed also as SERA.9010(b).

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	e) time of observation, if appropriate; f) type of approach(es) to be expected; g) the runway(s) in use; status of arresting system constituting a potential hazard, if any; h) significant runway surface conditions and, if appropriate, braking action; i) holding delay, if appropriate; j) transition level, if applicable; k) other essential operational information;		
	l) surface wind direction (in degrees magnetic) and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; *m) visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers;; *n) present weather; *o) cloud below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available; p) air temperature; q) dew point temperature; r) altimeter setting(s); s) any available information on significant meteorological phenomena in the approach and		

	climbout areas including wind shear, and information on recent weather of operational significance; t) trend forecast, when available; and u) specific ATIS instructions.		
4.3.8	ATIS for arriving aircraft ATIS messages containing arrival information only shall contain the following elements of information in the order listed: a) name of aerodrome; b) arrival indicator; c) contract type, if communication is via D-ATIS; d) designator; e) time of observation, if appropriate; f) type of approach(es) to be expected; g) main landing runway(s); status of arresting system constituting a potential hazard, if any; h) significant runway surface conditions and, if appropriate, braking action; i) holding delay, if appropriate; j) transition level, if applicable;		Proposed point (a) of GM1 ATS.TR.320 is introduced establishing a cross reference with SERA.9010(c) where the elements of information concerned are transposed. It is transposed also as SERA.9010(c).
	k) other essential operational information; l) surface wind direction (in degrees magnetic) and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; *m) visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the		

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	sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; *n) present weather; *o) cloud below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available; p) air temperature; †q) dew point temperature; r) altimeter setting(s); s) any available information on significant meteorological phenomena in the approach area including wind shear, and information on recent weather of operational significance; t) trend forecast, when available; and u) specific ATIS instructions.		
4.3.9	ATIS for departing aircraft ATIS messages containing departure information only shall contain the following elements of information in the order listed: a) name of aerodrome; b) departure indicator; c) contract type, if communication is via D-ATIS; d) designator; e) time of observation, if appropriate; f) runway(s) to be used for takeoff; status of arresting system constituting a potential hazard, if any; g) significant surface conditions of runway(s) to		Proposed point (a) of GM1 ATS.TR.320 is introduced establishing a cross reference with SERA.9010(d) where the elements of information concerned are transposed. It is transposed also as SERA.9010(d).

	be used for takeoff and, if appropriate, braking action; h) departure delay, if appropriate; i) transition level, if applicable; j) other essential operational information; k) surface wind direction (in degrees magnetic) and speed, including significant variations and, if surface wind sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; *l) visibility and, when applicable, RVR and, if visibility/RVR sensors related specifically to the sections of runway(s) in use are available and the information is required by operators, the indication of the runway and the section of the runway to which the information refers; *m) present weather;		
	*n) cloud below 1 500 m (5 000 ft) or below the highest minimum sector altitude, whichever is greater; cumulonimbus; if the sky is obscured, vertical visibility when available; o) air temperature; †p) dew point temperature; q) altimeter setting(s); r) any available information on significant meteorological phenomena in the climbout area including wind shear; s) trend forecast, when available; and t) specific ATIS instructions.		
4.4.1 .	VOLMET broadcasts and DVOLMET service		Proposed for transposition within Annex IV ‘Part-ATS’ as ATS.TR.325, as follows:

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	HF and/or VHF VOLMET broadcasts and/or D-VOLMET service should be provided when it has been determined by regional air navigation agreements that a requirement exists.		**When so prescribed by the competent authority, HF and/or VHF VOLMET broadcasts and/or D-VOLMET service shall be provided using standard radiotelephony phraseologies.**
	Note.— Annex 3, 11.5 and 11.6 provide details of VOLMET broadcasts and D-VOLMET service.		Not proposed for transposition with Part-ATS.
4.4.2	*VOLMET broadcasts should use standard radiotelephony phraseologies.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.325.
	Note.— Guidance on standard radiotelephony phraseologies to be used in VOLMET broadcasts is given in the Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services *Doc 9377), Appendix 1.*		Proposed for transposition as GM1 ATS.TR.325, as follows: **Guidance on standard radiotelephony phraseologies to be used in VOLMET broadcasts is available in ICAO Doc 9377 'Manual on Coordination between Air Traffic Services, Aeronautical information Services and Aeronautical Meteorological Services', Appendix 1.**
5.1.1	CHAPTER 5. ALERTING SERVICE Application Alerting service shall be provided: a) for all aircraft provided with air traffic control service; b) in so far as practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services; and c) to any aircraft known or believed to be the subject of unlawful interference.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.400(a), as follows: **(a) Alerting service shall be provided by the air traffic services units:** **(1) for all aircraft provided with air traffic control service;** **(2) in so far as practicable, to all other aircraft having filed a flight plan or otherwise known to the air traffic services ; and** **(3) to any aircraft known or believed**

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			to be the subject of unlawful interference. It is transposed also as SERA.10001(a).
5.1.2	Flight information centres or area control centres shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the flight information region or control area concerned and for forwarding such information to the appropriate rescue coordination centre.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.400(b), as follows: **(b) Flight information centres or area control centres shall serve as the central point for collecting all information relevant to a state of emergency of an aircraft operating within the flight information region or control area concerned and for forwarding such information to the appropriate rescue coordination centre.**
5.1.3	In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower or approach control unit, such unit shall notify immediately the flight information centre or area control centre responsible which shall in turn notify the rescue coordination centre, except that notification of the area control centre, flight information centre, or rescue coordination centre shall not be required when the nature of the emergency is such that the notification would be superfluous.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.400(c), as follows: **(c) In the event of a state of emergency arising to an aircraft while it is under the control of an aerodrome control tower or approach control unit or in contact with an AFIS unit, such unit shall notify immediately the flight information centre or area control centre responsible which shall in turn notify the rescue coordination centre, except that notification of the area control centre, flight information centre, or rescue coordination centre shall not**

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			be required if the nature of the emergency is such that the notification would be superfluous.
5.1.3.1	Nevertheless, whenever the urgency of the situation so requires, the aerodrome control tower or approach control unit responsible shall first alert and take other necessary steps to set in motion all appropriate local rescue and emergency organizations which can give the immediate assistance required.		Proposed for transposition Annex IV 'Part-ATS' as ATS.TR.400(d), integrated with the content of the first sentence of Section 7.1.2.1 of PANS-ATM, as follows: **(d) Nevertheless, whenever:** **(1) an aircraft accident has occurred on or in the vicinity of the aerodrome; or** **(2) information is received that the safety of an aircraft which is or will come under the jurisdiction of the aerodrome control tower or of the AFIS unit may have or has been impaired; or** **(3) requested by the flight crew; or** **(4) when otherwise deemed necessary or desirable or the urgency of the situation so requires,** **the aerodrome control tower or approach control unit responsible or the relevant AFIS unit shall first alert and take other necessary steps to set in motion all appropriate local rescue and**

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
			emergency organisations which can give the immediate assistance required, in accordance with local instructions.
5.2.1	Notification of rescue coordination centres Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in 5.5.1, notify rescue coordination centres immediately when an aircraft is considered to be in a state of emergency in accordance with the following: a) Uncertainty phase when: 1) no communication has been received from an aircraft within a period of thirty minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier, or when 2) an aircraft fails to arrive within thirty minutes of the estimated time of arrival last notified to or estimated by air traffic services units, whichever is the later, except when no doubt exists as to the safety of the aircraft and its occupants. b) Alert phase when: 1) following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft, or when		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.405(a), as follows: **(a) Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in ATS.TR.420(a), notify rescue coordination centres immediately when an aircraft is considered to be in a state of emergency in accordance with the following:** **(1) Uncertainty phase when:** **(i) no communication has been received from an aircraft within a period of 30 minutes after the time a communication should have been received, or from the time an unsuccessful attempt to establish communication with such aircraft was first made, whichever is the earlier; or** **ii) an aircraft fails to arrive within 30 minutes of the estimated time of arrival last notified to or estimated by air traffic services units, whichever is the later,**

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	2) an aircraft has been cleared to land and fails to land within five minutes of the estimated time of landing and communication has not been re-established with the aircraft, or when 3) information has been received which indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely, except when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants, or when 4) an aircraft is known or believed to be the subject of unlawful interference. c) Distress phase when: 1) following the alert phase, further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress, or when 2) the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety, or when 3) information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely, or when 4) information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing, except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and		**except when no doubt exists as to the safety of the aircraft and its occupants.** **(2) Alert phase when:** **(i) following the uncertainty phase, subsequent attempts to establish communication with the aircraft or inquiries to other relevant sources have failed to reveal any news of the aircraft; or** **(ii) an aircraft has been cleared to land and fails to land within 5 minutes of the estimated time of landing and communication has not been re-established with the aircraft; or** **(iii) at AFIS aerodromes, under circumstances as prescribed by the competent authority; or** **(iv) information has been received which indicates that the operating efficiency of the aircraft has been impaired, but not to the extent that a forced landing is likely,** **except when evidence exists that would allay apprehension as to the safety of the aircraft and its occupants; or**

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	imminent danger and do not require immediate assistance.		**(v) an aircraft is known or believed to be the subject of unlawful interference.** **(3) Distress phase when:** **(i) following the alert phase, further unsuccessful attempts to establish communication with the aircraft and more widespread unsuccessful inquiries point to the probability that the aircraft is in distress; or** **(ii) the fuel on board is considered to be exhausted, or to be insufficient to enable the aircraft to reach safety; or** **(iii) information is received which indicates that the operating efficiency of the aircraft has been impaired to the extent that a forced landing is likely; or** **(iv) information is received or it is reasonably certain that the aircraft is about to make or has made a forced landing,** **except when there is reasonable certainty that the aircraft and its occupants are not threatened by grave and imminent danger and do not**

			require immediate assistance.
5.2.2	The notification shall contain such of the following information as is available in the order listed: a) INCERFA, ALERFA or DETRESFA, as appropriate to the phase of the emergency; b) agency and person calling; c) nature of the emergency; d) significant information from the flight plan; e) unit which made last contact, time and means used; f) last position report and how determined; g) colour and distinctive marks of aircraft; h) dangerous goods carried as cargo; i) any action taken by reporting office; and j) other pertinent remarks.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.405(b), as follows: **(b) The notification shall contain such of the following information as is available in the order listed:** **(1) INCERFA, ALERFA or DETRESFA, as appropriate to the phase of the emergency;** **(2) agency and person calling;** **(3) nature of the emergency;** **(4) significant information from the flight plan;** **(5) unit which made last contact, time and means used;** **(6) last position report and how determined;** **(7) colour and distinctive marks of aircraft;** **(8) dangerous goods carried as cargo;** **(9) any action taken by reporting office; and** **(10) other pertinent remarks.**
5.2.2.1	*Such part of the information specified in 5.2.2, which is not available at the time notification is made to a rescue coordination centre, should be sought by an air traffic services unit prior to the declaration of a distress phase, if there is reasonable certainty that this phase will eventuate.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.405(c), as follows: **(c) Such part of the information specified in point (b), which is not available at the time notification is made to a rescue coordination centre, shall be sought by an air traffic services unit prior to the declaration of a distress phase where time permits and where there is**

			reasonable certainty that this phase will eventuate .
5.2.3	Further to the notification in 5.2.1, the rescue coordination centre shall, without delay, be furnished with: a) any useful additional information, especially on the development of the state of emergency through subsequent phases; or b) information that the emergency situation no longer exists.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.405(d), as follows: **(d) Further to the notification in point(a), air traffic services units shall, without delay, furnish the rescue coordination centre with:** **(1) any useful additional information, especially on the development of the state of emergency through subsequent phases; or** **(2) information that the emergency situation no longer exists.**
	Note.— The cancellation of action initiated by the rescue coordination centre is the responsibility of that centre.		Proposed for transposition as GM1 ATS.TR.405(d), as follows: **The cancellation of action(s) initiated by the rescue coordination centre is the responsibility of that centre.**
5.3	Use of communication facilities Air traffic services units shall, as necessary, use all available communication facilities to endeavour to establish and maintain communication with an aircraft in a state of emergency, and to request news of the aircraft.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.410, as follows: **Air traffic services units shall, as necessary, use all available communication facilities to endeavour to establish and maintain communication with an aircraft in a state of emergency, and to request news of the aircraft.**
5.4	Plotting aircraft in a state of emergency When a state of emergency is considered to exist, the flight of the aircraft involved shall be plotted on a chart in order to determine the probable future position of the aircraft and its maximum range of action from its last known	With the technology widely implemented in the EU and with the applicable requirements for the surveillance data storage, it is considered that the requirement in the second sentence of the Standard is superfluous and obsolete. The missed transposition of the second sentence of this Standard	The first sentence is proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.415, as follows: **When a state of emergency is considered to exist, the air traffic services unit(s) aware of the emergency shall plot the flight of the**

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	position. The flights of other aircraft known to be operating in the vicinity of the aircraft involved shall also be plotted in order to determine their probable future positions and maximum endurance.	formally constitutes a Category C difference.	**aircraft involved on a chart or other appropriate tool in order to determine the probable future position of the aircraft and its maximum range of action from its last known position.**
5.5.1	Information to the operator When an area control or a flight information centre decides that an aircraft is in the uncertainty or the alert phase, it shall, when practicable, advise the operator prior to notifying the rescue coordination centre.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.420(a), as follows: **(a) When an area control centre or a flight information centre decides that an aircraft is in the uncertainty or the alert phase, it shall, when practicable, advise the aircraft operator prior to notify the rescue coordination centre.**
	Note.— If an aircraft is in the distress phase, the rescue coordination centre has to be notified immediately in accordance with 5.2.1.		Not proposed for transposition with Part-ATS. The transposition of Section 5.2.1 covers the immediate notification in case of distress phase.
5.5.2	All information notified to the rescue coordination centre by an area control or flight information centre shall, whenever practicable, also be communicated, without delay, to the operator.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.420(b), as follows: **(b) Whenever practicable, an area control centre or flight information centre shall, without delay, communicate all information notified to the rescue coordination centre to the aircraft operator.**
5.6.1	Information to aircraft operating in the vicinity of an aircraft in a state of emergency When it has been established by an air traffic services unit that an aircraft is in a state of emergency, other aircraft known to be in the		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.425(a), as follows: **(a) When it has been established by an air traffic services unit that an aircraft is in a state of emergency, other aircraft**

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	vicinity of the aircraft involved shall, except as provided in 5.6.2, be informed of the nature of the emergency as soon as practicable.		**known to be in the vicinity of the aircraft involved shall, except as provided in point (b), be informed of the nature of the emergency as soon as practicable.** It is transposed also as SERA.10005(a).
5.6.2	When an air traffic services unit knows or believes that an aircraft is being subjected to unlawful interference, no reference shall be made in ATS air-ground communications to the nature of the emergency unless it has first been referred to in communications from the aircraft involved and it is certain that such reference will not aggravate the situation.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.TR.425(b), as follows: **(b) When an air traffic services unit knows or believes that an aircraft is being subjected to unlawful interference, no reference shall be made in ATS air–ground communications to the nature of the emergency unless it has first been referred to in communications from the aircraft involved and it is certain that such reference will not aggravate the situation.** It is transposed also as SERA.10005(b).
6	AIR TRAFFIC SERVICES REQUIREMENTS FOR COMMUNICATIONS		
6.1	Aeronautical mobile service (air-ground communications)		
6.1.1.1	General Radiotelephony and/or data link shall be used in air-ground communications for air traffic services purposes.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.400(a), as follows: **(a) An air traffic services provider shall use voice and/or data link in air-ground communications for air traffic services purposes.**
	Note.— Requirements for ATS units to be provided with and to maintain guard on the emergency channel 121.5 MHz are specified in Annex 10, Volumes II and V.		Proposed for transposition as GM1 ATS.OR.405, as follows;

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			Requirements for air traffic services units to maintain continuous guard on the emergency channel 121.5 MHz are specified in SERA.14080(b) of Regulation (EU) No 923/2012.
6.1.1.2	Where an RCP specification has been prescribed by States for performance-based communication, ATS units shall, in addition to the requirements specified in 6.1.1.1, be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP specification(s)		Not proposed for transposition with Part-ATS.
	Note.— Information on the performance-based communication and surveillance (PBCS) concept and guidance material on its implementation are contained in the Performance-based Communication and Surveillance (PBCS) Manual (Doc 9869).		Not proposed for transposition with Part-ATS.
6.1.1.3	When direct pilot-controller two-way radiotelephony or data link communications are used for the provision of air traffic control service, recording facilities shall be provided on all such air-ground communication channels.	Applicability extended to all FIS/AFIS units, subject to the exemption granted by the competent authority.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.400(b), as follows: **(a) When direct pilot-controller two-way voice or data link communications are used for the provision of air traffic control service, recording facilities shall be provided on all such air-ground communication channels.** With the newly introduced point (c), it is proposed to extend the applicability of the requirement in point (b) to FIS/AFIS provision, subject to determination of the competent authority, as follows: **(c) When direct air–ground two-way voice or data link communications are used**

			for the provision of flight information service, including AFIS, recording facilities on all such air–ground communication channels shall be provided by the air traffic services provider, unless otherwise prescribed by the competent authority.
	Note.— Requirements for retention of all automatic recordings of communications in ATC are specified in Annex 10, Volume II, 3.5.1.5.		Not proposed for transposition with Part-ATS.
6.1.1.4	Recordings of communications channels as required in paragraph 6.1.1.3 shall be retained for a period of at least thirty days.	Applicability extended to all FIS/AFIS units, subject to the exemption granted by the competent authority	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.455(a), as follows: **(a) An air traffic services provider shall retain for a period of at least 30 days the following:** **(1) recordings of communications channels, as specified in ATS.OR.400(c) and (d);** Proposed transposition of Annex 10 Volume II Chapter 3.5.1.5 'Records of communications' within Annex IV 'Part-ATS' as ATS.OR.455(b), as follows: **(b) When the recordings and logs listed in point (a) are pertinent to accident and incident investigations, they shall be retained for longer periods until it is evident that they will no longer be required.**
6.1.2.1	For flight information service Air-ground communication facilities shall enable two-way communications to take place between a unit providing flight information	The proposed provision, which constitutes a Category C difference, includes the text 'to the practicable extent and as approved by the Competent Authority', as ensuring air-ground communication anywhere within the FIR is	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.410(a), as follows: **(a) An air traffic services provider shall ensure, to the practicable extent and as approved by the competent authority,**

	service and appropriately equipped aircraft flying anywhere within the flight information region.	considered unrealistic and not achievable, in particular over mountainous areas. This is further demonstrated by the differences filed by some EASA Member States (e.g. Austria and Norway).	**that air-ground communication facilities enable two-way communications to take place between a flight information centre and appropriately equipped aircraft flying anywhere within the flight information region.** Point (b) proposes to extend the requirement in point (a) to AFIS, under the conditions specified in the Recommendation in Annex 11 Chapter 6.1.2.2. **(b) An air traffic services provider shall ensure that air-ground communication facilities enable direct, rapid, continuous and static-free two-way communications to take place between an AFIS unit and appropriately equipped aircraft operating within the airspace defined as in ATS.TR.110(a)(3).**
6.1.2.2	*Whenever practicable, air-ground communication facilities for flight information service should permit direct, rapid, continuous and static-free two-way communications.*		Proposed for transposition as GM1 ATS.OR.410(a), as follows: **Whenever practicable, air–ground communication facilities for FIS should permit direct, rapid, continuous and static-free two-way communications.**
6.1.3.1	For area control service Air-ground communication facilities shall enable two-way communications to take place between a unit providing area control service and appropriately equipped aircraft flying		Proposed for transposition within Annex IV ‘Part-ATS’ as ATS.OR.415, as follows: **An air traffic services provider shall ensure that air-ground communication facilities**

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	anywhere within the control area(s).		**enable two-way communications to take place between a unit providing area control service and appropriately equipped aircraft flying anywhere within the control area(s).**
6.1.3.2.	*Whenever practicable, air-ground communication facilities for area control service should permit direct, rapid, continuous and static-free two-way communications.*		Proposed for transposition as AMC1 ATS.OR.415, as follows: **Whenever practicable, air–ground communication facilities for area control service should permit direct, rapid, continuous and static-free two-way communications.**
6.1.3.3	*Where air-ground voice communication channels are used for area control service and are worked by air-ground communicators, suitable arrangements should be made to permit direct pilot-controller voice communications, as and when required.*		Proposed for transposition as GM1 ATS.OR.415, as follows: **Where air–ground voice communication channels are used for area control service and are worked by air-ground communicators, suitable arrangements should be made to permit direct pilot–controller voice communications, as and when required.**
6.1.4.1	For approach control service Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between the unit providing approach control service and appropriately equipped aircraft under its control.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.420(a), as follows: **(a) An air traffic services provider shall ensure that air-ground communication facilities enable direct, rapid, continuous and static-free two-way communications to take place between the unit providing approach control service and appropriately equipped aircraft under its control.**
6.1.4.2	Where the unit providing approach control		Proposed for transposition within Annex IV

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.	service functions as a separate unit, air-ground communications shall be conducted over communication channels provided for its exclusive use.		'Part-ATS' as ATS.OR.420(b), as follows: **(b) Where the unit providing approach control service functions as a separate unit, air-ground communications shall be conducted over communication channels provided for its exclusive use.**
6.1.5.1	For aerodrome control service Air-ground communication facilities shall enable direct, rapid, continuous and static-free two-way communications to take place between an aerodrome control tower and appropriately equipped aircraft operating at any distance within 45 km (25 NM) of the aerodrome concerned.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.425(a), as follows: **(a) An air traffic services provider shall ensure that air-ground communication facilities enable direct, rapid, continuous and static-free two-way communications to take place between an aerodrome control tower and appropriately equipped aircraft operating at any distance within 45 km (25 NM) of the aerodrome concerned.**
6.1.5.2 .	*Where conditions warrant, separate communication channels should be provided for the control of traffic operating on the manoeuvring area.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.425(b), as follows: **(b) Where conditions warrant, an air traffic services provider shall provide separate communication channels for the control of traffic operating on the manoeuvring area.**
6.2	Aeronautical fixed service (ground-ground communication)		
6.2.1.1	Aeronautical fixed service (ground-ground communications)		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.430(a), as follows:

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	General Direct-speech and/or data link communications shall be used in ground-ground communications for air traffic services purposes.		**(a) An air traffic services provider shall ensure that direct-speech and/or data link communications are used in ground-ground communications for air traffic services purposes.**
	Note 1.— Indication by time of the speed with which the communication should be established is provided as a guide to communication services, particularly to determine the types of communication channels required, e.g. that "instantaneous" is intended to refer to communications which effectively provide for immediate access between controllers; "fifteen seconds" to accept switchboard operation and "five minutes" to mean methods involving retransmission.		Proposed for transposition as GM1 ATS.OR.430(a), as follows: **Indication by time of the speed with which the communication should be established is provided as a guide to communication services, particularly to determine the types of communication channels required, e.g. that 'instantaneous' is intended to refer to communications which effectively provide for immediate access between ATCOs; '15 seconds' to accept switchboard operation and '5 minutes' to mean methods involving retransmission.**
	Note 2.— Requirements for retention of all automatic recordings of communications in ATC are specified in Annex 10, Volume II, 3.5.1.5.		Not proposed for transposition with Part-ATS. The content of Annex 10 Volume II Section 3.5.1.5 is proposed for transposition in the context of ATS.OR.455.
6.2.2	Communications within a flight information region		
6.2.2.1	Communications between air traffic services units		
6.2.2.1.1	A flight information centre shall have facilities for communications with the following units		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(a)(1), as follows:

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	providing a service within its area of responsibility: a) the area control centre, unless collocated; b) approach control units; c) aerodrome control towers.		**(a) Communications between air traffic services units** **(1) An air traffic services provider shall ensure that a flight information centre has facilities for communications with the following units providing a service within its area of responsibility:** **(i) the area control centre;** **(ii) approach control units;** **(iii) aerodrome control towers; and** **(iv) AFIS units.**
6.2.2.1.2	An area control centre, in addition to being connected to the flight information centre as prescribed in 6.2.2.1.1, shall have facilities for communications with the following units providing a service within its area of responsibility: a) approach control units; b) aerodrome control towers; c) air traffic services reporting offices, when separately established.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(a)(2), as follows: **(2) An air traffic services provider shall ensure that an area control centre, in addition to being connected with the flight information centre as prescribed in point (1), has facilities for communications with the following units providing a service within its area of responsibility:** **(i) approach control units;**

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			(ii) aerodrome control towers; **(iii) AFIS units; and** (iv) **air traffic services reporting offices, when separately established.**
6.2.2.1.3	An approach control unit, in addition to being connected to the flight information centre and the area control centre as prescribed in 6.2.2.1.1 and 6.2.2.1.2, shall have facilities for communications with the associated aerodrome control tower(s) and, when separately established, the associated air traffic services reporting office(s).		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(a)(3), as follows: **(3) An air traffic services provider shall ensure that an approach control unit, in addition to being connected with the flight information centre and the area control centre as prescribed in points (1) and (2), has facilities for communications with:** **(i) the associated aerodrome control tower(s);** **(ii) with relevant AFIS unit(s); and** (iii) **the associated air traffic services reporting office(s), when separately established.**
6.2.2.1.4	An aerodrome control tower, in addition to being connected to the flight information centre, the area control centre and the approach control unit as prescribed in 6.2.2.1.1, 6.2.2.1.2 and		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(a)(4), as follows: **(4) An air traffic services provider shall ensure that an aerodrome**

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	6.2.2.1.3, shall have facilities for communications with the associated air traffic services reporting office, when separately established.		**control tower or an AFIS unit, in addition to being connected with the flight information centre, the area control centre and the approach control unit as prescribed in points (1), (2) and (3), has facilities for communications with the associated air traffic services reporting office, when separately established.**
6.2.2.2.1	Communications between air traffic services units and other units A flight information centre and an area control centre shall have facilities for communications with the following units providing a service within their respective area of responsibility: a) appropriate military units; b) the meteorological office serving the centre; c) the aeronautical telecommunications station serving the centre; d) appropriate operator's offices; e) the rescue coordination centre or, in the absence of such centre, any other appropriate emergency service; f) the international NOTAM office serving the centre.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(b)(1), as follows: **(b) Communications between air traffic services units and other units** **(1) An air traffic services provider shall ensure that a flight information centre and an area control centre have facilities for communications with the following units providing a service within their respective area of responsibility:** **(i) appropriate military units;** **(ii) the meteorological services provider(s) serving the centre;**

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			(iii) the aeronautical telecommunication station serving the centre; **(iv) appropriate aircraft operators' offices;** **(v) the rescue coordination centre or, in the absence of such centre, any other appropriate emergency service; and** (vi) **the international NOTAM office serving the centre.**
6.2.2.2.2	An approach control unit and an aerodrome control tower shall have facilities for communications with the following units providing a service within their respective area of responsibility: a) appropriate military units; b) rescue and emergency services (including ambulance, fire, etc.); c) the meteorological office serving the unit concerned; d) the aeronautical telecommunications station serving the unit concerned; e) the unit providing apron management service, when separately established.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(b)(2), as follows: **(2) An air traffic services provider shall ensure that an approach control unit, an aerodrome control tower and an AFIS unit have facilities for communications with the following units providing a service within their respective area of responsibility:** **(i) appropriate military units;** **(ii) rescue and emergency services (including ambulance, firefighting**

			etc.); **(iii) the meteorological services provider serving the unit concerned;** **(iv) the aeronautical telecommunication station serving the unit concerned; and** (v) **the unit providing apron management service, when separately established.**
6.2.2.2.3	The communication facilities required under 6.2.2.2.1 a) and 6.2.2.2.2 a) shall include provisions for rapid and reliable communications between the air traffic services unit concerned and the military unit(s) responsible for control of interception operations within the area of responsibility of the air traffic services unit.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(b)(3), as follows: **(3) The communication facilities required under points (b)(1)(i) and (b)(2)(i) shall include provisions for rapid and reliable communications between the air traffic services unit concerned and the military unit(s) responsible for control of interception operations within the area of responsibility of the air traffic services unit, in order to fulfil obligations established in Section 11 of Implementing Regulation (EU) No 923/2012.**

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6.2.2.3.1	Description of communication facilities The communication facilities required under 6.2.2.1, 6.2.2.2.1 a) and 6.2.2.2.2 a), b) and c) shall include provisions for: a) communications by direct speech alone, or in combination with data link communications, whereby for the purpose of transfer of control using radar or ADS-B, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds; and b) printed communications, when a written record is required; the message transit time for such communications being no longer than five minutes.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(1), as follows: **(c) Description of communication facilities** **(1) The communication facilities required under point (a), point (b)(1)(i) and points (b)(2)(i), (b)(2)(ii) and (b)(2)(iii) shall include provisions for:** **(i) communications by direct speech alone, or in combination with data link communications, whereby for the purpose of transfer of control using radar or ADS-B, the communications can be established instantaneously, and for other purposes, the communications can normally be established within 15 seconds; and** **(ii) printed communications, when a written record is required; the message transit time for such communications being no longer than 5 minutes.**

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6.2.2.3.2	*In all cases not covered by 6.2.2.3.1, the communication facilities should include provisions for:* *a) communications by direct speech alone, or in combination with data link communications, whereby the communications can normally be established within fifteen seconds; and* *b) printed communications, when a written record is required; the message transit time for such communications being no longer than five minutes.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(2), as follows: **(2) In all cases not covered by point (c)(1), the communication facilities shall include provisions for:** **(i) communications by direct speech alone, or in combination with data link communications, whereby the communications can normally be established within 15 seconds; and** (ii) **printed communications, when a written record is required; the message transit time for such communications being no longer than 5 minutes.**
6.2.2.3.3	In all cases where automatic transfer of data to and/or from air traffic services computers is required, suitable facilities for automatic recording shall be provided.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(3), as follows: **(3) In all cases where automatic transfer of data to and/or from air traffic services computers is required, suitable facilities for automatic recording shall be provided.**

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6.2.2.3.4	*The communication facilities required in accordance with 6.2.2.1 and 6.2.2.2 should be supplemented, as and where necessary, by facilities for other forms of visual or audio communications, for example, closed circuit television or separate information processing systems.*		Proposed for transposition as GM1 ATS.OR.435(a);(b), as follows: **The communication facilities in points (a) and (b) of ATS.OR.435 could be supplemented, as and where necessary, by facilities for other forms of visual or audio communications; for example, closed-circuit television or separate information processing systems.**
6.2.2.3.5	The communication facilities required under 6.2.2.2.2 a), b) and c) shall include provisions for communications by direct speech arranged for conference communications.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(4), as follows: **(4) The communication facilities required under points (b)(2)(i);(ii);(iii) shall include provisions for communications by direct speech arranged for conference communications whereby the communications can normally be established within 15 seconds.**
6.2.2.3.6.	*The communication facilities required under 6.2.2.2.2 d) should include provisions for communications by direct speech arranged for conference communications, whereby the communications can normally be established within fifteen seconds.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(4), in combination with Section 6.2.2.3.5.
6.2.2.3.7	All facilities for direct-speech or data link communications between air traffic services units and between air traffic services units and other units described under 6.2.2.2.1 and 6.2.2.2.2 shall be provided with automatic recording.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.435(c)(5), as follows: **(5) All facilities for direct-speech or data link communications between air traffic services units**

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			and between air traffic services units and other units described under points (b)(1) and (b)(2) shall be provided with automatic recording.
6.2.2.3.8	Recordings of data and communications as required in 6.2.2.3.3 and 6.2.2.3.7 shall be retained for a period of at least 30 days.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.455(a)(2), as follows: **(2) recordings of data and communications, as specified in ATS.OR.435(c)(3) and (5);**
6.2.3.1	Communications between flight information regions Flight information centres and area control centres shall have facilities for communications with all adjacent flight information centres and area control centres.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(a), as follows: **(a) An air traffic services provider shall ensure that flight information centres and area control centres have facilities for communications with all adjacent flight information centres and area control centres. These communication facilities shall in all cases include provisions for messages in a form suitable for retention as a permanent record, and delivery in accordance with transit times specified by ICAO regional air navigation agreements.**
6.2.3.1.1	These communication facilities shall in all cases include provisions for messages in a form suitable for retention as a permanent record, and delivery in accordance with transit times specified by regional air navigation agreements.		
6.2.3.1.2	Unless otherwise prescribed on the basis of regional air navigation agreements, facilities for communications between area control centres serving contiguous control areas shall, in addition, include provisions for direct-speech		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(b), as follows: **(b) An air traffic services provider shall ensure that facilities for communications between area control**

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	and, where applicable, data link communications, with automatic recording, whereby for the purpose of transfer of control using radar, ADS-B or ADS-C data, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds.		**centres serving contiguous control areas, in addition, include provisions for direct-speech and, where applicable, data link communications, with automatic recording, whereby for the purpose of transfer of control using ATS surveillance data, the communications can be established instantaneously, and for other purposes, the communications can normally be established within 15 seconds.**
6.2.3.1.3	When so required by agreement between the States concerned in order to eliminate or reduce the need for interceptions in the event of deviations from assigned track, facilities for communications between adjacent flight information centres or area control centres other than those mentioned in 6.2.3.1.2 shall include provisions for direct speech alone, or in combination with data link communications. The communication facilities shall be provided with automatic recording.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(c), as follows: **(c) When so required by agreement between the States concerned in order to eliminate or reduce the need for interceptions in the event of deviations from assigned track, an air traffic services provider shall ensure that facilities for communications between adjacent flight information centres or area control centres other than those mentioned in point (b):** **(1) include provisions for direct speech alone, or in combination with data link communications;** **(2) permit communications to be**
6.2.3.1.4	*The communication facilities in 6.2.3.1.3 should permit communications to be established normally within fifteen seconds.*		

			established normally within 15 seconds; and **(3) are provided with automatic recording.**
6.2.3.2	*Adjacent ATS units should be connected in all cases where special circumstances exist.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(d), as follows: **(d) An air traffic services provider concerned shall ensure that adjacent air traffic services units are connected in all cases where special circumstances exist.**
	Note.— Special circumstances may be due to traffic density, types of aircraft operations and/or the manner in which the airspace is organized and may exist even if the control areas and/or control zones are not contiguous or have not (yet) been established.		Proposed for transposition as GM1 ATS.OR.440(d), as follows: **Special circumstances may be due to traffic density, types of aircraft operations and/or the manner in which the airspace is organised and may exist even if the control areas and/or control zones are not contiguous or have not (yet) been established.**
6.2.3.3	*Wherever local conditions are such that it is necessary to clear aircraft into an adjacent control area prior to departure, an approach control unit and/or aerodrome control tower should be connected with the area control centre serving the adjacent area.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(e), as follows: (e) **Wherever local conditions are such that it is necessary to clear aircraft into a controlled airspace prior to departure, the air traffic services provider(s) concerned shall ensure that the air traffic services units delivering the clearance to the aircraft are connected with the air traffic control unit serving**

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			the adjacent controlled airspace.
6.2.3.4	*The communication facilities in 6.2.3.2 and 6.2.3.3 should include provisions for communications by direct speech alone, or in combination with data link communications, with automatic recording, whereby for the purpose of transfer of control using radar, ADS-B or ADS-C data, the communications can be established instantaneously and for other purposes the communications can normally be established within fifteen seconds.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(f), as follows: **(f) The communication facilities supporting connections to be established in accordance with points (d) and (e) shall include provisions for communications by direct speech alone, or in combination with data link communications, with automatic recording, whereby for the purpose of transfer of control using ATS surveillance, the communications can be established instantaneously, and for other purposes, the communications can normally be established within 15 seconds.**
6.2.3.5	In all cases where automatic exchange of data between air traffic services computers is required, suitable facilities for automatic recording shall be provided.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.440(g), as follows: **(g) An air traffic services provider shall provide suitable facilities for automatic recording in all cases where automatic exchange of data between air traffic services computers is required.**
6.2.3.6	Recordings of data and communications as required in 6.2.3.5 shall be retained for a period of at least 30 days.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.455(a)(3), as follows: **(3) automatic recordings, as specified**

			in ATS.OR.440;
6.2.4	Procedures for direct-speech communications *Appropriate procedures for direct-speech communications should be developed to permit immediate connections to be made for very urgent calls concerning the safety of aircraft, and the interruption, if necessary, of less urgent calls in progress at the time.*		Proposed for transposition as GM1 to ATS.OR.435(a), as follows: **An ATS provider should develop appropriate procedures for direct-speech communications to permit immediate connections to be made for very urgent calls concerning the safety of aircraft, and the interruption, if necessary, of less urgent calls in progress at the time.**
6.3.1.1	Surface movement control service 6.3.1 Communications for the control of vehicles other than aircraft on manoeuvring areas at controlled aerodromes 6.3.1.1 Two-way radiotelephony communication facilities shall be provided for aerodrome control service for the control of vehicles on the manoeuvring area, except where communication by a system of visual signals is deemed to be adequate.	The proposed transposition includes provisions for the management of vehicles and persons on the manoeuvring area at AFIS aerodromes, where applicable.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.445(a), as follows: **(a) Except where communication by a system of visual signals is deemed to be adequate, an air traffic services provider shall ensure two-way radiotelephony communication facilities for:** **(1) aerodrome control service for the control of vehicles on the manoeuvring area, or** (2) **AFIS for the management of vehicles on the manoeuvring area where such service is provided in accordance with ATS.TR.305(f).**
6.3.1.2	Where conditions warrant, separate communication channels shall be provided for the control of vehicles on the manoeuvring area. Automatic recording facilities shall be provided on all such channels.	The proposed transposition includes provisions for the management of vehicles and persons on the manoeuvring area at AFIS aerodromes, where applicable.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.445(b) and (c), as follows: **(b) When conditions warrant, separate**

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			communication channels for the control or the management of vehicles on the manoeuvring area shall be provided. **(c) Automatic recording facilities on all channels in point (b) shall be provided.**
6.3.1.3	Recordings of communications as required in 6.3.1.2 shall be retained for a period of at least thirty days.	Applicability extended to all FIS/AFIS units, subject to the exemption granted by the competent authority.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.455(a)(4), as follows: **(4) recordings of communications, as specified in ATS.OR.445;**
	Note.— See also Annex 10, Volume II, 3.5.1.5.		Not proposed for transposition with Part-ATS.
6.4	Aeronautical radio navigation service		
6.4.1.1	Automatic recording of surveillance data Surveillance data from primary and secondary radar equipment or other systems (eg ADS-B, ADS-C), used as an aid to air traffic services, shall be automatically recorded for use in accident and incident investigations, search and rescue, air traffic control and surveillance systems evaluation and training.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.450, as follows: **An air traffic services provider shall ensure that surveillance data from primary and secondary radar equipment or other systems (e.g. ADS-B, ADS-C), used as an aid to air traffic services, are automatically recorded for use in accident and incident investigations, search and rescue, air traffic services and surveillance systems evaluation and training.**
6.4.1.2	Automatic recordings shall be retained for a period of at least thirty days. When the recordings are pertinent to accident and incident investigations, they shall be retained for longer periods until it is evident that they will no longer be required.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.455(a)(5), as follows: **(5) recordings of data, as specified in ATS.OR.450;**
7	AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION		

SARP identifier	Annex 11 Amendment 50 Air Traffic Services Standard, *Recommended Practice*, *Notes*, *transposed in SERA*	Differences between Standards and proposed transposition	Proposed transposition into EU ATS Requirements
7.1	Meteorological information		
7.1.1.1	General Air traffic services units shall be supplied with up-to-date information on existing and forecast meteorological conditions as necessary for the performance of their respective functions. The information shall be supplied in such a form as to require a minimum of interpretation on the part of air traffic services personnel and with a frequency which satisfies the requirements of the air traffic services units concerned.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.500(a) and (c), as follows: **(a) An air traffic services provider shall ensure that up-to-date information on existing and forecast meteorological conditions is made available to the relevant air traffic services units as necessary for the performance of their respective functions.** **(b) …….** **(c) The information in points (a) and (b) shall be supplied in such a form as to require a minimum of interpretation on the part of air traffic services personnel and with a frequency which satisfies the requirements of the air traffic services units concerned.**
7.1.1.2	*Air traffic services units should be supplied with available detailed information on the location, vertical extent, direction and rate of movement of meteorological phenomena in the vicinity of the aerodrome, and particularly in the climb-out and approach areas, which could be hazardous to aircraft operations.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.500(b), as follows: **(b) An air traffic services provider shall ensure that available detailed information on the location, vertical extent, direction and rate of movement of meteorological phenomena in the vicinity of the aerodrome, and particularly in the climb-out and approach areas, which could be**

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			hazardous to aircraft operations, is supplied to the relevant air traffic services units.
	Note.— The meteorological phenomena are listed in Annex 3, Chapter 4, 4.6.8.		Not proposed for transposition with Part-ATS.
7.1.1.3	*When computer-processed upper air data are made available to air traffic services units in digital form for use by air traffic services computers, the contents, format and transmission arrangements should be as agreed between the Meteorological Authority and the appropriate ATS authority.*		Not proposed for transposition with Part-ATS. It is considered satisfied by the proposed ATS.OR.500(c).
7.1.2.1	Flight information centres and area control centres Flight information centres and area control centres shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.3, particular emphasis being given to the occurrence or expected occurrence of weather deterioration as soon as this can be determined. These reports and forecasts shall cover the flight information region or control area and such other areas as may be determined on the basis of regional air navigation agreements.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.505(a), as follows: **(a) An air traffic services provider shall ensure that flight information centres and area control centres are supplied with the meteorological information stipulated in MET.OR.245(f), particular emphasis being given on the occurrence or expected occurrence of deterioration in a weather element as soon as this can be determined. These reports and forecasts shall cover the flight information region or control area and such other areas, if so prescribed by the competent authority.**
	Note.— For the purpose of this provision, certain changes in meteorological conditions are construed as deterioration in a weather element, although they are		Proposed for transposition as GM1 ATS.OR.505, as follows:

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	not ordinarily considered as such. An increase in temperature may, for example, adversely affect the operation of certain types of aircraft.		**Certain changes in meteorological conditions are construed as deterioration in a weather element, although they are not ordinarily considered as such. An increase in temperature may, for example, adversely affect the operation of certain types of aircraft.**
7.1.2.2	Flight information centres and area control centres shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information centre or area control centre concerned.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.505(b), as follows: **(b) An air traffic services provider shall ensure that flight information centres and area control centres are provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information centre or area control centre concerned.**
7.1.3.1	Units providing approach control service Units providing approach control service shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.2 for the airspace and the aerodromes with which they are concerned. Special reports and amendments to forecasts shall be communicated to the units providing approach control service as soon as they are necessary in accordance with established criteria, without waiting for the next routine report or forecast. Where multiple anemometers are used, the indicators to which they are related shall be clearly marked to		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(a) and (b), as follows: **(a) An air traffic services provider shall ensure that units providing approach control service are supplied with meteorological information for the airspace and the aerodromes with which they are concerned, as stipulated in MET.OR.242(b).** (b) **An air traffic services provider shall ensure that, where multiple**

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	identify the runway and section of the runway monitored by each anemometer.		**anemometers are used, the displays to which they are related are clearly marked to identify the runway and section of the runway monitored by each anemometer.**
	Note.— See Note following 7.1.2.1.		Not proposed for transposition with Part-ATS.
7.1.3.2	Units providing approach control service shall be provided with current pressure data for setting altimeters, for locations specified by the unit providing approach control service.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(c), as follows: (c) **An air traffic services provider shall ensure that units providing approach control service are provided with current pressure data for setting altimeters, for locations specified by the unit providing approach control service.**
7.1.3.3	Units providing approach control service for final approach, landing and take-off shall be equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(d), as follows: **(d) An air traffic services provider shall ensure that units providing approach control service for final approach, landing and take-off are equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and/or AFIS unit and in the aeronautical meteorological station, where such a station exists.**

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7.1.3.4	Units providing approach control service for final approach, landing and takeoff at aerodromes where runway visual range values are assessed by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding displays in the aerodrome control tower and in the meteorological station, where such a station exists.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(e), as follows: (e) **An air traffic services provider shall ensure that units providing approach control service for final approach, landing and take-off at aerodromes where runway visual range values are assessed by instrumental means, are equipped with display(s) permitting read-out of the current runway visual range value(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and/or AFIS unit and in the aeronautical meteorological station, where such a station exists.**
7.1.3.5 .	*Units providing approach control service for final approach, landing and take-off at aerodromes where the height of cloud base is assessed by instrumental means should be equipped with display(s) permitting read-out of the current value(s) of the height of cloud base. The displays should be related to the same location(s) of observations and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.*		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(f), as follows: **(f) An air traffic services provider shall ensure that units providing approach control service for final approach, landing and take-off at aerodromes where the height of cloud base is assessed by instrumental means, are equipped with display(s) permitting read-out of the current value(s) of the**

			height of cloud base. The displays shall be related to the same location(s) of observations and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and/or AFIS unit and in the aeronautical meteorological station, where such a station exists.
7.1.3.6	Units providing approach control service for final approach, landing and take-off shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.510(g), as follows: (g) **An air traffic services provider shall ensure that units providing approach control service for final approach, landing and take-off are supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach.**
	Note.— Provisions concerning the issuance of wind shear warnings and alerts and ATS requirements for meteorological information are given in Annex 3, Chapter 7 and Appendices 6 and 9.		Not proposed for transposition with Part-ATS.
7.1.4.1	Aerodrome control towers Aerodrome control towers shall be supplied with meteorological information as described in Annex 3, Appendix 9, 1.1 for the aerodrome with which they are concerned. Special reports and amendments to forecasts shall be communicated to the aerodrome control towers as soon as they are necessary in accordance with	Applicability extended to all AFIS units, subject to the exemption granted by the competent authority	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(a), as follows: **(a) An air traffic services provider shall ensure that aerodrome control towers and, unless otherwise prescribed by the competent authority, AFIS units are supplied with meteorological**

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	established criteria, without waiting for the next routine report or forecast.		**information for the aerodrome with which they are concerned as stipulated in MET.OR.242(a).**
	Note.— See Note following 7.1.2.1.		Not proposed for transposition with Part-ATS.
7.1.4.2	Aerodrome control towers shall be provided with current pressure data for setting altimeters for the aerodrome concerned.	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(b), as follows: **(b) An air traffic services provider shall ensure that aerodrome control towers and AFIS units are provided with current pressure data for setting altimeters for the aerodrome concerned.**
7.1.4.3	Aerodrome control towers shall be equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists. Where multiple sensor(s) are used, the displays to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(c), as follows: (c) **An air traffic services provider shall ensure that aerodrome control towers and AFIS units are equipped with surface wind display(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aeronautical meteorological station, where such a station exists. Where multiple sensors are used, the displays to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.**
7.1.4.4	Aerodrome control towers at aerodromes where	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV

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	runway visual range values are measured by instrumental means shall be equipped with display(s) permitting read-out of the current runway visual range value(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such a station exists.		'Part-ATS' as ATS.OR.515(d), as follows: **(d) An air traffic services provider shall ensure that aerodrome control towers and AFIS units at aerodromes where runway visual range values are measured by instrumental means, are equipped with display(s) permitting read-out of the current runway visual range value(s). The display(s) shall be related to the same location(s) of observation and be fed from the same sensor(s) as the corresponding display(s) in the aeronautical meteorological station, where such a station exists.**
7.1.4.5	*Aerodrome control towers at aerodromes where the height of cloud base is assessed by instrumental means should be equipped with display(s) permitting read-out of the current value(s) of the height of cloud base. The displays should be related to the same location(s) of observations and be fed from the same sensor(s) as the corresponding display(s) in the meteorological station, where such station exists.*	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(e), as follows: **(e) An air traffic services provider shall ensure that aerodrome control towers and AFIS units at aerodromes where the height of cloud base is assessed by instrumental means, are equipped with display(s) permitting read-out of the current value(s) of the height of cloud base. The displays shall be related to the same location(s) of observations and be fed from the same sensor(s) as the corresponding display(s) in the aerodrome control tower and AFIS**

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			units and in the aeronautical meteorological station, where such a station exists.
7.1.4.6	Aerodrome control towers shall be supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach and aircraft on the runway during the landing roll or take-off run.	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(f), as follows: **(f) An air traffic services provider shall ensure that aerodrome control tower and AFIS units are supplied with information on wind shear which could adversely affect aircraft on the approach or take-off paths or during circling approach, and aircraft on the runway during the landing roll or take-off run.**
7.1.4.7	*Aerodrome control towers and/or other appropriate units should be supplied with aerodrome warnings.*	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.515(g), as follows: **(g) An air traffic services provider shall ensure that aerodrome control towers and AFIS units and/or other appropriate units are supplied with aerodrome warnings, in accordance with MET.OR.215(b).**
	Note.— The meteorological conditions for which aerodrome warnings are issued are listed in Annex 3, Appendix 6, 5.1.3.		Not proposed for transposition with Part-ATS.
7.1.5	Communication stations Where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to communication		Not proposed for transposition with Part-ATS.

	stations. A copy of such information shall be forwarded to the flight information centre or the area control centre.		
7.2	Information on aerodrome conditions and the operational status of associated facilities Aerodrome control towers and units providing approach control service shall be kept currently informed of the operationally significant conditions of the movement area, including the existence of temporary hazards, and the operational status of any associated facilities at the aerodrome(s) with which they are concerned.	Applicability extended to all AFIS units.	Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.520, as follows: **An air traffic services provider shall ensure that aerodrome control towers, AFIS units and units providing approach control service are kept currently informed of the operationally significant conditions of the movement area, including the existence of temporary hazards, and the operational status of any associated facilities at the aerodrome(s) with which they are concerned, as reported by the aerodrome operator.**
7.3.1	Information on the operational status of navigation services ATS units shall be kept currently informed of the operational status of radio navigation services and visual aids essential for take-off, departure, approach and landing procedures within their area of responsibility and those radio navigation services and visual aids essential for surface movement.		Proposed for transposition within Annex IV 'Part-ATS' as ATS.OR.525(a), as follows: **(a) An air traffic services provider shall ensure that air traffic services units are kept currently and timely informed of the operational status of radio navigation services and visual aids essential for take-off, departure, approach and landing procedures within their area of responsibility, and of those radio navigation services and visual aids essential for surface movement.**
7.3.2	*Information on the operational status, and any*	The amendment introduced with the proposed	Proposed for transposition within Annex IV

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	changes thereto, of radio navigation services and visual aids as referred to in 7.3.1 should be received by the appropriate ATS unit(s) on a timely basis consistent with the use of the service(s) and aid(s) involved.	transposition of Section 7.3.2 constitutes a difference to the Standard in Section 7.3.1.	'Part-ATS' as ATS.OR.525(b), as follows: **(b) An air traffic services provider shall establish appropriate arrangements in accordance with ATM/ANS.OR.B.005(f) to ensure that information in point (a) with regard to the GNSS services is provided.**
7.3.2	*Note.— Guidance material regarding the provision of information to ATS units in respect to visual and non-visual navigation aids is contained in the* Air Traffic Services Planning Manual *(Doc 9426). Specifications for monitoring visual aids are contained in Annex 14, Volume I, and related guidance material is in the* Aerodrome Design Manual *(Doc 9157), Part 5. Specifications for monitoring non-visual aids are contained in Annex 10, Volume I.*		Proposed for transposition as GM1 ATS.OR.525(a), as follows: **Guidance material regarding the provision of information to ATS units with respect to visual and non-visual navigation aids is contained in ICAO Doc 9426 'Air Traffic Services Planning Manual' (Appendix A to Chapter 10, Part I).**
7.4	Information on unmanned free balloons Operators of unmanned free balloons shall keep the appropriate air traffic services units informed of details of flights of unmanned free balloons in accordance with the provisions contained in Annex 2.		Not proposed for transposition with Part-ATS. It is already covered in Appendix 2 to the SERA Regulation.
7.5.1	Information concerning volcanic activity ATS units shall be informed, in accordance with local agreement, of pre-eruption volcanic activity, volcanic eruptions and volcanic ash cloud which could affect airspace used by flights within their area of responsibility.		Not proposed for transposition with Part-ATS. It is already covered by MET.OR.200(c) in Annex V (PART-MET).
7.5.2	Area control centres and flight information centres shall be provided with volcanic ash advisory information issued by the associated VAAC.		Not proposed for transposition with Part-ATS. It is already covered by MET.OR.245(d) in Annex V (PART-MET).

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	Note.— VAACs are designated by regional air navigation agreements in accordance with Annex 3, 3.5.1.		Not proposed for transposition with Part-ATS.
7.6	Information concerning radioactive materials and toxic chemical "clouds" ATS units shall be informed, in accordance with local agreement, of the release into the atmosphere of radioactive materials or toxic chemicals which could affect airspace used by flights within their area of responsibility.		Not proposed for transposition with Part-ATS. As far as information regarding radioactive materials, the provision is satisfied by MET.OR.245(f)(5). In order to cover the requirement concerning the toxic chemical clouds, it is proposed to amend MET.OR.245 by the introduction of point (g) as follows: **(g) when available, provide the relevant ATS units, in accordance with local agreement, information regarding the release into the atmosphere of toxic chemicals which could affect the airspace used by flights within their area of responsibility.**
Appendix 1	Principles governing the identification of navigation specifications and the identification of ATS routes other than standard departure and arrival routes		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
Appendix 2	Principles governing the establishment and identification of significant points		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
Appendix 3	Principles governing the identification of standard departure and arrival routes and associated procedures		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
Appendix 4	ATS airspace classes — services provided and flight requirements		Not proposed for transposition with Part-ATS. Appendix 4 is transposed as Appendix 4 to SERA Regulation.

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Appendix 5	Aeronautical data quality requirements		Not proposed for transposition with Part-ATS. Aeronautical data quality requirements are proposed for inclusion in the ATM/ANS Common Requirements Regulation with Opinion 02/2018.
Appendix 6	Prescriptive fatigue management regulations		
	Note.— Guidance on the development and implementation of prescriptive fatigue management regulations is contained in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).		Not proposed for transposition with Part-ATS.
	1. States shall establish prescriptive limitation regulations that take into account acute and cumulative fatigue, circadian factors and the type of work being undertaken. These regulations shall identify: a) the maximum: i) number of hours in any duty period; ii) number of consecutive work days; iii) number of hours worked in a defined period; and iv) time-in-position; b) the minimum: i) duration of non-duty periods; ii) number of non-duty days required in a defined period; and iii) duration of breaks between periods of time-in-position in a duty period.		ATS.TR.320 Annex IV 'Part-ATS', Subpart B, Section 3 of the ATM/ANS Common Requirements Regulation stipulates requirements for the ATCO rostering system, almost identical to those in point 1.
	2. States shall require that the air traffic services provider identifies a process for assigning unscheduled duties that allows air traffic		Not proposed for transposition with Part-ATS.

	controllers to avoid extended periods of being awake.		
	3. The processes established by States in accordance with 2.28.3 c) and d) to allow variations from 1 a) and b) above shall include the provision of: a) the reason for the need to deviate; b) the extent of the deviation; c) the date and time of enactment of the deviation; and d) a safety case, outlining mitigations, to support the deviation.		
Appendix 7	Fatigue Risk Management System (FRMS) requirements		Appendix 7 not proposed for transposition with Part-ATS.
	Note.— Guidance on the development and implementation of FRMS regulations is contained in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).		
	States shall require that an FRMS contain, at a minimum:		
1.	FRMS policy and documentation		
1.1.1	1.1 FRMS policy The air traffic services provider shall define its FRMS policy, with all elements of the FRMS clearly identified.		
1.1.2	The policy shall: a) define the scope of FRMS operations; b) reflect the shared responsibility of management, air traffic controllers, and other involved personnel; c) clearly state the safety objectives of the FRMS; d) be signed by the accountable executive of		

	the organization; e) be communicated, with visible endorsement, to all the relevant areas and levels of the organization; f) declare management commitment to effective safety reporting; g) declare management commitment to the provision of adequate resources for the FRMS; h) declare management commitment to continuous improvement of the FRMS; i) require that clear lines of accountability for management, air traffic controllers, and all other involved personnel are identified; and j) require periodic reviews to ensure it remains relevant and appropriate.		
	Note.— Effective safety reporting is described in the Safety Management Manual (SMM) (Doc 9859).		
1.2	FRMS documentation An air traffic services provider shall develop and keep current FRMS documentation that describes and records: a) FRMS policy and objectives; b) FRMS processes and procedures; c) accountabilities, responsibilities and authorities for these processes and procedures; d) mechanisms for ongoing involvement of management, air traffic controllers, and all other involved personnel; e) FRMS training programmes, training requirements and attendance records; f) scheduled and actual duty and non-duty periods and break periods between times in		

	position in a duty period with significant deviations and reasons for deviations noted; and g) FRMS outputs including findings from collected data, recommendations, and actions taken.		
	Note.— Significant deviations are described in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).		
2.	Fatigue risk management processes		
2.1	Identification of fatigue-related hazards		
	Note.— Provisions on the protection of safety information are contained in Annex 19.		
	An air traffic services provider shall develop and maintain three fundamental and documented processes for fatigue hazard identification:		
2.1.1	*Predictive.* The predictive process shall identify fatigue hazards by examining air traffic controller scheduling and taking into account factors known to affect sleep and fatigue and their effects on performance. Methods of examination may include but are not limited to: a) air traffic services or industry operational experience and data collected on similar types of operations or from other industries with shift work or 24-hour operations; b) evidence-based scheduling practices; and c) bio-mathematical models.		
2.1.2	*Proactive.* The proactive process shall identify fatigue hazards within current air traffic services operations. Methods of examination may include but are not limited to:		

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	a) self-reporting of fatigue risks; b) fatigue surveys; c) relevant air traffic controller performance data; d) available safety databases and scientific studies; e) tracking and analysis of differences in planned and actual worked times; and f) observations during normal operations or special evaluations.		
2.1.3	*Reactive.* The reactive process shall identify the contribution of fatigue hazards to reports and events associated with potential negative safety consequences in order to determine how the impact of fatigue could have been minimized. At a minimum, the process may be triggered by any of the following: a) fatigue reports; b) confidential reports; c) audit reports; and d) incidents.		
2.2	Fatigue-related risk assessment		
2.2.1	An air traffic services provider shall develop and implement risk assessment procedures that determine when the associated risks require mitigation.		
2.2.2	The risk assessment procedures shall review identified fatigue hazards and link them to: a) operational processes; b) their probability; c) possible consequences; and d) the effectiveness of existing preventive controls and recovery measures.		

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2.3	Risk mitigation An air traffic services provider shall develop and implement fatigue risk mitigation procedures that: a) select the appropriate mitigation strategies; b) implement the mitigation strategies; and c) monitor the strategies' implementation and effectiveness.		
3.	FRMS safety assurance processes The air traffic services provider shall develop and maintain FRMS safety assurance processes to: a) provide for continuous FRMS performance monitoring, analysis of trends, and measurement to validate the effectiveness of the fatigue safety risk controls. The sources of data may include, but are not limited to: 1) hazard reporting and investigations; 2) audits and surveys; and 3) reviews and fatigue studies (both internal and external); b) provide a formal process for the management of change. This shall include but is not limited to: 1) identification of changes in the operational environment that may affect the FRMS; 2) identification of changes within the organization that may affect the FRMS; and 3) consideration of available tools which could be used to maintain or improve FRMS performance prior to implementing changes; and		

	c) provide for the continuous improvement of the FRMS. This shall include but is not limited to: 1) the elimination and/or modification of preventive controls and recovery measures that have had unintended consequences or that are no longer needed due to changes in the operational or organizational environment; 2) routine evaluations of facilities, equipment, documentation and procedures; and 3) the determination of the need to introduce new processes and procedures to mitigate emerging fatigue-related risks.		
4.	FRMS promotion processes FRMS promotion processes support the ongoing development of the FRMS, the continuous improvement of its overall performance, and attainment of optimum safety levels. The following shall be established and implemented by the air traffic service provider as part of its FRMS: a) training programmes to ensure competency commensurate with the roles and responsibilities of management, air traffic controllers, and all other involved personnel under the planned FRMS; and b) an effective FRMS communication plan that: 1) explains FRMS policies, procedures and responsibilities to all relevant stakeholders; and		

	2) describes communication channels used to gather and disseminate FRMS-related information.		
Appendix 8	State responsibilities concerning an instrument flight procedure design service		Appendix 7 not proposed for transposition with Part-ATS.
	(Note.— See Chapter 2, 2.33)		
1.	A State shall: a) provide an instrument flight procedure design service; and/or b) agree with one or more Contracting State(s) to provide a joint service; and/or c) delegate the provision of the service to external agency(ies).		
2.	In all cases in paragraph 1 above, the State concerned shall approve and remain responsible for all instrument flight procedures for aerodromes and airspace under the authority of the State.		
3.	Instrument flight procedures shall be designed in accordance with State-approved design criteria.		
4.	Each State shall ensure that an instrument flight procedure design service provider intending to design an instrument flight procedure for aerodromes or airspace under the authority of that State meets the requirements established by that State's regulatory framework.		
	Note.—Guidance material for regulatory framework for the oversight of instrument flight procedure design service is contained in the Manual on the Development of a Regulatory Framework for Instrument Flight Procedure Design Service (Doc XXXX).		
5.	A State shall ensure that an instrument flight		

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	procedure design service provider utilize a quality management system at each stage of the instrument flight procedure design process.		
	Note.— This requirement can be met by means of a quality assurance methodology, such as that described in PANS-OPS (Doc 8168), Volume II, Part I, Section 2, Chapter 4 — Quality Assurance. Guidance for implementing such a methodology is contained in The Quality Assurance Manual for Flight Procedure Design (Doc 9906).		
6.	6. A State shall ensure that maintenance and periodic review of instrument flight procedures for aerodromes and airspace under the authority of the State are conducted. Each State shall establish an interval for periodic review of instrument flight procedures not exceeding five years.		
	Note.— Guidance on maintenance and periodic review is contained in the Quality Assurance Manual for Flight Procedure Design (Doc 9906).		
Attachment A	Material relating to a method of establishing ATS routes defined by VOR		Not proposed for transposition with Part-ATS. It is proposed for transposition within measures proposed for Annex XI 'Part-FPD' with Opinion 02/2018.
Attachment B	Traffic information broadcasts by aircraft (TIBA) and related operating procedures		Not proposed for transposition with Part-ATS.
Attachment C	Material relating to contingency planning		Reference to the content of Attachment C to Annex 11 is mentioned in the proposed GM4 ATS.OR.135 'Contingency arrangements'.