Document History

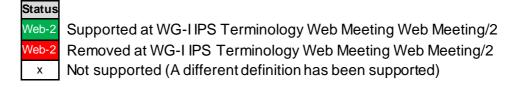| Edition	Date	Notes
0.1	06/08/2019	Presented at WG-I Web Meeting/4
0.2	07/08/2019	Including the changes made in WG-I Web Meeting/1
0.3	05/09/2019	Update following WG-I IPS Terminology Web Meeting/1
0.4	22/01/2020	Update following WG-I IPS Terminology Web Meeting/2

This document provides a compilation of the various glossaries of terms, as defined in each of the IPS relevant documents listed below. Table rows have been coloured in order to facilitate identification of the original source document of each of the definitions.

Row colour	Source document	Document version
	ARINC REPORT 658 ARINC PROJECT PAPER 858 (Draft 8)	• *ARINC REPORT 658 - INTERNET PROTOCOL SUITE (IPS) FOR AERONAUTICAL SAFETY SERVICES ROADMAP DOCUMENT – Published December 18, 2017* • *ARINC PROJECT PAPER 858 (Draft 8), July 2019*
	ICAO Doc. 9896 ed2	• *ICAO Doc 9896, Second Edition, 2015*
	ICAO Annex 10	• *ICAO - Annex 10: Aeronautical Telecommunications, Volume II: Communication Procedures including those with PANS status – Seventh Edition, July 2016* • *ICAO - Annex 10: Aeronautical Telecommunications, Volume III: Communication Systems, 2nd Edition, July 2007*
	ICAO Annex 11	• *ICAO Annex 11, 13th Edition, July 2001*
	ICAO Doc 4444	• *ICAO Doc 4444, 16th Edition, 2016*
	ICAO Doc 9705	• *ICAO Doc 9705, First edition, 1998 (Obsolete)*
	ICAO Doc 9776	• *ICAO Doc 9776, Second Edition, 2015*
	ICAO Doc 9880	• *ICAO Doc 9880, Second Edition, 2016*
	ICAO Doc 9869	• *ICAO Doc 9869 – PBCS Manual, Second Edition, 2017*
	ICAO Doc 10037	• *ICAO Doc 10037, Global Operational Data Link Manual (GOLD), First Edition, 2017*
	ICAO WGI Mobility Subgroup – Mobility Selection Criteria	• *WP07.1 Additional Mobility Selection Criteria v3 (amended at meeting) v4 – Seventh WG-I Mobility Subgroup meeting – March 2019* • *Paper on 'Definitions Related to Mobility' (Tony Whyman)*
	RTCA/EUROCAE IPS Profiles	• *EUROCAE - Internet Protocol Suite Profiles Draft ED-262 for Open Consultation - February 2019*
	ED-100A / DO-258A	• *EUROCAE -INTEROPERABILITY REQUIREMENTS FOR ATS APPLICATIONS USING ARINC 622 DATA COMMUNICATIONS (FANS 1/A INTEROP STANDARD) – April 2005*
	ED-228A / DO-350A	• *EUROCAE - SAFETY AND PERFORMANCE REQUIREMENTS STANDARD FOR BASELINE 2 ATS DATA COMMUNICATIONS (BASELINE 2 SPR STANDARD) –March 2016*
	SESAR1 - P15.02.04 Deliverables (D04, D09, D11)	• *Deliverable D04 - Quality of Service (QoS) and Classes of Service (CoS), Edition 00.01.00, March 2015* • *Deliverable D09 - Logical Architecture Definition , Edition 00.01.01, June 2016* • *Deliverable D11 - ATN/IPS protocol specification, Edition 00.01.00, July 2016*

	SESAR2020 – PJ14.02.04 Deliverables (FRD)	• *Future Communications Infrastructure (FCI) Functional Requirements Document (FRD) – Edition 00.01.02 – 04 June 2018*
	RFC 1930	*IETF – RFC 1930: Guidelines for creation, selection, and registration of an Autonomous System (AS) - 1996*

- Terms which have been defined in more than one of the source documents, are <mark>highlighted in yellow</mark> for easier identification.

- Agreement reached by ICAO WG-I members is captured under the 'Status' column with the following colour code:

Status	
Web-2	Supported at WG-I IPS Terminology Web Meeting Web Meeting/2
Web-2	Removed at WG-I IPS Terminology Web Meeting Web Meeting/2
x	Not supported (A different definition has been supported)

Note: SESAR documents contain glossaries encompassing a wide range of aviation terms. A selection of IPS relevant terms has been extracted and included in this document.

Term	Definition	Source	Status
4D trajectory	A set of consecutive segments linking waypoints and/or points computed by airborne or by ground systems to build the vertical profile and the lateral profile where each point is defined by a longitude, latitude a level and a time.	SESAR2020 PJ14.02.04 FRD	x
4D Trajectory	The 4D trajectory is: • the lateral path consisting of route waypoints, and • the vertical path consisting of the predicted altitude and vertical constraints, if any, at each of the waypoints forming the lateral path, and • the predicted speed and speed constraints, if any, at each of the waypoints forming the lateral path, and • the predicted time and time constraints, if any, at each of the waypoints forming the lateral path. *NOTE: The aircraft 4D trajectory includes any FMS computed and/or flight crew inserted waypoints.*	ED-228A / DO-350A	Web-2
Access Service Provider	According to RFC 4640, an ASP is a network operator that provides direct IP packet forwarding to and from the end host.	ICAO Doc. 9896 ed2	
AAC – Aeronautical Administrative Communications	Communication used by aeronautical operating agencies related to the business aspects of operating their flights and transport services. This communication is used for a variety of purposes, such as flight and ground transportation, bookings, deployment of crew and aircraft or any other logistical purposes that maintain or enhance the efficiency of over-all flight operation.	ARINC PROJECT PAPER 858 (Draft 8) ICAO Doc 9705	Web-2
AAC – Aeronautical Administrative Communications	Communications necessary for the exchange of aeronautical administrative messages.	ICAO Annex 10, Volume III ICAO Doc 9880	x
ACARS – Aircraft Communications Addressing and Reporting System	A digital datalink network providing connectivity between aircraft and ground end systems (command and control, air traffic control).	ARINC REPORT 658	Web-2
Access network	A network that is characterized by a specific access technology	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Access network	A Mobile Network used to access a DMM (Distributed Mobility Managment) Cloud Service Provider	Paper on 'Definitions Related to Mobility'	

Term	Definition	Reference	
Access Point	A node on an access network that provides access to a DMM Cloud Service Provider.	Paper on 'Definitions Related to Mobility'	
ACD – Aircraft Control Domain	This domain consists of systems and networks whose primary functions are to support the safe operation of the aircraft. This domain connects to high-priority Air Traffic Services (ATS) and some Airline Operational Control (AOC) communications.	ARINC REPORT 658	Web-2
Administrative domain	An administrative entity in the ATN/IPS. An administrative domain can be an individual State, a group of States, an aeronautical industry organization (e.g. an air-ground service provider), or an air navigation service provider (ANSP) that manages ATN/IPS network resources and services. From a routing perspective, an administrative domain includes one or more autonomous systems.	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	Web-2
ACSP	Air/Ground Communications Service Provider	Paper on 'Definitions Related to Mobility'	
ADS-C – Automatic Dependent Surveillance-Contract	A datalink application that provides for contracted services between ground systems and aircraft. Contracts are established such that the aircraft will automatically provide information obtained from its own on-board sensors, and pass this information to the ground system under specific circumstances dictated by the ground system (except in emergencies). Note: Check DOC 9880 Part 1 and DO 350 -> (See below)	ARINC REPORT 658	x
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.	SESAR2020 PJ14.02.04 FRD ICAO Annex 11 ICAO Annex 10, Volume III ICAO Doc 9880 ED-228A / DO-350A	Web-2
Air/Ground (A/G) Network	An Access Network supporting wireless communication between an aircraft and the fixed ATN/IPS. An A/G Network is provided by an ACSP.	Paper on 'Definitions Related to Mobility'	

Term	Definition	Reference	
A/G Session	A shared communication context between an airborne mobile node and an A/G Network. All A/G communication takes place within the context of an A/G Session. The A/G Session is maintained by the A/G Network.	Paper on 'Definitions Related to Mobility'	
Airborne ATN/IPS System	The collection of airborne components and functions that provide ATN/IPS services.	ARINC REPORT 658	Web-2
Airborne Radio	Physical airborne radio that provides the communication over the air using the specific A/G subsystem specification and the layer 2 interface to the Airborne Router.	SESAR1/P15.2.4 D09	Web-2
AISD – Aircraft Information Services Domain	This domain provides general purpose routing, computing, data storage and communications services for non-essential applications. The AISD domain can be subdivided into two sub-domains: • Administrative sub-domain, which provides operational and airline administrative information to both the flight deck and cabin, • Passenger support sub-domain, which provides information to support the Passengers	ARINC REPORT 658	Web-2
Anycast Address	An identifier for a set of interfaces (typically belonging to different nodes). A packet sent to an anycast address is delivered to one of the interfaces identified by that address (the "nearest" one, according to the routing protocols' measure of distance). (Source: RFC 4291)	Paper on 'Definitions Related to Mobility'	
AOA – ACARS Over Aviation VHF Link Control	AOA is an attempt at gaining some early benefits of digital technology without the full risk of ATN. It is a step between full ACARS and full ATN. The most significant near-term benefit is the reduction of VHF congestion problems by transitioning traffic to the VDLM2 air/ground network. AOA allows airborne and airline host applications to remain unchanged (character format). The airborne AOA process packages the data so that it can be routed over the digital VDLM2 network. At some point on the ground, the data is restored to its original format for processing by legacy airline host applications. VDLM2 operates at 31.5 kbps versus ACARS at 2.4 kbps. Check ICAO 9776 -> Definition not found	ARINC REPORT 658	
AOC – Airline Operational Control (Aeronautical Operational Control)	Communication required for the exercise of authority over the initiation, continuation, diversion or termination of flight for safety, regularity and efficiency reasons. Operational messages used between aircraft and airline dispatch centers or, by extension, the DoD to support flight operations. This includes, but is not limited to, flight planning, flight following, and the distribution of information to flights and affected personnel.	ARINC PROJECT PAPER 858 (Draft 8)	x
AOC – Aeronautical Operational Control	Communication required for the exercise of authority over the initiation, continuation, diversion or termination of flight for safety, regularity and efficiency reasons.	ICAO Annex 10, Part III ICAO Doc 9880 ICAO Doc 10037 (GOLD)	Web-2

Term	Definition	Reference	Status
APC – Aeronautical Passenger Communications	Communication relating to the non-safety voice and data services to passengers and crew members for personal communication.	ARINC PROJECT PAPER 858 (Draft 8) ICAO Annex 10, Part III ICAO Doc 9880	Web-2
Application	Functions that provide the services needed by the users. Applications are grouped into application sets that are associated to specific network protocols. In the ACD domain the Applications sets are providing air traffic and operational control services.	ARINC REPORT 658	x
Application	The ultimate use of an information system, as distinguished from the system itself.	ICAO Doc 9880	Web-2
Application layer	The seventh layer of the OSI reference model that controls application-user access to the communication system and provides services to perform a logical association to other applications.	ICAO Doc 9880, Part III	Web-2
Applicative Service Provider	Applicative Service Provider is a generic term used here to refer to any independent entity providing services to entities located on the mobile subnetwork. In this sense, an ATC Centre is seen as a Applicative Service Provider just as an AOC Centre or an ANSP. The Applicative Service Provider network is composed of end systems hosting applications that interact with applications hosted on end systems located on the mobile subnetwork.	SESAR1/P15.2.4 D09	Web-2
ATC – Air Traffic Control	A service operated by an appropriate authority to promote the safe, orderly, and expeditious flow of air traffic. [Source: FAA]	ARINC PROJECT PAPER 858 (Draft 8) FAA Pilot Controller Glossary	Web-2
Air traffic control service.	A service provided for the purpose of: a) preventing collisions: -1) between aircraft, and -2) on the manoeuvring area between aircraft and obstructions; and b) expediting and maintaining an orderly flow of air traffic.	ICAO Doc 4444 ICAO Doc 10037 (GOLD)	Web-2
ATM – Air Traffic Management	The dynamic, integrated management of air traffic and airspace (including air traffic services, airspace management and air traffic flow management) — safely, economically and efficiently — through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions.	ARINC PROJECT PAPER 858 (Draft 8) ICAO Doc 4444	Web-2
ATM system	A system that provides ATM through the collaborative integration of humans, information, technology, facilities and services, supported by air and ground- and/or space-based communications, navigation and surveillance.	SESAR2020 PJ14.02.04 FRD ICAO Doc 4444	Web-2

Term	Definition	Reference	
ATN – Aeronautical Telecommunications Network	An internetwork architecture that allows ground/ground, air/ground, and avionic data subnetworks to interoperate by using common interface services and protocols based on the ISO OSI Reference Model.	ARINC REPORT 658 ICAO Doc 9776	x
Aeronautical telecommunication network (ATN)	A global internetwork architecture that allows ground, air-ground and avionic data subnetworks to exchange digital data for the safety of air navigation and for the regular, efficient and economic operation of air traffic services.	ICAO Annex 10, Volume III ICAO Doc 10037 (GOLD)	Web-2
ATN/IPS– Aeronautical Telecommunications Network/Internet Protocol Suite	The set of technical provisions and standards that define the architecture and operation of Internet Protocol-based networking services .	ARINC REPORT 658	Web-2
ATN/IPS Node	An ATN/IPS node is a device that implements IPv6. There are two types of ATN/IPS nodes; 1) the ATN/IPS system that forwards Internet Protocol (IP) packets not explicitly addressed to itself and 2) ATN/IPS host, which does not have the capability to route traffic flows.	ARINC REPORT 858 (Draft 8)	
ATN/OSI – Aeronautical Telecommunications Network/Open Systems Interconnection	The set of technical provisions and standards that define the architecture and operation of OSI-based networking services for safety services. Sometimes just referred to as OSI. ATN/OSI is used for the DLS-IR implementation in Europe.	ARINC REPORT 658 [Removed in 858 Draft 8]	
ATS – Air Traffic Services	A generic term meaning variously, flight information service, alerting service, air traffic advisory service, or air traffic control service. The latter is a service provided for the purpose of preventing collisions, by expediting and maintaining an orderly flow of traffic.	ARINC PROJECT PAPER 858 (Draft 8)	x
ATS- Air Traffic Services	A generic term meaning variously, flight information service, alerting service, air traffic advisory service, or air traffic control service (area control service, approach control service or aerodrome control service).	ICAO Annex 11 ICAO Doc 9880 ICAO Doc 10037 (GOLD)	Web-2
ATSU – Air Traffic Services Unit	A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure. It is a generic term meaning air traffic control unit, flight information center, or air traffic service reporting office.	ARINC REPORT 658	x

Term	Definition	Reference	
ATSU – Air Traffic Services Unit	A generic term meaning variously, ATC unit, flight information center, or ATC service area control services reporting office. Note: Other definition available TBC	ICAO Annex 11 ICAO Doc 9705 ICAO Doc 9880 ICAO Doc 10037 (GOLD)	Web-2
ATSU – Air Traffic Services Unit	A generic term meaning variously, ATC unit, flight information center, or ATC service area control services reporting office. In this document, ATSU refers to both human operators (e.g., controllers) and automated systems (e.g., data processing systems) at an ATSU, unless specifically stated otherwise.	ED-228A / DO-350A	x
Autonomous system	A connected group of one or more IP prefixes, run by one or more network operators, which has a single, clearly defined routing policy Check pre-amble of RFC 1930 (BGP-4) -> See below	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Autonomous system	The classic definition of an Autonomous System is a set of routers under a single technical administration, using an interior gateway protocol and common metrics to route packets within the AS, and using an exterior gateway protocol to route packets to other ASes. Since this classic definition was developed, it has become common for a single AS to use several interior gateway protocols and sometimes several sets of metrics within an AS. The use of the term Autonomous System here stresses the fact that, even when multiple IGPs and metrics are used, the administration of an AS appears to other ASes to have a single coherent interior routing plan and presents a consistent picture of what networks are reachable through it. To rephrase succinctly: An AS is a connected group of one or more IP prefixes run by one or more network operators which has a SINGLE and CLEARLY DEFINED routing policy.	RFC 1930 Paper on 'Definitions Related to Mobility'	
Availability	Availability is a system requirement, associated with the data communication service. Availability is a unit-less probability and is defined as the ratio between the time the system is actually available for service (MTBF) and the time the system is planned for service (MTTR + MTBF). Check GOLD -> Not found Check PBCS Manual -> See below	SESAR1/P15.2.4 D04	
Availability	The probability that an operational communication transaction can be initiated when needed.	ICAO Doc 9869 (PBCS Manual)	

B2 – Baseline 2	The CM, CPDLC, and ADS-C applications defined by the RTCA DO-350/ED-228 documents published in March 2014. Does NOT include D-RNP or AIM. Note that B2 is independent of the network technology used (e.g., can be either ATN/OSI-based or ATN/IPS-based). Interoperability of ATN/OSI and ATN/IPS may be handled if accommodation features are implemented. Check DO 350 definitions – ED-228A: Not found TBC (reference to the document)	ARINC REPORT 658 [Removed in 858 Draft 8]	
B2A – Baseline 2A	The CM, CPDLC, and ADS-C applications defined by the RTCA DO-350A/ED-228A documents published in March 2016. Includes D-RNP and AIM. Currently slated for Pilot Common Projects in Europe, although Europe does not plan to make use of messages supporting D-RNP and AIM. Note that B2A is independent of the network technology used (e.g., can be either ATN/OSI-based or ATN/IPS-based). Interoperability of ATN/OSI and ATN/IPS may be handled if accommodation features are implemented. Check DO 350 definitions – ED-228A: Not found	ARINC REPORT 658 [Removed in 858 Draft 8]	
B2B – Baseline 2B	The validated, updated version of B2A, envisaged to be published at some point in the future after more validation work on B2A. It is expected that there will be validation updates but no new functionality. Will likely be published as RTCA DO-350B/ED-228B. Currently envisaged for FAA Data Comm program Segment 2. Note that at the time of this writing, no work in SC-214/WG-78 is currently underway, so there is no scheduled publication. Note that B2B is independent of the network technology used (e.g., can be either ATN/OSI-based or ATN/IPS-based). Interoperability of ATN/OSI and ATN/IPS may be handled if accommodation features are implemented. Check DO 350 definitions – ED-228A: Not found	ARINC REPORT 658 [Removed in 858 Draft 8]	
B3 – Baseline 3	Currently undefined, but is intended to be the next version of applications for air traffic services beyond the B2x series. The intention for B3 is that it will be run over ATN/IPS or future network technologies, and will likely not operate over ATN/OSI technologies. Check SESAR definition	ARINC REPORT 658 [Removed in 858 Draft 8]	
Class of service (CoS)	Is an attribute that is associated with an application transaction in order to ensure that the A/G communication system is designed in such a way that it will be capable of providing the QoS required by the transaction. Check PBCS Manual -> Not found	SESAR1/P15.2.4 D04	
CM – Context Management	The CM application provides for the initial logon for an aircraft to a ground system along with the exchange of application and addressing information. Check DOC 9880 -> See below	ARINC REPORT 658	x
Context Management (CM application)	An ATN application that provides a logon service allowing initial aircraft introduction into the ATN and a directory of all other data link applications on the aircraft. It also includes functionality to forward between ATS units. Note.- Context management is a recognized OSI presentation layer term. The OSI use and the ATN use have nothing in common.	ICAO Doc 9880	Web-2

CM – Communication Manager	This function manages the connectivity of the aircraft with the ground system. It is decomposed into two sub-functions: • ATN/IPS Communication Manager, which manages in the ATN/IPS system the selection of the radio bearer for a dedicated traffic flow and the associated mode of communication. • External Communication Manager, which performs router selection and associated vertical handover decisions. This entity may be extended to include the management of multi-domain link selections.	ARINC PROJECT PAPER 858 (Draft 8)	Web-2
CMU – Communication Management Unit	The CMU performs two important functions: it manages access to the various datalink sub-networks and services available to the aircraft and hosts various applications related to datalink. It also interfaces to the Flight Management System (FMS) and to the crew displays.	ARINC REPORT 658	Web-2
CNS/ATM – Communication, Navigation, Surveillance/Air Traffic Management	CNS/ATM is a system based on digital technologies, satellite systems, and enhanced automation to achieve a seamless global Air Traffic Management. Modern CNS systems will eliminate or reduce a variety of constraints imposed on ATM operations today.	ARINC REPORT 658	Web-2
Continuity	Continuity is a parameter that specifies the minimum proportion of relevant operational communication/surveillance transactions to be completed within the specified time, given that the service was available at the start of the transaction	SESAR1/P15.2.4 D04	
Continuity	The probability that a transaction completes within the expiration time Check PBCS -> See below	ED-228A / DO-350A	
Continuity	The minimum proportion of relevant operational communication transactions to be completed within the specified time, given that the service was available at the start of the transaction, where: a) the minimum proportion is either 95 per cent that is used for statistical monitoring, or a proportion (e.g. 99.9 percent) that is associated with the time after which the initiator is required to revert to an alternative procedure; and b) the specified time represents the RCP transaction time or any allocation provided by the RCP specification.	ICAO Doc 9869 (PBCS Manual)	

Term	Definition	Reference	
Control Plane	Data exchanged to manage communication sessions between users. The control plane includes protocols providing information needed to move traffic from one device to another through the network. Routing protocols and DNS belong to the control plane. Check RFC 6373	SESAR1/P1 4.2.4 D09	
CPDLC – Controller-Pilot Data Link Communications	The CPDLC application provides for the exchange of flight planning, clearance, and informational data between a flight crew and air traffic control. This application supplements voice communications and, in some areas, data may supersede voice.	ARINC REPORT 658	x
CPDLC – Controller-Pilot Data Link Communications	Application that allows ATC data communications between controllers and pilots.	ED-228A / DO-350A	x
Controller-Pilot Data Link Communications (CPDLC)	A means of communication between controller and pilot, using data link for ATC communications.	ICAO Doc 9880 ICAO Doc 10037 (GOLD)	Web-2
Controller-Pilot Data Link Communications (CPDLC) application	An ATN application that provides a means of data communication between controlling, receiving or downstream ATS units and the aircraft, using air-ground and ground-ground subnetworks, and which is consistent with the ICAO phraseology for the current ATC voice communication.	ICAO Doc 9880	Web-2
Data link	A connection between any two network nodes for the purpose of sending and receiving digital information. This may be a physical link or a virtual link.	Paper on 'Definitions Related to Mobility'	
Data Plane	Composed of the User Plane and the Control Plane. Check RFC/other inputs	SESAR1/P1 4.2.4 D09	
Differentiated Services (DiffServ)	A computer networking architecture that specifies a simple and scalable mechanism for classifying and managing network traffic and providing quality of service (QoS) on modern IP networks.	Paper on 'Definitions Related to Mobility'	
Differentiated Services Code Point (DSCP)	A 6-bit value used to indicate the Traffic Class of a data packet. Each DSCP value is unique only within the same Differentiated Services Domain.	Paper on 'Definitions Related to Mobility'	

Differentiated Services Domain	A contiguous portion of the Internet over which a consistent set of differentiated services policies are administered in a coordinated fashion. A differentiated services domain can represent different administrative domains or autonomous systems, different trust regions, different network technologies (e.g., cell/frame), hosts and routers, etc. (RFC 2474)	Paper on 'Definitions Related to Mobility'	
Downlink Packet	A data packet sent from an aircraft to a ground based user.	Paper on 'Definitions Related to Mobility'	
DS – Dialog Service	The Dialog Service serves as an interface between the ATN applications and the ATN/OSI or ATN/IPS upper layer protocols via the control function. DS (9880) - The lower service boundary of an application service element (ASE); the service allows two ASEs to communicate, e.g. a CM ground-ASE to communicate with a CM air-ASE.	ARINC REPORT 658	
ES- End System	A system that contains the OSI seven layers and contains one or more end-user application processes.	ICAO Doc 9880	Web-2
FANS-1/A – Future Aircraft Navigation System 1/A	A set of operational capabilities centered around direct datalink communications between the flight crew and air traffic control. (Operators benefit from FANS-1/A in oceanic and remote airspace around the world – removed at web-meeting 2). FANS-1/A Version 1 implements three ATS applications. - a) The ATS Facilities Notification (AFN) application; - b) The Automatic Dependent Surveillance (ADS) application; - c) The Controller Pilot Data Link Communication (CPDLC) application; Check DO 258A (See below):	ARINC REPORT 658	Web-2
FANS-1/A – Future Aircraft Navigation System 1/A	This document provides the interoperability requirements (INTEROP) standard for the implementation of the ATS applications using ARINC 622 data communication, henceforth referred to as FANS-1/A (Version 1) systems. FANS-1/A Version 1 implements three ATS applications. - a) The ATS Facilities Notification (AFN) application; - b) The Automatic Dependent Surveillance (ADS) application; - c) The Controller Pilot Data Link Communication (CPDLC) application;	ED-110A / DO-258A	x
FANS-2/B – Future Aircraft Navigation System 2/B	Term deleted at WG-I Web Meeting/4.	ARINC REPORT 658 [Removed in 858 Draft 8]	Web-2

FANS-3/C – Future Aircraft Navigation System 3/C	Term deleted at WG-I Web Meeting/4.	ARINC REPORT 658 [Removed in 858 Draft 8]	Web-2
FMF – Flight Management Function	A collection of processes or applications that facilitates Area Navigation (RNAV) and related functions to be executed during all phases of flight. The FMF is resident in an avionics computer and automates navigational functions reducing flight crew workload particularly during instrument meteorological conditions. The Flight Management System encompasses the FMF.	ARINC REPORT 658	Web-2
FMS – Flight Management System	A computer system that uses a large database to allow routes to be preprogrammed and fed into the system by a means of a data loader. The system is constantly updated with respect to position by reference to designated sensors. The sophisticated program and its associated database ensure that the most appropriate aids are automatically selected during the information update cycle. The flight management system is interfaced/coupled to cockpit displays to provide the flight crew situational awareness and/or an autopilot.	ARINC REPORT 658	Web-2
Forward Link	Communication link from the Ground Earth Station to the Aircraft UPLINK: from the ground to the satellite DOWNLINK: from the satellite to the aircraft	SESAR1/P1 4.2.4 D09	
Future A/G Data Links	A future ground-based communication system (identified as LDACS), a future satellite-based communication system (identified as Class A SATCOM), and a future system for surface communications at airports with high density traffic and complexity (identified as AeroMACS).	SESAR2020 PJ14.02.04 FRD	Web-2
Global mobility	Global mobility is mobility across access networks. Keep open	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Global (Unicast) Address	A unicast address that is globally unique within the context of a single internet.	Paper on 'Definitions Related to Mobility'	
Ground ATN/IPS Internetwork (backbone)	The Ground ATN/IPS internetwork is the entity responsible for providing links between the Applicative Service Providers on one side and the access networks on the other side. This entity could be under administrative responsibility of the CSPs. Indeed, the Ground ATN/IPS internetwork allows a given Applicative Service Provider to seamlessly provide its services to entities on the mobile subnetwork of an aircraft independently of the access technology used to convey this information to the mobile subnetwork.	SESAR1/P1 5.2.4 D09	Web-2
Ground ATN/IPS Router	A ground device that is used to support ATN/IPS packet forwarding in both air/ground and ground/ground environments.	ARINC REPORT 658	Web-2

Handover (HO)	Handover (HO) is defined as a process where an aircraft is moving across heterogeneous A/G sub-networks, including the ANSP ground networks and is able to switch between the different A/G DLs and access the A/G networks with minimum impact for transactions in transit (e.g. delayed or even loss of transaction). Keep open	SESAR2020 PJ14.02.04 FRD	
Handover	A micro-mobility procedure used when a Mobile Node moves between access points on the same Mobile Network. Handover may be "break before make" or "make before break". In the former case, there may be a temporary loss of communication during the handover. In the latter case, the handover procedure guarantees full continuity of communication.	Paper on 'Definitions Related to Mobility'	
Handover control	The handover control (HC) function is used to provide the "session continuity" for the "on-going" session of the mobile node. Keep open	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Handoff Event	A message sent to an Airborne Router to alert it to a change in the point of access to an A/G network.	Paper on 'Definitions Related to Mobility'	
Host	A host is a node that is not a router. A host is a computer connected to the ATN/IPS that provides end users with services. Update from RFC (Action Mahdu)	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Host-based mobility management.	Term deleted at WG-I Web Meeting/4.	ICAO Doc. 9896 ed2 RTCA/EUROCAE Profiles	Web-2
Infrastructure	This is a general term corresponding to the communication systems that support the application sets. It consists of the Network and Sub-networks functions. Update from 858	ARINC REPORT 658	

Term	Definition	Reference	
Integrity	Integrity is defined as the required probability that a transaction is completed with no undetected errors. Check PBCS -> Same definition	SESAR1/P15.2.4 D04 ED-228A / DO-350A ICAO Doc 9869 (PBCS Manual)	
Inter-domain routing (exterior routing protocol)*	Protocols for exchanging routing information between autonomous systems. In some cases, they may be used between routers within an autonomous system, but they primarily deal with exchanging information between autonomous systems. Subject to review	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Intra-domain routing (interior routing protocol)*	Protocols for exchanging routing information between routers within an autonomous system. Subject to review	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	
Interface	A node's attachment to a (data) link (Source: RFC 8200)	Paper on 'Definitions Related to Mobility'	
Internetwork	A set of interconnected, logically independent heterogeneous subnetworks. The constituent subnetworks are usually administered separately and may employ different transmission media.	ICAO Doc 9880	
Internetwork (or Internet)	A set or group of subnetworks interconnected by routers to create a large or global network that provides end-to-end communication between any two nodes that are part of the same internetwork.	Paper on 'Definitions Related to Mobility'	
IPS	Internet Protocol Suite is the Aeronautical Telecommunication Network based on IP protocols used for the communication of avionics systems and ground systems such as the Air Traffic Control, Airlines, and third parties. Keep open	RTCA/EUROCAE IPS Profiles	
IPS Air/Ground Router	The IPS Air/Ground Router is a ground IPS router that interfaces directly with an adjacent airborne host/router over RF media. In other words, the air/ground router is the first-hop ground router for the airborne host/router.	RTCA/EUROCAE IPS Profiles	Web-2
IPS Boundary Router	The IPS Boundary Router is a ground IPS router that routes IP packets across two interconnecting administrative domains.	RTCA/EUROCAE IPS Profiles	Web-2

IPS Host	The IPS Host is the originator or terminator of IP packets in the IPS System. The IPS Hosts do not route IP packets that are not addressed to it.	RTCA/EUROCA E IPS Profiles	Web-2
IPv6 Host	Any IPv6 node that is not an IPv6 router. (Source: RFC 8200)	Paper on 'Definitions Related to Mobility'	
IPv6 Node	A device that implements IPv6.	ICAO Doc. 9896 ed2 RTCA/EUROCA E IPS Profiles	Web-2
IPS mobile node	An IPS node that uses the services of one or more mobility service providers (MSPs).	ICAO Doc. 9896 ed2 RTCA/EUROCA E IPS Profiles	
Fixed Node	An internet (IPV6) node that is not a Mobile Node. A Fixed Node may also referred to as "stationary".	Paper on 'Definitions Related to Mobility'	
Mobile Node	An internet (IPV6) node that accesses an internetwork using one or more Mobile Networks.	Paper on 'Definitions Related to Mobility'	
IPS Router	The IPS Router is the function that forwards Aviation Internet Protocol (IP) packets in transit from the originating Host to the destination Host through the IPS System. The IPS Router processes IP packets not explicitly addressed to them to perform routing and relaying functions.	RTCA/EUROCA E IPS Profiles	
IPv6 Router	A node that forwards IPv6 packets not explicitly addressed to itself. (RFC 8200)	Paper on 'Definitions Related to Mobility'	
IPS System	The IPS System is the all-encompassing Aviation Internet that provides data transport, networking, routing, addressing, naming, mobility, multilink and information security functions to the aviation services. The IPS System includes the Layer 3 and Layer 4 functions of the ISO/IEC 7498-1 OSI 7-layer Reference Model. The IPS System does not include the underlying subnetwork functions that provide connectivity or the Applications.	RTCA/EUROCA E IPS Profiles	Web-2

Join Event	A message sent to alert an airside or ground side network user that a mobile network is available for use and that an A/G Session has been established.	Paper on 'Definitions Related to Mobility'	
Leave Event	A message sent to alert an airside or ground side network user that a mobile network is no longer usable, and that the A/G Session has been terminated.	Paper on 'Definitions Related to Mobility'	
Legacy A/G Data Links (Legacy AG DL)	Analog VHF (Plain Old ACARS – POA), VHF Digital Link (VDL), HF Digital Link, and Satellite Data Link (Inmarsat Class B, Inmarsat classic aero and Iridium as defined within ICAO Doc 9925 part II and part III	SESAR2020 PJ14.02.04 FRD	Web-2
LINK 2000+ – The EUROCONTROL LINK 2000+ Program	Term deleted at WG-I Web Meeting/4.	ARINC REPORT 658	Web-2
Link-layer address	A link-layer identifier for an interface. Examples include IEEE 802 addresses for LAN links. (this definition has been imported from RFC 4861).	Paper on 'Definitions Related to Mobility'	
Link Local (Unicast) Address	Link-Local addresses are for use on a single link. Link-Local addresses are designed to be used for addressing on a single link for purposes such as automatic address configuration, neighbor discovery, or when no routers are present. (RFC 4291)	Paper on 'Definitions Related to Mobility'	
Link Selection	The link selection function of the Ground ATN/IPS internetwork allows it to select the most adequate path for data to be exchanged with a given mobile subnetwork. In the case of multiple possible access networks to be used to convey the information, the link selection function on the ground ATN/IPS internetwork takes the decision of which access network to use based on a set of policies constructed based on the identification of the type of traffic to be conveyed, the available access networks as well as other operational and regulatory constraints captured in a policy information base.	SESAR1/P15.2.4 D09	
Local mobility	Local mobility is network layer mobility within an access network. Keep open	ICAO Doc. 9896 ed2 RTCA/EUROCA E IPS Profiles	
Location management*	The location management (LM) function is used to keep track of the movement of a mobile node and to locate the mobile node for data delivery.	ICAO Doc. 9896 ed2 RTCA/EUROCA E IPS Profiles	

Term	Definition	Source	
Location (of a Mobile Node)	A Mobile Node's location is determined by the duple "Access Point" and "link Layer Address", where the link layer address is the address of the node on the access network connecting it to the Access Point.	Paper on 'Definitions Related to Mobility'	
Management Plane	Includes the network management functions of all the network elements composing the global network, the FCI in this case. Functions include FCAPS (Fault, Configuration, Accounting, Performance and Security). Check sources	SESAR1/P1 4.2.4 D09	
MASPS – Minimum Aviation System Performance Standards	Specifies characteristics of systems intended for operational use within a defined airspace. Where the systems are global in nature, the system may have international applications that are taken in to consideration. The MASPS describes the system (subsystems / functions) and provides information needed to understand the rationale for system characteristics, operational goals, requirements and typical applications. Definitions and assumptions essential to proper understanding of the MASPS are provided as well as minimum system test procedures to verify system performance compliance (e.g., end-to-end performance verification). [Source: RTCA]	ARINC PROJECT PAPER 858 (Draft 8)	Web-2
Mobile subnetwork	A subnetwork connecting a mobile system with another system not resident in the same mobileplatform. These subnetworks tend to use free-radiating media (e.g. VHF/UHF radio, D band satellite or D bandsecondary surveillance radar) rather than contained media (e.g. wire or coaxial cable); thus they exhibit broadcastcapabilities in the truest sense.	ICAO Doc 9880	
Mobile Network	A Network comprising one or more subnetworks and which provides communication services over a widespread or global geographical area. While a Mobile Network is typically constructed using wireless subnetworks, this is not essential. A Mobile Node may have an active interface to more than one Mobile Network, in which case it has a distinct location on each such Mobile Network.	Paper on 'Definitions Related to Mobility'	
Mobility service provider (MSP)	A service provider that provides mobile IPv6 service within the ATN/IPS. An MSP is an instance of an administrative domain (AD) which may be an air communications service provider (ACSP), air navigation service provider (ANSP), airline, airport authority, government organization, etc.	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	Web-2

Mobility Management Service	The service providing mobility management to a Mobile Node.	Paper on 'Definitions Related to Mobility'	
Mobility	In an ATN/IPS context, Mobility is a general term for either micro-mobility or macro-mobility.	Paper on 'Definitions Related to Mobility'	
Mobility Context	is the collection of information required to provide Mobility Management support for a given Mobile Node. (RFC 7333)	Paper on 'Definitions Related to Mobility'	
Macro-Mobility	The ability of a Mobile Node to move between or make concurrent use of two or more Mobile Networks without changing its global IP Address(es).	Paper on 'Definitions Related to Mobility'	
Micro-Mobility	The ability of a Mobile Node to move between access points in the same Mobile Network without changing its global or link local IP Address(es).	Paper on 'Definitions Related to Mobility'	
Mobility Management	The processes that co-ordinate Mobility and ensure that data packets addressed to a global unicast or multicast address can be routed to a Mobile Node regardless of its current location on the internet.	Paper on 'Definitions Related to Mobility'	
Mobility Management Protocol	A communications protocol used for Mobility Management.	Paper on 'Definitions Related to Mobility'	
MOPS – Minimum Operational Performance Standards	Standards produced by RTCA that describe typical equipment applications and operational goals and establish the basis for required performance. Definitions and assumptions essential to proper understanding are included as well as installed equipment tests and operational performance characteristics for equipment installations. MOPS are often used by the FAA as a basis for certification. Check EUROCAE	ARINC REPORT 658	

Term	Definition	Source	
Multicast (Group) Address	An identifier for a set of interfaces (typically belonging to different nodes). A packet sent to a multicast address is delivered to all interfaces identified by that address. (RFC 4291)	Paper on 'Definitions Related to Mobility'	
Multihoming	Multihoming is the practice of connecting a host or a computer network to more than one network. ATN/IPS shall support multihoming.	ICAO WGI Mobility Subgroup	
Multihomed Host	A Host computer with more than one interface (IP Address) to the internet.	Paper on 'Definitions Related to Mobility'	
Multilink	Concept that defines the use of concurrent, existing and future communication links between air and ground (e.g., AeroMACS, LDACS, and satcom), depending on the defined criteria (performance needs).	ARINC REPORT 658	
Multilink*	Ability to use all available A/G sub-networks in order to provide the specified performance Keep open	ICAO WGI Mobility Subgroup	
Multilink	A scenario where two or more separate data links are used to provide alternative paths to the same destination.	Paper on 'Definitions Related to Mobility'	
Multilink System	An interacting combination of elements to accomplish the Multi Link Operational Concept	SESAR2020 PJ14.02.04 FRD	
NAS – National Airspace System	One of the most complex aviation systems in the world that enables safe and expeditious air travel in the United States and over large portions of the world's oceans.	ARINC REPORT 658	Web-2
Network	The Network function is decomposed into two main sub-functions; a router that routes data packets from a source to a destination and the communication manager, which is responsible for the network and link selections.	ARINC REPORT 858 (Draft 8)	
Network	A group of two or more devices (nodes) that communicate using a common set of communication protocols.	Paper on 'Definitions Related to Mobility'	
Network Layer	The Network Layer is based on Internet Protocol (IP) ensuring global routing over interconnected packet-switched communication networks.	ARINC REPORT 658	
Network-based mobility management*	A mobility management (MM) scheme in which the MM signalling is performed by the network entities on behalf of the mobile node.	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	

Term	Definition	Source	
Network Point of Attachment	A current Location of a Mobile Node.	Paper on 'Definitions Related to Mobility'	
OSI – Open System Interconnection	Term deleted at WG-I Web Meeting/4.	ARINC REPORT 658 [Removed in 858 Draft 8]	Web-2
Parallel Utilisation	Under parallel utilisation in a multilink scenario, packets are sent concurrently over each available data link that provides a route to the required destination. The receiving node must be able to detect and discard duplicate packets.	Paper on 'Definitions Related to Mobility'	
Performance Based Multilink (PBM)	A multilink scenario where two or more data links are used to deliver a greater overall availability and/or capacity, or in an environment where different data links provide different integrity or transit delay and there is consequential a need to select the route through a network separately for each data flow.	Paper on 'Definitions Related to Mobility'	
Physical and Link Layers	They are associated with the Sub-networks and handle the physical interface with the transmission medium (i.e., radio links).	ARINC REPORT 858 (Draft 8)	
PIESD – Passenger Information and Entertainment Services Domain	It is characterized by the need to provide passenger entertainment and network services. Beyond traditional IFE systems, it may also include passenger device connectivity systems, Passenger Flight Information Systems (PFIS), broadband television or connectivity systems.	ARINC REPORT 658	Web-2
POA – Plain Old ACARS	Term deleted at WG-I Web Meeting/4.	ARINC REPORT 658 [Removed in 858 Draft 8]	Web-2
Primary A/G Data Link	A future DL being used in a given airspace for the transfer of operational service messages, used by an application. There may be several primary DLs in a given airspace.	SESAR2020 PJ14.02.04 FRD	Web-2
QoS Provision	While the selection of the appropriate QoS to be applied for the treatment of a certain information packet is defined by the end systems that generate the packets (or entities close to these systems on the data path); the provision of the adequate level of QoS is distributed along the data path. Indeed, differentiated treatment of packets in network equipment needs to be provided in order for prioritization to be achieved, it is the case in the access networks.	SESAR1/P15.2.4 D09	
Quality of Service (QoS)	Is a framework, where the overall performance of an application or a computer network is stated. For an application, the set of parameters that characterises the QoS (Integrity, Availability, Delay, Continuity) is different from the QoS of a computer network (e.g. bit rate, throughput, delay, etc.).	SESAR1/P15.2.4 D04	

Term	Definition	Reference	
Reverse or return Link	Communication link from the aircraft to the Ground Earth Station UPLINK: from the aircraft to the satellite. DOWNLINK: from the satellite to the ground	SESAR1/P1 4.2.4 D09	Web-2
RGB Network domain	In an SBM scenario, each data link is assigned to an RGB Network domain such that there are no common failure modes between that data link and a data link in a different RGB Network domain.	Paper on 'Definitions Related to Mobility'	
Router	A router is a node that forwards Internet protocol (IP) packets not explicitly addressed to itself. A router manages the relaying and routing of data while in transit from an originating end system to a destination end system.	ICAO Doc. 9896 ed2 RTCA/EUROCAE IPS Profiles	Web-2
Routing Function	Term deleted at WG-I Web Meeting/4.	SESAR1/P1 5.2.4 D09	Web-2
Safety Based Multilink (SBM)	A multilink scenario where two or more independent data links are used to mitigate hazards with a severity level greater than the severity level for which they are individually certified for.	Paper on 'Definitions Related to Mobility'	
SARPS – Standards and Recommended Practices	Produced by ICAO, they become the international standards for member states. As the name implies, they are only "recommended" practices. It is up to each member states to decide how, if, and when to implement them. Check Annex 10 definition –> See below	ARINC REPORT 658	
SARPS – Standards and Recommended Practices	Standards and Recommended Practices adopted by the Council under the provisions of the Convention. They are defined as follows: Standard: Any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38. Recommended Practice: Any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Convention.	ICAO Annex 10, Volume III	Web-2
Satcom – Satellite Communications	Communication service providing data, voice, and fax transmission via satellite. Allows aircraft to communicate in BLOS areas. Check Annex 10 definition. –>See below definition of AMSS and AMS(R)S	ARINC REPORT 658	Web-2

Term	Definition	Reference	Status
AMSS - Aeronautical mobile-satellite service	A mobile-satellite service in which mobile earth stations are located on board aircraft; survival craft stations and emergency position-indicating radio beacon stations may also participate in this service.	ICAO Annex 10, Volume II	Web-2
AMS(R)S - Aeronautical mobile-satellite (R)* service	An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.	ICAO Annex 10, Volume II ICAO Doc 10037 (GOLD)	Web-2
Secondary A/G Data Link	A future DL, which is activated and used for the transfer of operational service messages, used by an application, only upon the primary link has become unavailable or degraded.	SESAR2020 PJ14.02.04 FRD	Web-2
Serial Utilisation	Under serial utilisation, only one of the available data links in a multilink scenario is used at any one time. Either some PBM management function or end-to-end acknowledgements are used to determine data link availability. In the latter case, the same data link is used to both send and receive data and the successful receipt of an acknowledgement indicates that the data link is available for use.		
SESAR – Single European Sky ATM Research	European air traffic control infrastructure modernization program. SESAR aims at developing the new generation ATM system capable of ensuring the safety and fluidity of air transport worldwide over the next 30 years. Check official definition	ARINC REPORT 658	
Sub-network	The sub-networks correspond to all radio systems that are used to communicate between the aircraft and the ground. Check Annex 10 (see below) , DOC 9880 (not found), DOC 9705 Part 1 (see below) etc , DOC 9776 (see below), IETF	ARINC REPORT 658	x
Subnetwork (SN)	An actual implementation of a data network that employs a homogeneous protocol and addressing plan and is under control of a single authority.	ICAO Doc 9705 ICAO Annex 10, Volume III, Chapter 5 (Mode S)	Web-2
Sub-network	Global ground network infrastructure interconnecting individual access providers and Ground Sub-networks.	SESAR1/P15.2.4 D09	x
Subnetwork connection	A long-term association between an aircraft DTE and a ground DTE using successive virtual calls to maintain context across links handoffs.	ICAO Doc 9776 ICAO Annex 10, Volume III, Chapter 6 (VDL)	Web-2

Term	Definition	Reference	
Subnetwork (SN) *Network (N)*	See Network (N). *The word "network" and its abbreviation "N" in ISO 8348 are replaced by the word "subnetwork" and its abbreviation "SN", respectively, wherever they appear in relation to the subnetwork layer packet data performance.*	ICAO Annex 10, Volume III, Chapter 4 (AMS(R)S)	**Web-2**
Transaction Time	The transaction time is the time to complete a transaction from an end-to-end perspective Check DO 350A Check PBCS -> See below	SESAR1/P1 5.2.4 D04	
Transaction Time	The maximum time for the completion of a proportion of operational communication transactions after which the initiator should revert to an alternative procedure. Two values are specified: a) RCP nominal time (TT). The maximum nominal time within which 95 per cent of operational communication transactions is required to be completed; and b) RCP expiration time (ET). The maximum time for the completion of the operational communication transaction after which the initiator is required to revert to an alternative procedure.		
Transport Layer	The transport layer protocols are used to provide communication services over the ATN/IPS system. Those include TCP for reliable transport services and UDP that is used to provide best effort service.	ARINC REPORT 658	**Web-2**
Transport Layer	The fourth layer of the OSI reference model which ensures that the data are reliably delivered to the correct destination regardless of which network layer protocol and underlying subnetworks are being used.	ICAO 9880, Part III	x
Unicast Address	An identifier for a single interface. A packet sent to a unicast address is delivered to the interface identified by that address. (Source: RFC 4291).	Paper on 'Definitions Related to Mobility'	
Update Event	A message sent by ground NME to a ground user to alert it to a change in the Quality of Service provided either to all airside users or to a specific airside user.	Paper on 'Definitions Related to Mobility'	
Uplink Packet	A data packet sent from a ground user to an aircraft.	Paper on 'Definitions Related to Mobility'	
User Plane	Data generated and received by the user, i.e. operational messages etc. Check sources	SESAR1/P1 4.2.4 D09	

Term	Definition	Source	
VDL – VHF Data Link	Also known as VHF Digital Link, VDL is the LOS sub-network supporting data communications that are sent over VHF frequencies. The traditional VHF voice radio can be used in conjunction with a data modem to send data messages over VHF frequencies.	ARINC REPORT 658	Web-2
VHF digital link (VDL)	A constituent mobile subnetwork of the aeronautical telecommunication network (ATN), operating in the aeronautical mobile VHF frequency band. In addition, the VDL may provide non-ATN functions such as, for instance, digitized voice.	ICAO Annex 10 – Volume I	Web-2
VDLM2 – VHF Data Link Mode 2	A datalink-only service designed to digitize VHF and improve the speed of the VHF link. VDLM2 is intended for use within the US and Europe as an interim datalink solution for enroute ATC functions. VDLM2 provides a 31.5 kbps channel rate.	ARINC REPORT 658	
Vertical Handover	Vertical handover (or vertical handoff) handover is a technique enabling the handover of IP sessions between two different sub-networks that do not share the same infrastructure (e.g., VHF, HF, L-band Satcom). It is triggered by the communication management function when, for instance, a radio bearer experiences a degradation of the signal quality requiring the system to switch to another sub-network.	ARINC REPORT 658	
Vertical Handover	This is a special case of Macro-Mobility when a Mobile Node loses communication with one Mobile Network and replaces it with an alternative. This may be "break before make" when there is a period during which the Mobile is connected to neither, or "make before break" when there is an overlap period during which the Mobile Node is connected to both.	Paper on 'Definitions Related to Mobility'	
Wireless subnetwork	A subnetwork that provides communication between network nodes without using cabling of any sort – hence they are "wireless". Examples include WiFi, VDL2, cellular telephony and SATCOM.	Paper on 'Definitions Related to Mobility'	