

**CIVIL AVIATION REGULATIONS**

**SURINAME**

**PART 18 - AIR TRAFFIC SERVICES**

**VERSION 2.0**

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## CONTENTS

<b>18.1</b>	<b>PRELIMINARY PROVISIONS</b> .....	<b>6</b>
18.1.1	Applicability .....	6
18.1.2	Access to ATS facilities .....	6
18.1.3	Production of Documents .....	6
18.1.4	Provision of Air Navigation Services.....	7
18.1.5	Manual of Air Navigation Services Operations .....	9
18.1.6	Air Navigation Services .....	10
18.1.7	Air Navigation Services contingency plan .....	11
18.1.8	Alternative designated service provider.....	11
18.1.9	Units of measurement.....	11
<b>18.2</b>	<b>GENERAL</b> .....	<b>11</b>
18.2.1	Establishment of air traffic services .....	11
18.2.2	Objectives of air traffic services .....	11
18.2.3	Divisions of the air traffic services .....	12
18.2.4	Determination of the need for air traffic services .....	12
18.2.5	Designation of the portions of the airspace and controlled aerodromes..... where air traffic services will be provided .....	13
18.2.6	Classification of airspaces .....	13
18.2.7	Performance Based Navigation (PBN) Operations.....	14
18.2.8	Performance Based Communication (PBC) Operatons .....	14
18.2.9	Performance Based Surveillance (PBS) Operations .....	14
18.2.10	Establishment and designation of the units providing AirTraffic Services.....	15
18.2.11	Specifications for flight information regions, control areas and control zones .....	15
18.2.12	Identification of air traffic services units and airspaces.....	17
18.2.13	Establishment and identification of ATS routes .....	17
18.2.14	Establishment of change-over points .....	17
18.2.15	Establishment and identification of significant points.....	18
18.2.16	Establishment and identification of standard routes for taxiing aircraft.....	18
18.2.17	Coordination between the operator and air traffic services .....	18
18.2.18	Coordination between military authorities and air traffic services .....	18
18.2.19	Coordination of activities potentially hazardous to civil aircraft.....	19
18.2.20	Aeronautical data.....	20
18.2.21	Coordination between meteorological and air traffic services authorities .....	20
18.2.22	Coordination between aeronautical information services and air traffic services authorities .....	21
18.2.23	Minimum flight altitudes .....	22
18.2.24	Service to aircraft in the event of an emergency .....	22
18.2.25	In-flight contingencies.....	23
18.2.26	Time in air traffic services.....	24
18.2.27	Establishment of requirements for carriage and operation of pressure-altitude .....	25
	reporting transponders .....	25
18.2.28	Fatigue Management.....	25
18.2.29	Safety Management .....	26
18.2.30	Common reference systems.....	26
18.2.31	Language proficiency .....	26
18.2.32	Contingency arrangements .....	27
18.2.33	Identification and delineation of prohibited, restricted and danger areas.....	27
18.2.34	Instrument Flight Procedure design Service.....	27

<b>18.3</b>	<b>AIR TRAFFIC CONTROL SERVICES .....</b>	<b>28</b>
18.3.1	Application .....	28
18.3.2	Provision of air traffic control service.....	28
18.3.3	Operation of air traffic control service.....	28
18.3.4	Separation minima.....	30
18.3.5	Responsibility for control .....	31
18.3.6	Transfer of responsibility for control .....	30
18.3.7	Air traffic control clearances .....	32
18.3.8	Control of persons and vehicles at aerodromes .....	35
18.3.9	Provision of radar and ADS-B .....	36
18.3.10	Use of surface movement radar (SMR).....	36
<b>18.4</b>	<b>FLIGHT INFORMATION SERVICES .....</b>	<b>36</b>
18.4.1	Application for Flight Information services.....	36
18.4.2	Scope of flight information service.....	36
18.4.3	Operational flight information service broadcasts.....	37
18.4.4	VOLMET broadcasts and D-VOLMET services.....	44
<b>18.5</b>	<b>ALERTING SERVICES .....</b>	<b>45</b>
18.5.1	Application for alerting service.....	45
18.5.2	Notification of rescue coordination centers.....	45
18.5.3	Use of communication facilities .....	47
18.5.4	Plotting aircraft in a state of emergency .....	47
18.5.5	Information to the operator .....	47
18.5.6	Information to aircraft operating in the vicinity of an aircraft in a state of emergency.....	47
<b>18.6</b>	<b>AIR TRAFFIC SERVICESREQUIREMENTS FOR COMMUNICATIONS.....</b>	<b>47</b>
18.6.1	Aeronautical mobile service (air-ground communications).....	47
18.6.2	Aeronautical Fixed service (ground-ground communication).....	49
18.6.3	Surface movement control service .....	52
18.6.4	Aeronautical radio navigation service.....	52
<b>18.7</b>	<b>AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION .....</b>	<b>53</b>
18.7.1	Meteorological information .....	53
18.7.2	Information on aerodrome conditions and the operational status of associated facilities.....	55
18.7.3	Information on the operational status of navigation services.....	55
18.7.4	Information on unmanned free balloons .....	55
18.7.5	Information concerning volcanic activity .....	55
18.7.6	Information concerning radioactive materials and toxic chemical "clouds".....	56
<b>18.8</b>	<b>ATS ORGANISATION REQUIREMENTS.....</b>	<b>56</b>
18.8.1	Human Resource Management.....	56
18.8.2	Requirement.....	56
18.8.3	Training and Assessment for Air Traffic Controllers .....	57
18.8.4	Safety Management System .....	62
<b>18.9</b>	<b>ATS OPERATING REQUIREMENTS .....</b>	<b>63</b>
18.9.1	ATS operations manual.....	63
18.9.2	Denial of ATC clearance.....	63
18.9.3	Deviation from an ATC clearance.....	63

18.9.4	Suspension of VFR operations.....	63
18.9.5	Altimeter setting procedures.....	63
18.9.6	Flight plans.....	64
18.9.7	Action after serious incident or accident.....	64
18.9.8	Incidents.....	64
18.9.9	Records.....	65
18.9.10	Logbooks and position logs.....	66
18.9.11	Shift administration.....	66
18.9.12	Withdrawal or reduce the hours of service.....	67

<b>IMPLEMENTING STANDARDS</b> .....	<b>IS-18-1</b>
IS: 18.2.6	ATS airspace classes — services provided and flight requirements..... IS-18-2
IS: 18.2.7	Principles governing the identification of Navigation Specification and the identification of ATS routes other than standard departure and arrival routes..... IS-18-3
IS: 18.2.13	Principles governing the identification of standard departure and arrival routes and associated procedures..... IS-18-5
IS: 18.2.15	Principles governing the establishment and identification of significant points..... IS-18-9
IS: 18.2.28.1.a	Prescriptive Fatigue Management Regulations..... IS-18-11
IS: 18.2.29.1.b	Fatigue Management System (FRMS) Requirements..... IS-18-13
IS: 18.2.32	ATS contingencies..... IS-18-15
IS: 18.2.34	Suriname Responsibilities concerning an Instrument Flight Procedure Design Service..... IS-18-18
IS 18.8.4.2	Safety Management System Framework..... IS-18-18
IS: 18.9.1	Operations manual of Air Traffic Management..... IS-18-19

## 18.1 PRELIMINARY PROVISIONS

### 18.1.1 Applicability

1. These Regulations apply to Air Traffic Service Providers.  
These Regulations prescribe the detailed technical provisions which are intended to form the basis of Air Traffic Services within the Suriname Flight Information Region. The Air Navigation Services provider (ANSP) is required to comply with the provisions contained in the CARS. The ANSP shall document local procedures in their own operational manuals, to ensure the maintenance of and compliance with standards.
2. These Regulations do not apply to:
  - (a) a person who is providing an air traffic service in the course of his or her duties for the Military; or
  - (b) any air traffic service provided by the Military.

The provisions in this CARS PART are based on– the Standards of ICAO Annex 11 and shall be read in conjunction with:  
the Procedures for Air Navigation Services - Air Traffic Management (PANS-ATM, ICAO Doc 4444) and the Air Traffic Services Manual (ICAO Doc 9426)

3. In addition to the CARS, the following may also be issued as and when required to supplement the CARS
  - a) A Decision Director CASAS (DDC) – this is a mandatory requirement to be complied with by the ANSP. It is published for purposes of establishing implementing regulations which are too detailed to include in the CARS.
  - b) ACASAS Advisory Pamphlet (CAP) – this is published for purposes of promulgating supplementary guidance materials to the standards in the CARS. The publications are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means, of complying with the CARS. CAP's may explain certain regulatory requirements by providing interpretive and explanatory materials.

### 18.1.2 Access to ATS facilities

- a) The CASAS shall carry out safety inspections and audits on documents and records of the air traffic services provider which may be necessary to determine compliance to these Regulations.
- b) An inspector of the CASAS shall have unrestricted access to the facilities, installations, records and documents of the air traffic service provider to determine compliance with these regulations.

### 18.1.3 Production of documents

18.1.3.1 The air traffic service provider shall hold copies of the relevant technical manuals, and all other documents, necessary for the provision and operation of the services.

18.1.3.2 The air traffic services provider shall establish a procedure to control all the documentation required by paragraph 18.1.3.1 The procedure shall ensure that:

- a) all incoming documentation is reviewed, and actioned as required, by authorised personnel; and
- b) all documentation is reviewed and authorised before issue; and
- c) current issues of all relevant documentation are available to personnel at all locations where they need access to such documentation for the provision and operation of air traffic services; and
- d) all obsolete documentation is promptly removed from all points of issue or use; and
- e) any obsolete documents retained as archives are suitably identified as obsolete; and
- f) changes to documentation are reviewed and approved by authorised personnel who shall have access to pertinent background information upon which to base their review and approval; and
- g) the current version of each item of documentation can be identified to preclude the use of out-of-date editions.

**18.1.4 PROVISION OF AIR NAVIGATION SERVICES (ATS)****18.1.4.1 Requirements for the provision of air navigation services (ATS)**

A person shall not provide air navigation services (ATS) unless:

- (1) he is designated to do so or is approved by the CASAS issued under these Regulations; and
- (2) the services are provided in accordance with:
  - (i) the requirements specified by the CASAS in the applicable CARS Parts or any other publication of the CASAS; and
  - (ii) the procedures specified in the Manual of Air Navigation Service Operations (MANSOPs).

**18.1.4.2 Application to provide air navigation services (ATS)**

A person or company wishing to provide air navigation services shall make an application in a form specified by the CASAS and such application shall be accompanied by:

- a) the applicant's Manual of Air Navigation Service Operations (MANSOPs) provided under CARS Part 18.1.5.1 of these Regulations for approval;
- b) a written statement setting out the services and locations at which they shall be provided;
- c) the safety management system manual;
- d) the quality management system manual;
- e) the procedures to meet the requirements of the *Civil Aviation Regulations Suriname*;
- f) a written statement on financial capability to provide the service;
- g) the insurance policy in force in relation to the services provided; and
- h) fees as specified by the Authority.

**18.1.4.3 Designation of Air Navigation Service Provider (ATS) and issuance of approval.**

1. The Authority shall, before issuing an approval, or designating an Air Navigation Service Provider (ANSP) (ATS), be satisfied that:
  - (a) the personnel of the applicant are adequate in number and have the necessary competency to provide the service;
  - (b) the MANSOPs prepared and submitted with the application contains all the relevant information;
  - (c) the facilities, services and equipment are established in accordance with these Regulations;
  - (d) the operating procedures make satisfactory provision for the safety of aircraft;
  - (e) an approved safety management system is in place;
  - (f) an approved quality management system is in place;
  - (g) the applicant has approved procedures to meet the requirements of the *Civil Aviation Regulations Suriname (CARS)*;
  - (h) the applicant has financial capability to provide the service; and
  - (i) the applicant has insurance policy in force in relation to the services provided.
2. Subject to the CARS, the CASAS may set any other conditions as may be deemed necessary.

3. The provision of air navigation services shall be subject to compliance with these Regulations and any other condition as may be specified or notified by the CASAS.

4. The CASAS may refuse to permit any person or company or grant approval to an applicant, and where the CASAS refuses, it shall notify the person, company or applicant in writing, of the reasons for the refusal, not later than fourteen days after making that decision.

#### **18.1.4.4 Format of approval.**

Any approval shall be in written format and shall include the following information:

- a) the ANSP's name and physical and mailing address of its principal place of business;
- b) the type of services to be provided;
- c) the location of services to be provided;
- d) for air traffic service the service to be provided within a particular airspace or controlled aerodrome designated to the provider by the Authority;
- e) conditions of approval; and
- f) effective and expiry dates of the approval.

#### **18.1.4.5 Transfer of designation or approval.**

A designation or approval to provide air navigation services issued under these Regulations shall not be transferable.

##### **18.1.4.5.1 Suspension, variation and cancellation of approvals**

1. The CASAS may, suspend provisionally, pending further investigation, any approval issued under these Regulations, if it considers that:
  - a) a relevant provision of these Regulations, or a condition in the certificate, has not been or is not being complied with;
  - b) false or materially incorrect information was given to the CASAS in the application for the approval; or
  - c) it is in the public interest to do so.
  
2. The CASAS may, upon the completion of an investigation which has shown sufficient ground to the Authority's satisfaction suspend, vary or cancel any approval issued under these Regulations.

#### **18.1.4.6 Register of Air Navigation Services providers (ATS)**

- (1) The CASAS shall keep and maintain a register showing:
  - (i) name of the ANSP;
  - (ii) date of issue or renewal of the approval;
  - (iii) type of service offered by the ANSP;
  - (iv) expiry date of the approval;
  
  - (v) date of variation, suspension or cancellation of the approval, if applicable
  - (vi) physical and postal address of the holder of the ANSP; and



- (vii) any other particulars as may be determined by the by the CASAS.
- (2) Any changes in the particulars recorded shall be entered in the register by the CASAS.
- (3) The register shall be a public document and any particular entered may be obtained upon payment of such a fee as may be specified by the CASAS.

### 18.1.5 MANUAL OF AIR NAVIGATION SERVICES OPERATIONS

#### 18.1.5.1 Manual of Air Navigation Services Operations (MANSOPS).

- (1) The Manual of Air Navigation Services Operations (MANSOPS) submitted under these Regulations shall be:
- (a) type written;
  - (b) signed by the service provider;
  - (c) in a format that is easy to revise and includes a list of effective pages; and
  - (d) organized in a manner that facilitates evaluation and approval processes.
- (2) An ANSP shall keep at least one approved copy of the manual at the principal place of business.

#### 18.1.5.2 Contents of MANSOPS

A Manual of Air Navigation Service Operations (MANSOPS) shall contain all information and instructions necessary to enable the personnel of an air navigation service provider to perform their duties and in particular shall include:

- (a) introduction;
- (b) management organization;
- (c) services to be provided;
- (d) personnel requirements and their responsibilities;
- (e) training and performance assessment of staff and how that information is tracked;
- (f) Safety Management System and Quality Management System;
- (g) contingency plans developed for part or total system failure;
- (h) compliance with the Civil Aviation Regulations Suriname (CARS) as required;
- (i) facilities and equipment and how they are installed and maintained;
- (j) fault and defect reporting;
- (k) maintenance of documents and records;
- (l) facility operations and maintenance plan and procedures;
- (m) search and rescue responsibilities and coordination, operations, plan and procedures;
- (n) the proposed hours of service;
- (o) systems and procedures in the provision of air navigation services; and
- (p) any other information requested by the CASAS.

#### 18.1.5.3 Accuracy of MANSOPS

- (1) For the purposes of maintaining the accuracy of the information in the MANSOPS the :
- (a) ANSP shall whenever necessary, amend the manual; or
  - (b) CASAS may issue a written directive requiring the holder of a certificate to amend the manual.

(2) Notwithstanding the above (1), the ANSP shall submit the proposed amendment to the CASAS for approval, before the manual is amended.

## **18.1.6 AIR NAVIGATION SERVICES**

### **18.1.6.1 Air Navigation Services Provider**

The CASAS shall designate a service provider in accordance with these Regulations to provide:

- a) air traffic services;
- b) communication, navigation and surveillance systems;
- c) meteorological services for air navigation;
- d) aeronautical search and rescue coordination;
- e) aeronautical information services, aeronautical maps and charts; or
- f) for the construction of visual and instrument flight procedures.

### **18.1.6.2 Air Navigation Services facilities and standard systems**

A designated air navigation service provider shall:

(a) provide in the designated portion of airspace and aerodromes, facilities for the provision of air navigation services; and

(b) adopt and put into operation the appropriate standard systems, operational practices and rules as specified by the CASAS.

### **18.1.6.3 Approval of Air Navigation Services Facilities**

A person shall not install, maintain and operate air navigation service facilities in the designated airspaces and aerodromes without approval of the Authority.

### **18.1.6.4 Safety inspections on Air Navigation Services**

(1) The CASAS shall carry out safety inspections of air navigation facilities, services, documents and records of the air navigation service provider which may be necessary to determine compliance with these Regulations.

(2) The safety inspections shall be carried out in accordance with the requirements specified by the CASAS.

(3) The CASAS may impose operating restrictions or sanctions on the operations of an ANSP in the event of nonconformance with the approval requirements or any unresolved safety concerns.

### **18.1.6.5 Access to air navigation facilities.**

An inspector of the CASAS shall have unrestricted access to the facilities, installations, records and documents of the air navigation services and the air navigation meteorological service provider to determine compliance with these Regulations.

### **18.1.6.6 Production of documents**

An ANSP shall produce any relevant documents under its possession if requested by an authorized person within seventy-two hours of such request.

### 18.1.7 Air Navigation Services contingency plan

- (1) An ANSP shall develop and maintain contingency plans for implementation in the event of disruption or potential disruption, of air navigation services in the airspace for which the ANSP is responsible.
- (2) The ANSP shall liaise with other air navigation service providers in adjacent or contiguous airspaces while developing contingency plans.
- (3) The contingency plan shall include :
  - (a) the actions to be taken by the ANSP's personnel responsible for providing the service;
  - (b) possible alternative arrangements for providing the service; and
  - (c) the arrangements for resuming normal operations for the service.
- (4) The contingency plan shall be developed in accordance with the requirements specified by the CASAS.

### 18.1.8 Alternative designated service provider

- (1) The CASAS may, when considered necessary and in the public interest, designate an alternative service provider for a specified period to provide air navigation services.

### 18.1.9 Units of measurement

The units of measurement used in air and ground operations shall be as specified by the CASAS.

## 18.2 GENERAL

### 18.2.1 Establishment of air traffic services.

18.2.1.1 Air traffic Services shall be provided:

- over entire airspace above Surinamese Territory including territorial water,
- the airspace delegated to Suriname by another State and
- the airspace over high seas for which the responsibility has been delegated by ICAO as per Regional Air Navigation Agreement. Such Air Traffic Services shall be established and provided in accordance with the provisions of this CARS.

18.2.1.2 Those portions of the airspace over high seas or in airspace of undetermined sovereignty where air traffic services will be provided shall be determined on basis of regional air navigation agreements. Suriname on accepting the responsibility to provide air traffic services in such portions of airspace shall arrange for the services to be established and provided in accordance with the provisions of this CARS.

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.

18.2.1.3 The Civil Aviation department Suriname is responsible for providing Air Traffic Services in Suriname. No other agency shall provide an air traffic service unless approved by the CASAS.

18.2.1.4 The air traffic service provider shall publish detail of each ATS that is provided in a particular airspace or for a particular aerodrome, including the hours during which the service is available. This information shall be published in the AIP of Suriname.

### 18.2.2 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.

### 18.2.3 Divisions of the air traffic services

The air traffic services shall comprise three services identified as follows.

18.2.3.1 The air traffic control service, provided to accomplish objectives a), b) and c) of 18.2.2, 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 18.2.3.1 b) and c), in order to accomplish objectives a) and c) of 18.2.2;

(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 18.2.2;

(c) *Aerodrome control service*: the provision of air traffic control service for aerodrome traffic, except for those parts of flights described in 18.2.3.1 b), in order to accomplish objectives a), b) and c) of 18.2.2.

18.2.3.2 The flight information service is provided to accomplish objective d) of 18.2.2.

18.2.3.3 The alerting service is provided to accomplish objective e) of 18.2.2.

### 18.2.4 Determination of the need for air traffic services

18.2.4.1 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.

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 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.

18.2.4.2 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.

## 18.2.5 Designation of the portions of the airspace and controlled aerodromes where air traffic services must be provided

18.2.5.1 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.

18.2.5.2 The designation of the particular portions of the airspace or the particular aerodromes shall be as follows:

**a. 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.

**b. 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:

*Note.— The distinction between control areas and control zones is made in 18.2.11.*

1. Those portions of controlled airspace wherein it is determined that air traffic control service will also be provided to VFR flights shall be designated as Classes B, C, or D airspace.

2. Where designated within a flight information region, control areas and control zones shall form part of that flight information region.

**c. 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.

## 18.2.6 Classification of airspaces

18.2.6.1 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 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.

18.2.6.2 The Airspace classification applicable in Suriname shall be published in the AIP.

18.2.6.2.1 The requirements for flights within each class of airspace shall be as shown in the table in IS 18.2.6

*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.*

18.2.6.3 Airspace classification shall be published in the AIP of Suriname. (ENR 1.4)

## **18.2.7 Performance-based navigation (PBN) operations**

18.2.7.1 In applying performance-based navigation, navigation specifications shall be prescribed by CASAS. When applicable, the navigation 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.

18.2.7.2 Performance-based navigation operations shall be implemented as soon as practicable.

18.2.7.3 The prescribed navigation specification shall be appropriate to the level of communications, navigation and air traffic services provided in the airspace concerned.

*Note.— Applicable guidance on performance-based navigation and implementation is published in the Performancebased Navigation (PBN) Manual (Doc 9613).*

## **18.2.8 Performance-based communication (PBC) operations**

18.2.8.1 In applying performance-based communication (PBC), RCP specifications shall be prescribed by CASAS. When applicable, the RCP specification(s) shall be prescribed on the basis of regional air navigation agreements.

*Note.— In prescribing an RCP specification, limitations may apply as a result of communication infrastructure constraints or specific communication functionality requirements.*

18.2.8.2 The prescribed RCP specification shall be appropriate to the air traffic services provided.

*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).*

## **18.2.9 Performance-based surveillance (PBS) operations**

18.2.9.1 In applying performance-based surveillance (PBS), RSP specifications shall be prescribed by CASAS. When applicable, the RSP specification(s) shall be prescribed on the basis of regional air navigation agreements.

*Note.— In prescribing an RSP specification, limitations may apply as a result of surveillance infrastructure constraints or specific surveillance functionality requirements*

18.2.9.2 The prescribed RSP specification shall be appropriate to the air traffic services provided.

18.2.9.3 Where an RSP specification has been prescribed by CASAS for performance-based surveillance, ATS units shall be provided with equipment capable of performance consistent with the prescribed RSP specification(s).

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).

### 18.2.10 Establishment and designation of the units providing air traffic services

The air traffic services shall be provided by units established and designated as follows:

18.2.10.1 Flight information centers shall be established by the ANSP 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.

Note: This does not preclude delegating to other units the function of providing certain elements of the flight information service.

18.2.10.2 Air traffic control units shall be established by the ANSP 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 18.3.2.

### 18.2.11 Specifications for flight information regions, control areas and control zones

18.2.11.1 The delineation of airspace, wherein air traffic services are to be provided, shall be related to the nature of the route structure and the need for efficient service rather than to national boundaries.

*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 18.2.1.1). 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.*

*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.*

#### 18.2.11.2 Flight information regions

18.2.11.2.1 Flight information regions shall be delineated to cover the whole of the air route structure to be served by such regions.

18.2.11.2.2 A flight information region shall include all airspace within its lateral limits, except as limited by an upper flight information region.

18.2.11.2.3 Where a flight information region is limited by an upper flight information region, the lower limit specified for the upper flight information region shall constitute the upper vertical limit of the flight information region and shall coincide with a VFR cruising level of the tables in IS 18.2.11.2.3

*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.*

#### 18.2.11.3 Control areas

18.2.11.3.1 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.

*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.*

18.2.11.3.2 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).

18.2.11.3.2.1 The lower limit of a control area shall, when practicable and desirable in order to allow freedom of action for VFR flights below the control area, be established at a greater height than the minimum specified in 18.2.11.3.2

18.2.11.3.2.2 When the lower limit of a control area is above 900 m (300 ft) MSL it shall coincide with a VFR Cruising level of the tables in IS 18.2.11.2.3

*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.*

18.2.11.3.3 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 in IS 18.2.11.2.3

#### 18.2.11.4 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, shall be delineated to include the upper airspace within the lateral limits of a number of lower flight information regions or control areas.

#### 18.2.11.5 Control zones

18.2.11.5.1 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.

*Note.— Aircraft holding in the vicinity of aerodromes are considered as arriving aircraft.*

18.2.11.5.2 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.

*Note.— A control zone may include two or more aerodromes situated close together.*

18.2.11.5.3 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.

*Note.— An upper limit higher than the lower limit of the overlying control area may be established when desired*



18.2.11.5.4 If a control zone is located outside of the lateral limits of a control area, an upper limit shall be established.

18.2.11.5.5 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 shall be established at a level which can easily be identified by pilots. When this limit is above 900 m (3 000 ft) MSL it shall coincide with a VFR cruising level of the tables in IS 18.2.11.2.3

*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.*

## 18.2.12 Identification of air traffic services units and airspaces

18.2.12.1 An area control centre or flight information centre shall be identified by the name of a nearby town or city or geographic feature.

18.2.12.2 An aerodrome control tower or approach control unit shall be identified by the name of the aerodrome at which it is located.

18.2.12.3 A control zone, control area or flight information region shall be identified by the name of the unit having jurisdiction over such airspace.

## 18.2.13 Establishment and identification of ATS routes

18.2.13.1 When ATS routes are established, a protected airspace along each ATS route and a safe spacing between adjacent ATS routes shall be provided.

18.2.13.2.1 When warranted by density, complexity or nature of the traffic, special routes shall 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 shall be taken of the navigational means available and the navigation equipment carried on board helicopters.

18.2.13.3 ATS routes shall be identified by designators.

18.2.13.4 Designators for ATS routes other than standard departure and arrival routes shall be selected in accordance with the principles set forth in IS. 18.2.7

18.2.13.5 Standard departure and arrival routes and associated procedures shall be identified in accordance with the principles set forth in IS 18.2.13

*Note 1— Guidance material relating to the establishment of ATS routes defined by VOR is contained the relevant CAP Establishment and identification of ATS routes*

*Note 2.— 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.*

*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.*

## 18.2.14 Establishment of change-over points

18.2.14.1 Change-over points shall be established on ATS route segments defined by reference to very high frequency omni-directional radio ranges where this will assist accurate navigation along the route segments. The establishment of change-over points shall be limited to route segments of 11 0 km (6 0 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.

18.2.14.2 Unless otherwise established in relation to the performance of the navigation aids or frequency protection criteria, the change-over point on a route segment shall 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 the relevant CAP Establishment of change-over points*

### **18.2.15 Establishment and identification of significant points**

18.2.15.1 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.

18.2.15.2 Significant points shall be identified designators

18.2.15.3 Significant points shall be established and identified in accordance with the principles set forth in IS 18.2

### **18.2.16 Establishment and identification of standard routes for taxiing aircraft**

18.2.16.1. Where necessary, standard routes for taxiing aircraft shall be established on an aerodrome between runways, aprons and maintenance areas. Such routes shall be direct, simple and where practicable, designed to avoid traffic conflicts.

18.2.16.2 Standard routes for taxiing aircraft shall be identified by designators distinctively different from those of the runways and ATS routes.

### **18.2.17 Coordination between the operator and air traffic services**

18.2.17.1 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 CARS Part 8, 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.

18.2.17.2 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.

*Note.— For aircraft subjected to unlawful interference, see 18.2.24.3.*

### **18.2.18 Coordination between military authorities and air traffic services**

18.2.18.1. Air traffic services authorities shall establish and maintain close cooperation with military authorities responsible for activities that may affect flights of civil aircraft.

18.2.18.2 Coordination of activities potentially hazardous to civil aircraft shall be effected in accordance with 18.2.19.

18.2.18.3 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.

18.2.18.3.1 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, The ANSP shall designate any areas or routes where the requirements of CARS Part 8 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.

*Note.— For aircraft subjected to unlawful interference, see 18.2.24.3 and 18.2.25.1.3.*

18.2.18.3.2. 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.

## 18.2.19 Coordination of activities potentially hazardous to civil aircraft

18.2.19.1 The arrangements for activities potentially hazardous to civil aircraft, whether over the territory of Suriname 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 CARS Part 20 and Procedures for Air Navigation Services , Aeronautical Information Management (PANS-AIM, Doc 10066)

18.2.19.1.1 If the appropriate ATS authority is not that of Suriname where the organization planning the activities is located, initial coordination shall be effected through the ATS authority responsible for the airspace over the State where the organization is located.

18.2.19.2 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.

18.2.19.2.1 In determining these arrangements the following shall be applied:

- a. the locations or areas, times and durations for the activities shall 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 shall 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 shall be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

18.2.19.3 The ANSP shall ensure that a safety risk assessment is conducted, as soon as practicable, for activities potentially hazardous to civil aircraft and that appropriate risk mitigation measures are implemented.

Note 1.— Such risk mitigation measures may include, but would not be limited to, airspace restriction or temporary withdrawal of established ATS routes or portions thereof.

Note 2.— Guidance on safety risk management can be found in the Safety Management Manual (SMM) (Doc 9859).

18.2.19.3.1 Suriname shall establish procedures to enable the organization or unit conducting or identifying activities potentially hazardous to civil aircraft to contribute to the safety risk assessment in order to facilitate consideration of all relevant safety-significant factors.

Note.— Guidance on collaborative decision making (CDM) processes for safety risk assessment and promulgation through NOTAM that could involve military authorities can be found in the Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations (Doc 9554)

18.2.19.4 The appropriate ATS authorities shall be responsible for initiating the promulgation of information regarding the activities.

18.2.19.5 If activities potentially hazardous to civil aircraft take place on a regular or continuing basis, special committees shall be established as required to ensure that the requirements of all parties concerned are adequately coordinated.

18.2.19.6 Adequate steps shall be taken to prevent emission of laser beams from adversely affecting flight operations.

*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).*

*Note 2.— See also CARS Part 12 ,Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations, Chapter 5.*

18.2.19.7 In order to provide added airspace capacity and to improve efficiency and flexibility of aircraft operations, the ANSP shall establish procedures providing for a flexible use of airspace reserved for military or other special activities. The procedures shall permit all airspace users to have safe access to such reserved airspace.

## **18.2.20 Aeronautical data**

18.2.20.1 Determination and reporting of air traffic services-related aeronautical data shall be in accordance with the accuracy and integrity classification required to meet the needs of the end-user of aeronautical data.

Note.— Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

18.2.20.2 Digital data error detection techniques shall be used during the transmission and/or storage of aeronautical data and digital data sets.

Note.— Detailed specifications concerning digital data error detection techniques are contained in PANS-AIM (Doc 10066).

## **18.2.21 Coordination between meteorological and air traffic services authorities**

18.2.21.1 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:

- (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;
- (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 centers and flight information centers shall report the information to the associated meteorological watch office and volcanic ash advisory centers (VAACs).

Note .— VAACs are designated by regional air navigation agreements in accordance with CARS Part 19 (Annex 3, Chapter 3, 3.5.1.)

*Note .— See 18.4.2.3 regarding transmission of special air-reports.*

18.2.21.2 Close coordination shall be maintained between area control centers, flight information centers and associated meteorological watch offices to ensure that information on volcanic ash included in NOTAM and SIGMET messages is consistent.

#### **18.2.22 Coordination between aeronautical information services and air traffic services authorities**

18.2.22.1 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 aircraft; and
- (d) any other information considered to be of operational significance.

18.2.22.2 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.

18.2.22.3 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 CARS 20.6.

The predetermined, internationally agreed AIRAC effective dates shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical information services.

Note.— Detailed specifications concerning the AIRAC system are contained in PANS-AIM (Doc 10066), Chapter 6.

18.2.22.4 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 necessary to meet the needs of the end-user of aeronautical data.

Note 1.— Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

Note 2.— Specifications for the issue of a NOTAM, SNOWTAM and ASHTAM are contained in CARS Part 20.6,

Note 3.— Reports of volcanic activity comprise the information detailed in CARS Part 19 (Annex 3, Chapter 4.)

- Note 4.— 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 5.— 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).

### 18.2.23 Minimum flight altitudes

Minimum flight altitudes shall be established by the ANSP for each ATS route and control area over the territory of Suriname.

The minimum flight altitudes determined shall provide a minimum clearance above the controlling obstacle located within the areas concerned.

Note.— The requirements for publication by States of minimum flight altitudes and of the criteria used to determine them are contained in PANS-AIM (Doc 10066), Appendix 2. Detailed obstacle clearance criteria are contained in PANS-OPS (Doc 8168), Volume II.

### 18.2.24 Service to aircraft in the event of an emergency

- 18.2.24.1 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.

*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 75 00, to indicate specifically that it is being subjected to unlawful interference;*

*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 CPDL C.*

- 18.2.24.1.1 In communications between ATS units and aircraft in the event of an emergency, Human Factors principles shall be observed.

Note.— Guidance material on Human Factors principles can be found in the Human Factors Training Manual (Doc 9683)

- 18.2.24.2 When an occurrence of unlawful interference with an aircraft takes place or is suspected, ATS units shall attend promptly to requests by the 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.

- 18.2.24.3 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 ANSP and exchange necessary information with the operator or its designated representative.

*Note 1.— A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference. See 18.2.25.1.3.*

*Note 2.— Procedures relating to the handling of strayed or unidentified aircraft are contained in 18.2.25.1.*

*Note 3.— The PANS-ATM (Doc 4444), Chapter 15, 15.1.3 contains more specific procedures related to unlawful interference.*

## 18.2.25 In-flight contingencies

### 18.2.25.1 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.

Note 2.— An aircraft may be considered, at the same time, as a “strayed aircraft” by one unit and as an “unidentified aircraft” by another unit.

Note 3.— A strayed or unidentified aircraft may be suspected as being the subject of unlawful interference.

18.2.25.1.1 As soon as an air traffic services unit becomes aware of a strayed aircraft it shall take all necessary steps as outlined in 18.2.25.1.1. 1 and 18.2.25.1.1.2 to assist the aircraft and to safeguard its flight.

*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.*

18.2.25.1.1.1 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.

*Note.— The requirements in d) and e) apply also to ATS units informed in accordance with c).*

18.2.25.1.1.2. 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.

18.2.25.1.2 As soon as an air traffic services unit becomes aware of an unidentified aircraft in its area, it shall endeavor 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.

18.2.25.1.2.1. The air traffic services unit shall, as necessary, inform the appropriate military unit as soon as the identity of the aircraft has been established.

18.2.25.1.3 Shall the ATS unit consider that a strayed or unidentified aircraft may be the subject of unlawful interference, the appropriate authority designated ( by Suriname in the NCASP ) shall immediately be informed, in accordance with locally agreed procedures.

#### 18.2.25.2 Interception of civil aircraft

18.2.25.2.1 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 has strayed from such adjacent flight information regions.

18.2.25.2.2 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 18.2.25.2.1;
- b. relay messages between the intercepted aircraft and the appropriate ATS unit, the intercept control unit or the intercepting aircraft.

#### 18.2.26 Time in air traffic services

18.2.26.1 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.

18.2.26.2 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.

18.2.26.3 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 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.

18.2.26.4 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.

18.2.26.5 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.



### 18.2.27 Establishment of requirements for carriage and operation of pressure-altitude reporting transponders

CASAS shall establish requirements for carriage and operation of pressure-altitude reporting transponders within defined portions of airspace.

*Note.— This provision is intended to improve the effectiveness of air traffic services as well as airborne collision avoidance systems.*

### 18.2.28 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).*

18.2.28.1 CASAS 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, CASAS shall establish:

- a) regulations that prescribe scheduling limits in accordance with IS 18.2.28.1.a; and
- b) where authorizing air traffic services providers to use a fatigue risk management system (FRMS) to manage fatigue, FRMS regulations in accordance with IS18.2.28.1.b

18.2.28.2 CASAS 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 established by the CASAS in accordance with 18.2.28.1 a); or
- b) an FRMS, in compliance with regulations established by the CASAS in accordance with 18.2.28.1 b), for the provision of all air traffic control services; or
- c) an FRMS, in compliance with regulations established by the CASAS in accordance with 18.2.28.1 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 CASAS in accordance with 18.2.28.1 a) for the remainder of its air traffic control services.

18.2.28.3 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 18.2.28.2 a), CASAS:

- 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 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 CARS Part 23 ,Annex 19.

18.2.28.4 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 18.2.28.2 b), CASAS 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 CASAS.

### 18.2.29 Safety management

Note: CARS Part 23, 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).

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 risk assessment has demonstrated that an acceptable 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 risk assessment may rely on operational judgment.

### 18.2.30 Common reference systems

#### 18.2.30.1 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.

Note.— Comprehensive guidance material concerning WGS-84 is contained in the World Geodetic System — 1984 (WGS-84) Manual (Doc 9674).

#### 18.2.30.2 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.

Note.— *The geoid globally most closely approximates MSL. It is defined as the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents.*

#### 18.2.30.3 Temporal reference system

18.2.30.3.1. The Gregorian calendar and Coordinated Universal Time (UTC) shall be used as the temporal reference system for air navigation.

18.2.30.3.2 When a different temporal reference system is used, this shall be indicated in GEN 2.1.2 of Aeronautical Information Publication (AIP).

### 18.2.31 Language proficiency

18.2.31.1. An air traffic services provider shall ensure that air traffic controllers speak and understand the language(s) used for radiotelephony communications as specified in CARS Part 2.

18.2.31.2 Except when communications between air traffic control units are conducted in a mutually agreed language, the English language shall be used for such communications.

### 18.2.32 Contingency arrangements

The Civil Aviation department shall develop and promulgate contingency plans for 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. See according IS 18.2.32.

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.

Note 1.— Guidance material relating to the development, promulgation and implementation of contingency plans is contained in the CASAS Advisory Pamphlet relating to Contingency Planning

Note 2.— Contingency plans may constitute a temporary deviation from the approved regional air navigation plans; such deviations are approved, as necessary.

### 18.2.33 Identification and delineation of prohibited, restricted and danger areas

18.2.33.1. Each prohibited area, restricted area, or danger area established by The Minister in charge of Air transport, shall upon initial establishment, be given an identification and full details shall be promulgated.

Note.— See PANS-AIM (Doc 10066), Appendix 2, ENR 5.1.

18.2.33.2 The identification so assigned shall be used to identify the area in all subsequent notifications pertaining to that area.

18.2.33.3 The identification shall be composed of a group of letters and figures as follows:

- a) nationality letters for location indicators assigned to Suriname or territory which has 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 Suriname or territory concerned.

18.2.33.4 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.

18.2.33.5 When a prohibited, restricted or danger area is established, the area shall be as small as practicable and be contained within simple geometrical limits, so as to permit ease of reference by all concerned.

### 18.2.34 Instrument flight procedure design service

The ANSP shall ensure that an instrument flight procedure design service is in place in accordance with I.S 18.2.34

## 18.3 AIR TRAFFIC CONTROL SERVICE

### 18.3.1 Application for air traffic control services

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.

### 18.3.2 Provision of air traffic control service

The parts of air traffic control service described in 18.2.3.1 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.

*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.*

### 18.3.3 Operation of air traffic control service

18.3.3.1 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 there from, 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.

18.3.3.2 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.

18.3.3.3 Air traffic control units shall 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.

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

18.3.3.4 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 ANSP, except that, when requested by an aircraft and if so prescribed by the ANSP, 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.

18.3.3.5 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 tables of cruising levels in IS 18.2.11.2.3, or
  - (2) modified table of cruising levels, when so prescribed in accordance with IS 18.2.11.2.3 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 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.

Note.— Guidance material relating to the implementation of composite lateral/vertical separation is contained in the Air Traffic Services Planning Manual (Doc 9426).

18.3.3.5.1 For all airspace where a reduced vertical separation minimum of 300 m (1000 ft) is applied between FL 290 and FL 410 inclusive, a programme shall be instituted, on a regional basis, for monitoring the height-keeping 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).

18.3.3.5.2 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.

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) Manual (Doc 9869).

18.3.3.5.3. Arrangements shall be put in place by the ANSP, through inter-regional agreement, for the sharing between regions of data and/or information from monitoring programmes.

#### 18.3.4 Separation minima

18.3.4.1 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 (ICAO Document 4444) 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 Suriname airspace;
  - (2) regional air navigation agreements for routes or portions of routes contained within airspace over the high seas or over areas of undetermined sovereignty.  
 Note.— Details of current separation minima prescribed by ICAO are contained in the PANS-ATM (Doc 4444) and the Regional Supplementary Procedures (Doc 7030).
- 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 neighboring airspace when:
  - (1) traffic will pass from one into the other of the neighboring airspaces;
  - (2) routes are closer to the common boundary of the neighboring airspaces than the separation minima applicable in the circumstances.

*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.*

18.3.4.2 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.

#### 18.3.5 Responsibility for control

18.3.5.1 Responsibility for control of individual flights  
 A controlled flight shall be under the control of only one air traffic control unit at any given time.

18.3.5.2 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.

### 18.3.6 Transfer of responsibility for control

#### 18.3.6.1 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:

- a. 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 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.
- b. 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.
- c. Between a unit providing approach control service and an aerodrome control tower.

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:
  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.

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.

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:

- (i) 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;
- (ii) when instrument meteorological conditions 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 or ATS unit instructions.

*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.*

#### 18.3.6.1.3. Between control sectors/positions within the same air traffic control 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 ATS unit instructions.

### 18.3.6.2 Coordination of transfer

18.3.6.2.1 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 18.3.6.2.2, 18.3.6.2.2.1, 18.3.6.2.2.2, and 18.3.6.2.3.

18.3.6.2.2 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.

18.3.6.2.2.1. 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.

18.3.6.2.2.2 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.

18.3.6.2.3 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 a subsequent portion of the flight, which it requires the aircraft to have at the time of transfer.

18.3.6.2.4 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.

18.3.6.2.5 Applicable coordination procedures, including transfer of control points, shall be specified in letters of agreement and ATS unit instructions as appropriate.

### 18.3.7 Air traffic control clearances

Air traffic control clearances shall be based solely on the requirements for providing air traffic control service.

#### 18.3.7.1 Contents of clearances



18.3.7.1.1. 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;

*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 CARS Part 8 Chapter 8.8.4.19*

- e) any necessary instructions or information on other matters such as approach or departure manoeuvres, communications and the time of expiry of the clearance.

*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.*

18.3.7.1.2 Standard departure and arrival routes and associated procedures shall 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.

*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 contained in PANS-OPS (Doc 8168), Volume II.*

### 18.3.7.2 Clearances for transonic flight

18.3.7.2.1 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.

18.3.7.2.2 The air traffic control clearance relating to the deceleration and descent of an aircraft from supersonic cruise to subsonic flight shall provide for uninterrupted descent, at least during the transonic phase.

### 18.3.7.3 Read-back of clearances and safety-related information

18.3.7.3.1 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
- 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.

18.3.7.3.1.1 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.

18.3.7.3.1.2 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.

18.3.7.3.2 Unless specified by the ANSP, voice read-back of CPDLC messages shall not be required.

Note.— The procedures and provisions relating to the exchange and acknowledgement of CPDLC messages are contained in Annex 10, Volume II, and the PANS-ATM (Doc 4444), Chapter 14.

18.3.7.3.3 Vehicle drivers operating or intending to operate on the manoeuvring area shall read back to the air traffic controller safety-related parts of instructions which are transmitted by voice, e.g. instructions to enter, hold short of, cross and operate on any operational runway or taxiway.

18.3.7.3.4 The controller shall listen to the read-back to ascertain that the instruction has been correctly acknowledged by the vehicle driver and shall take immediate action to correct any discrepancies revealed by the read-back.

#### 18.3.7.4 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.

18.3.7.4.1 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.

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.

18.3.7.4.2 When coordination as in 18.3.7.4.1 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.

18.3.7.4.2.1 When prescribed by the ANSP, aircraft shall contact a downstream air traffic control unit, for the purpose of receiving a downstream clearance prior to the transfer of control point.

18.3.7.4.2.1.1 Aircraft shall maintain the necessary two-way communication with the current air traffic control unit whilst obtaining a downstream clearance.

18.3.7.4.2.1.2 A clearance issued as a downstream clearance shall be clearly identifiable as such to the pilot.

18.3.7.4.2.1.3 Unless coordinated, downstream clearances shall not affect the aircraft's original flight profile in any air-space, other than that of the air traffic control unit responsible for the delivery of the downstream clearance.

Note.— Requirements relating to the application of downstream clearance delivery service are specified in CARS PART 17 (Annex 10, Volume II.) Guidance material is contained in the Manual of Air Traffic Services Data Link Applications (Doc 9694).

18.3.7.4.2.1.4 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 shall be available.

18.3.7.4.3 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 centers concerned, coordination with the subsequent area control centre shall be effected prior to issuance of the departure clearance.

- 18.3.7.4.4 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 be issued. Such clearance or revisions thereto shall apply only to those portions of the flight conducted within controlled airspace.

### 18.3.7.5 Air traffic flow management

- 18.3.7.5.1 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.

Note.— The capacity of the air traffic control services concerned will normally be declared by the appropriate ATS authority.

- 18.3.7.5.2 ATFM shall be implemented on the basis of regional air navigation agreements or, if appropriate, through multilateral agreements. Such agreements shall make provision for common procedures and common methods of capacity determination.

- 18.3.7.5.3 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 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.

### 18.3.8 Control of persons and vehicles at aerodromes

- 18.3.8.1 The movement of persons or vehicles including towed aircraft on the maneuvering 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.

- 18.3.8.2 In conditions where low visibility procedures are in operation:

- (a) persons and vehicles operating on the maneuvering 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 18.3.8.3, the minimum separation between vehicles and taxiing aircraft shall be as prescribed by the ANSP taking into account 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.

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).

- 18.3.8.3 Emergency vehicles proceeding to the assistance of an aircraft in distress shall be afforded priority over all other surface movement traffic.
- 18.3.8.4 Subject to the provisions in 18.3.8.3, vehicles on the maneuvering 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;
  - (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.

### 18.3.9 Provision of radar and ADS-B

Radar and ADS-B ground systems shall provide for the display of safety-related alerts and warnings, including conflict alert, conflict prediction, minimum safe altitude warning and unintentionally duplicated SSR codes.

### 18.3.10 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 movement radar (SMR) provided in accordance with the provisions of CARS Part 12, or other suitable surveillance equipment, shall be utilized to:

- 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.

## 18.4 FLIGHT INFORMATION SERVICE

### 18.4.1 Application for flight information service

- 18.4.1.1 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.

*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.*

- 18.4.1.2 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 provision of air traffic control service so requires.

*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.*

### 18.4.2 Scope of flight information service

- 18.4.2.1 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; and of any other information likely to affect safety.

18.4.2.2 Flight information service provided to flights shall include, in addition to that outlined in 18.4.2.1, 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.

*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.*

*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 CASAS Advisory Pamphlet Traffic Information Broadcast by Aircraft (TIBA) and Related Operating Procedures.*

18.4.2.3 ATS units shall 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 shall be continued for a period to be determined by agreement between the meteorological and air traffic services authorities concerned.

18.4.2.4 Flight information service provided to VFR flights shall include, in addition to that outlined in 18.4.2.1, 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.

### 18.4.3 Operational flight information service broadcasts

#### 18.4.3.1 Application

18.4.3.1.1 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.

18.4.3.1.2 Where integrated operational flight information messages are to be transmitted to aircraft, they shall be transmitted with the content and, where specified, in the sequence indicated, for the various phases of flight.

18.4.3.1.3 Operational flight information service broadcasts, when provided, shall consist of messages containing integrated information regarding selected operational and meteorological elements appropriate to the various phases of flight. These broadcasts shall be of three major types, i.e. HF, VHF and ATIS.

18.4.3.1.4 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.

18.4.3.2 HF operational flight information service (OFIS) broadcasts

18.4.3.2.1 HF operational flight information service (OFIS) broadcasts shall be provided when it has been determined by regional air navigation agreements that a requirement exists.

18.4.3.2.2 Whenever such broadcasts are provided:

- a) the information shall be in accordance with 18.4.3.2.5, as applicable, subject to regional air navigation agreements;
- b) the aerodromes for which reports and forecasts are to be included shall be as determined by regional air navigation agreements;
- c) the time-sequencing of stations participating in the broadcast shall be as determined by regional air navigation agreements;
- d) the HF OFIS broadcast message shall take into consideration human performance. The broadcast message shall not exceed the length of time allocated for it by regional air navigation agreements, care being taken that the readability is not impaired by the speed of the transmission;
- e) each aerodrome message shall 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 shall be included together with the time of that observation;
- g) the full broadcast message shall be repeated if this is feasible within the remainder of the time allotted to the broadcasting station;
- h) the broadcast information shall be updated immediately a significant change occurs; and
- i) the ANSP shall prepare and disseminate the HF OFIS message

18.4.3.2.3 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 shall be available in the English language.

18.4.3.2.4 Where HF OFIS broadcasts are available in more than one language, a discrete channel shall be used for each language.

18.4.3.2.5 HF operational flight information service broadcast messages shall contain the following information in the sequence indicated or as determined by regional air navigation agreements:

## a) En-route weather information

Information on significant en-route weather phenomena shall be in the form of available SIGMET as prescribed in CARS Part 19

## 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 (5 000 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.

**18.4.3.3 VHF operational flight information service (OFIS) broadcasts**

18.4.3.3.1 VHF operational flight information service broadcasts shall be provided as determined by regional air navigation agreements.

18.4.3.3.2 Whenever such broadcasts are provided:

- a) the aerodromes for which reports and forecasts are to be included shall be as determined by regional air navigation agreements;
- b) each aerodrome message shall be identified by the name of the aerodrome to which the information applies;
- c) when information has not been received in time for a broadcast, the latest available information shall be included together with the time of that observation;
- d) the broadcasts shall be continuous and repetitive;
- e) The VHF OFIS broadcast message shall take into consideration human performance. The broadcast message shall, whenever practicable, not exceed five minutes, care being taken that the readability is not impaired by the speed of the transmission;
- f) the broadcast message shall be updated on a scheduled basis as determined by regional air navigation agreements. In addition, it shall be expeditiously updated immediately a significant change occurs; and
- g) the ANSP shall prepare and disseminate the VHF OFIS message

18.4.3.3.3 — 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 shall be available in the English language.

18.4.3.3.4 .— Where VHF OFIS broadcasts are available in more than one language, a discrete channel shall be used for each language.

18.4.3.3.5.— VHF operational flight information service broadcast messages shall 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;
- (a) supplementary information on recent weather of operational significance and, where necessary, wind shear;
- (b) trend forecast, when available; and
- (c) notice of current SIGMET messages.

\* These elements are replaced by the term “CAVOK” whenever the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.

† As determined on the basis of regional air navigation agreements.

#### 18.4.3.4 Voice-automatic terminal information service (Voice-ATIS) broadcasts

18.4.3.4.1 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 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.
- 18.4.3.4.2 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.
- 18.4.3.4.3 Voice-ATIS broadcasts shall not be transmitted on the voice channel of an ILS.
- 18.4.3.4.4 Whenever Voice-ATIS is provided, the broadcast shall be continuous and repetitive
- 18.4.3.4.5 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 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 18.4.3.6 below.*

- 18.4.3.4.6 Voice-ATIS broadcasts provided at designated aerodromes for use by international air services shall be available in the English language as a minimum.
- 18.4.3.4.7 Where Voice-ATIS broadcasts are available in more than one language, a discrete channel shall be used for each language.
- 18.4.3.4.8. The Voice-ATIS broadcast message shall, 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 shall take into consideration human performance.
- Note.— Guidance material on human performance can be found in the Human Factors Training Manual (Doc 9683).*

#### **18.4.3.5 Data link-automatic terminal information service (D-ATIS)**

- 18.4.3.5.1 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.
- 18.4.3.5.1.1. 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 designator, shall be considered identical.

*Note.— Significant change criteria are specified in 2.3.2 of Appendix 3 to Annex 3.*

- 18.4.3.5.2 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.
- 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.*

#### **18.4.3.6 Automatic terminal information service (voice and/or data link)**

- 18.4.3.6.1 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 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 ANSP, provide the aircraft with the current altimeter setting; and
- g) the meteorological information shall be extracted from the local meteorological routine or special report.

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.

18.4.3.6.2 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.

18.4.3.6.3 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 18.4.3.6.1.f

18.4.3.6.4 If an aircraft acknowledges receipt of an ATIS that is no longer current, any element of information that needs updating shall be transmitted to the aircraft without delay.

18.4.3.6.5 Contents of ATIS shall be kept as brief as possible. Information additional to that specified in 18.4.3.7 to 18.4.3.9, for example information already available in aeronautical information publications AIPs) and NOTAM, should only be included when justified in exceptional circumstances

#### 18.4.3.7 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;
- (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;
- (tq) dew point temperature;
- (r) altimeter setting(s);
- s) any available information on significant meteorological phenomena in the approach and climb-out areas including wind shear, and information on recent weather of operational significance;
- t) trend forecast, when available; and
- u) specific ATIS instructions.

\*These elements are replaced by the term “CAVOK” whenever the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.

† As determined on the basis of regional air navigation agreements.

#### 18.4.3.8 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;
- (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;
- tq 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.

\*These elements are replaced by the term “CAVOK” whenever the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.

† As determined on the basis of regional air navigation agreements.

#### 18.4.3.9 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 take-off; status of arresting system constituting a potential hazard, if any;
- (g) significant surface conditions of runway(s) to be used for take-off 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 climb-out area including wind shear;
- (s) trend forecast, when available; and
- (t) specific ATIS instructions.

\*These elements are replaced by the term “CAVOK” whenever the conditions as specified in the PANS-ATM (Doc 4444), Chapter 11 prevail.

As determined on the basis of regional air navigation agreements.

#### 18.4.4 VOLMET broadcasts and D-VOLMET service

18.4.4.1 HF and/or VHF VOLMET broadcasts and/or D-VOLMET service shall be provided when it has been determined by regional air navigation agreements that a requirement exists.

Note.— CARS Part 19 (Annex 3, 11.5 and 11.6 provide details of VOLMET broadcasts and DVOLMET service.)

18.4.4.2 VOLMET broadcasts shall use standard radiotelephony phraseologies.

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.

## 18.5 ALERTING SERVICE

### 18.5.1 Application

18.5.1.1 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.

18.5.1.2 Flight information centers or area control centers 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 center.

18.5.1.3 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 center or area control center responsible which shall in turn notify the rescue coordination center, except that notification of the area control center, flight information center, or rescue coordination center shall not be required when the nature of the emergency is such that the notification would be superfluous.

18.5.1.3.1 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.

### 18.5.2 Notification of rescue coordination centers

18.5.2.1 Without prejudice to any other circumstances that may render such notification advisable, air traffic services units shall, except as prescribed in 18.5.5.1, notify rescue coordination centers immediately 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
  - 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 reestablished 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 imminent danger and do not require immediate assistance.

18.5.2.2 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.

18.5.2.2.1 Such part of the information specified in 18.5.2.2, which is not available at the time notification is made to a rescue coordination center, shall 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.

18.5.2.3 Further to the notification in 18.5.2.1, the rescue coordination center 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.

*Note.— The cancellation of action initiated by the rescue coordination center is the responsibility of that center.*

### 18.5.3 Use of communication facilities

Air traffic services units shall, as necessary, use all available communication facilities to endeavor to establish and maintain communication with an aircraft in a state of emergency, and to request news of the aircraft.

### 18.5.4 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 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.

### 18.5.5 Information to the operator

18.5.5.1 When an area control or a flight information center 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 center.

*Note.— If an aircraft is in the distress phase, the rescue coordination center has to be notified immediately in accordance with 18.5.2.1*

18.5.5.2 All information notified to the rescue coordination center by an area control or flight information center shall, whenever practicable, also be communicated, without delay, to the operator.

### 18.5.6 Information to aircraft operating in the vicinity of an aircraft in a state of Emergency

18.5.6.1 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 vicinity of the aircraft involved shall, except as provided in 18.5.6.2, be informed of the nature of the emergency as soon as practicable.

18.5.6.2 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.

## 18.6 AIR TRAFFIC SERVICES REQUIREMENTS FOR COMMUNICATIONS

### 18.6.1 Aeronautical mobile service (air-ground communications)

**18.6.1.1 General**

18.6.1.1.1 Radiotelephony and/or data link shall be used 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.*

18.6.1.1.2 Where an RCP specification has been prescribed by Suriname for performance-based communication, ATS units shall, in addition to the requirements specified in 18.6.1.1.1, be provided with communication equipment which will enable them to provide ATS in accordance with the prescribed RCP specification(s).

*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).*

18.6.1.1.3 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.

*Note.— Requirements for retention of all automatic recordings of communications in ATC are specified in CARS Part 17, Annex 10, Volume II, 3.5.1.5.*

18.6.1.1.4 Recordings of communications channels as required in paragraph 18.6.1.1.3 shall be retained for a period of at least thirty days.

**18.6.1.2 For flight information service**

18.6.1.2.1 Air-ground communication facilities shall enable two-way communications to take place between a unit providing flight information service and appropriately equipped aircraft flying anywhere within the flight information region.

18.6.1.2.2 Whenever practicable, air-ground communication facilities for flight information service shall permit direct, rapid, continuous and static-free two-way communications.

**18.6.1.3 For area control service**

18.6.1.3.1 Air-ground communication facilities shall 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).

18.6.1.3.2 Whenever practicable, air-ground communication facilities for area control service shall permit direct, rapid, continuous and static-free two-way communications.

18.6.1.3.3 Where air-ground voice communication channels are used for area control service and are worked by air-ground communicators, suitable arrangements shall be made to permit direct pilot-controller voice communications, as and when required.



**18.6.1.4 For approach control service**

18.6.1.4.1 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.

18.6.1.4.2 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.

**18.6.1.5 For aerodrome control service**

18.6.1.5.1 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.

18.6.1.5.2 Where conditions warrant, separate communication channels shall be provided for the control of traffic operating on the manoeuvring area.

**18.6.2 Aeronautical fixed service (ground-ground communications)****18.6.2.1 General**

18.6.2.1.1 Direct-speech and/or data link communications shall be 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.

*Note — Requirements for retention of all automatic recordings of communications in ATC are specified in Annex 10, Volume II, 3.5.1.5.*

**18.6.2.2 Communications within a flight information region-**

18.6.2.2.1 Communications between air traffic services units

18.6.2.2.1.1 A flight information center shall have facilities for communications with the following units providing a service within its area of responsibility:

- (a) the area control center, unless collocated;
- (b) approach control units;
- (c) aerodrome control towers.

18.6.2.2.1.2 An area control center, in addition to being connected to the flight information center as prescribed in 18.6.2.2.1.1, 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.

18.6.2.2.1.3 An approach control unit, in addition to being connected to the flight information center and the area control centre as prescribed in 18.6.2.2.1.1 and 18.6.2.2.1.2, shall have facilities for communications with the associated aerodrome control tower(s) and, when separately established, the associated air traffic services reporting office(s).

18.6.2.2.1.4 An aerodrome control tower, in addition to being connected to the flight information center, the area control center and the approach control unit as prescribed in 18.6.2.2.1.1, 18.6.2.2.1.2 and 18.6.2.2.1.3, shall have facilities for communications with the associated air traffic services reporting office, when separately established.

#### 18.6.2.2.2 Communications between air traffic services units and other units

18.6.2.2.2.1 A flight information center and an area control center 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 center;
- c. the aeronautical telecommunications station serving the center;
- d. appropriate operator's offices;
- e. the rescue coordination center or, in the absence of such center, any other appropriate emergency service;
- f. the international NOTAM office serving the center.

18.6.2.2.2.2 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.

18.6.2.2.2.3 The communication facilities required under 18.6.2.2.2.1.(a) and 18.6.2.2.2.2.(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.

#### 18.6.2.2.3 Description of communication facilities

18.6.2.2.3.1 The communication facilities required under 18.6.2.2.1, 18.6.2.2.2.1. (a) and 18.6.2.2.2.2.(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 radar control 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.

18.6.2.2.3.2 In all cases not covered by 18.6.2.2.3.1, the communication facilities shall 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.

18.6.2.2.3.3 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.

18.6.2.2.3.4 The communication facilities required in accordance with 18.6.2.2.1 and 18.6.2.2.2 shall 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.

18.6.2.2.3.5 The communication facilities required under 18.6.2.2.2a), b) and c) shall include provisions for communications by direct speech arranged for conference communications.

18.6.2.2.3.6 The communication facilities required under 18.6.2.2.2 d) shall include provisions for communications by direct speech arranged for conference communications, whereby the communications can normally be established within fifteen seconds.

18.6.2.2.3.7 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 18.6.2.2.2.1 and 18.6.2.2.2 shall be provided with automatic recording.

18.6.2.2.3.8 Recordings of data and communications as required in 18.6.2.2.3.3 and 18.6.2.2.3.7 shall be retained for a period of at least thirty days.

### **18.6.2.3 Communications between flight information regions**

18.6.2.3.1 Flight information centers and area control centers shall have facilities for communications with all adjacent flight information centers and area control centers.

18.6.2.3.1.1 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.

18.6.2.3.1.2 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 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.

18.6.2.3.1.3 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 centers or area control centers other than those mentioned in 18.6.2.3.1.2. shall include provisions for direct speech alone, or in combination with data link communications. The communication facilities shall be provided with automatic recording.

18.6.2.3.1.4 The communication facilities in 18.6.2.3.1.3 shall permit communications to be established normally within fifteen seconds.

18.6.2.3.2 Adjacent ATS units shall be 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.*

18.6.2.3.3 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 shall be connected with the area control center serving the adjacent area.

18.6.2.3.4 The communication facilities in 18.6.2.3.2 and 18.6.2.3.3 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 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

18.6.2.3.5 In all cases where automatic exchange of data between air traffic services computers is required, suitable facilities for automatic recording shall be provided.

18.6.2.3.6 Recordings of data and communications as required in 18.6.2.3.5 shall be retained for a period of at least thirty days.

#### **18.6.2.4 Procedures for direct-speech communications**

Appropriate procedures for direct-speech communications shall 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.

#### **18.6.3 Surface movement control service**

18.6.3.1 Communications for the control of vehicles other than aircraft on maneuvering areas at controlled aerodromes.

18.6.3.1.1 Two-way radiotelephony communication facilities shall be provided for aerodrome control service for the control of vehicles on the maneuvering area, except where communication by a system of visual signals is deemed to be adequate.

18.6.3.1.2 Where conditions warrant, separate communication channels shall be provided for the control of vehicles on the maneuvering area. Automatic recording facilities shall be provided on all such channels.

18.6.3.1.3 Recordings of communications as required in 18.6.3.1.2 shall be retained for a period of at least thirty days.

Note.— See also Annex 10, Volume II, 3.5.1.5.

#### **18.6.4 Aeronautical radio navigation service**

18.6.4.1 Automatic recording of surveillance data

18.6.4.1.1 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, shall be automatically recorded for use in accident and incident investigations, search and rescue, air traffic control and surveillance systems evaluation and training.

- 18.6.4.1.2 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.

## 18.7 AIR TRAFFIC SERVICES REQUIREMENTS FOR INFORMATION

### 18.7.1 Meteorological information

#### 18.7.1.1 General

- 18.7.1.1.1 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.

- 18.7.1.1.2 Air traffic services units shall 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.

*Note.— The meteorological phenomena are listed in CARS Part 19, Chapter 19.4, 19.4.6.8.*

- 18.7.1.1.3 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 shall be as agreed between the Meteorological Authority and the ANSP.

#### 18.7.1.2 Flight information centers and area control centers

- 18.7.1.2.1 Flight information centers and area control centers shall be supplied with meteorological information as described in CARS Part 19 (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.

*Note.— For the purpose of this provision, 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.*

- 18.7.1.2.2 Flight information centers and area control centers shall be provided, at suitable intervals, with current pressure data for setting altimeters, for locations specified by the flight information center or area control center concerned.

#### 18.7.1.3 Units providing approach control service

- 18.7.1.3.1 Units providing approach control service shall be supplied with meteorological information as described in CARS Part 19 (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 identify the runway and section of the runway monitored by each anemometer.

*Note.— See Note following 18.7.1.2.1.*

- 18.7.1.3.2 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.
- 18.7.1.3.3 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.
- 18.7.1.3.4 Units providing approach control service for final approach, landing and take-off 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 display(s) in the aerodrome control tower and in the meteorological station, where such a station exists.
- 18.7.1.3.5 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 shall be 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 in the meteorological station, where such a station exists.
- 18.7.1.3.6 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.

*Note.— Provisions concerning the issuance of wind shear warnings and alerts and ATS requirements for meteorological information are given in CARS Part 19 ( Annex 3, Chapter 7 and Appendices 6 and 9. )*

#### **18.7.1.4 Aerodrome control towers**

18.7.1.4.1 Aerodrome control towers shall be supplied with meteorological information as described in CARS Part 19 (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 established criteria, without waiting for the next routine report or forecast.

*Note.— See Note following 18.7.1.2.1.*

- 18.7.1.4.2 Aerodrome control towers shall be provided with current pressure data for setting altimeters for the aerodrome concerned.
- 18.7.1.4.3 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 display(s) to which they are related shall be clearly marked to identify the runway and section of the runway monitored by each sensor.
- 18.7.1.4.4 Aerodrome control towers at aerodromes where 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.

18.7.1.4.5 Aerodrome control towers at aerodromes where the height of cloud base is assessed by instrumental means shall be 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 meteorological station, where such a station exists.

18.7.1.4.6 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.

18.7.1.4.7 Aerodrome control towers and/or other appropriate units shall be supplied with aerodrome warnings.

Note.— The meteorological conditions for which aerodrome warnings are issued are listed in CARS Part 19 (Annex 3, Appendix 6, 5.1.3.)

18.7.1.5 Communication stations

Where necessary for flight information purposes, current meteorological reports and forecasts shall be supplied to communication stations. A copy of such information shall be forwarded to the flight information centre or the area control centre.

## 18.7.2 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.

## 18.7.3 Information on the operational status of navigation services

18.7.3.1 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.

18.7.3.2 Information on the operational status, and any changes thereto, of radio navigation services and visual aids as referred to in 18.7.3.1 shall be received by the appropriate ATS unit(s) on a timely basis consistent with the use of the service(s) and aid(s) involved.

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.

## 18.7.4 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 CARS PART 8.

## 18.7.5 Information concerning volcanic activity

18.7.5.1 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.

18.7.5.2 Area control centers and flight information centers shall be provided with volcanic ash advisory information issued by the associated VAAC.

Note.— VAACs are designated by regional air navigation agreements in accordance with CARS Part 19 (Annex 3, 3.5.1.)

#### **18.7.6 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.

### **18.8 ATS ORGANISATION REQUIREMENTS**

#### **18.8.1 Human Resources Management**

##### **18.8.1.1 Objective**

To ensure that human resources are properly managed with a view to minimizing their contribution to accident/incident in the provision of ATM services.

#### **18.8.2 Requirement**

18.8.2.1 The ANSP shall systematically address human resources management in the following key aspects:

- (i) Management responsibilities and accountabilities;
- (ii) Staff deployment;
- (iii) Operational watch rostering; and
- (iv) Operational support arrangements.

18.8.2.2 The ANSP shall identify the key personnel responsible for the safe conduct of the ATM services. Their positions, responsibilities, functions, accountabilities and authorities are to be clearly defined. The ANSP shall also develop job descriptions for other ATS staff & technical staff. Organization chart indicating the specific responsibilities shall be provided.

18.8.2.3 The ANSP must document its policies and procedures used for determining its staffing levels to ensure the provision of a safe ATS system.

18.8.2.4 The ANSP shall deploy sufficient number of personnel with valid air traffic controller licences to provide ATC at the ATC units.

18.8.2.4.1 The ANSP shall ensure that only personnel with valid air traffic controller licences are permitted to perform ATC service in accordance with the rating as endorsed on their licence unless such personnel is engaged in On-the-Job Training (OJT) which is conducted in accordance with the ANSP's procedures.

18.8.2.4.2 The ANSP shall ensure that a person shall not perform any duty as an air traffic controller:

- (a) within eight hours after consumption of alcohol;
- (b) while under the influence of alcohol; or
- (c) while under the influence of any drug or other substances that would impair his ability to perform his duties and thereby jeopardise aviation safety.



18.8.2.5 The ANSP shall plan the level of ATC staffing requirements taking into account the following factors:

- (i) Training requirements;
- (ii) Rest days or rest periods between shifts;
- (iii) Leave requirements;
- (iv) Sick leave reserve;
- (v) Traffic volume, pattern and trend; and
- (vi) Mid- to long-term projection on the development of ATM system.

18.8.2.6 The ANSP shall ensure that adequate operations support staff are trained and maintained to fill established positions of the organization so as to fulfill the necessary functions, by providing them with adequate training and that their proficiency shall be checked on a recurrent basis.

18.8.2.7 The ANSP shall develop policies and procedures to enable recruitment and retention of adequate ATS staff.

### **18.8.3 Training and assessment for air traffic controllers**

#### **18.8.3.1 General**

18.8.3.1.1 The ANSP shall document its policies and procedures on training and assessment of its air traffic controllers in an appropriate manual.

18.8.3.1.2 The ANSP shall establish a process for the timely amendment of this manual and bringing the amendments to the notice of the relevant staff and to the CASAS within a reasonable period of time.

18.8.3.1.3 The ANSP shall establish the competencies and performance criteria required of its air traffic controllers.

#### **18.8.3.2 ATS training program**

18.8.3.2.1 An air traffic service provider shall establish procedures and programs for the training and assessment of the following personnel:

- (1) air traffic controllers;
- (2) flight service operators;
- (3) personnel directly involved in the provision of an HF aeronautical telecommunication service;
- (4) personnel directly involved in activities supporting—
  - (i) rated air traffic controllers; and
  - (ii) rated flight service operators.

18.8.3.2.2 An air traffic service provider shall establish procedures to ensure that personnel giving instruction in an operational environment hold an appropriate current ATS instructor authorization issued under CARS Part 2 en CARS Part 3.

18.8.3.2.3 An air traffic service provider shall establish procedures to ensure that the training programs for each course shall be comprehensive and facilitate achievement of training goals through a syllabus, which reflects required competencies. The syllabus must ensure compliance with relevant national and international requirements.

18.8.3.2.4 Training courses shall use a method of delivery consistent with using facilities and instructors, or training officers, with current expertise and identified qualifications appropriate to achieving the goals of the course.

18.8.3.2.5 The method of assessment, both theoretical and practical, shall be qualified assessors and appropriate processes and facilities.

18.8.3.2.6 **Emergency Training**  
Emergency training to specifically prepare a candidate for circumstances shall form part of all training courses.

18.8.3.2.7 **Refresher Training**

- (a) Refresher training subject to compliance with CARS Part 2 & 3 required every 2 years, involves periodic training and assessment of individuals performing functions in air traffic services in those competencies (knowledge and skills) which are essential, but infrequently or rarely used (e.g. abnormal and emergency operations, degraded equipment modes, contingency plan implementation). The content and periodicity of refresher training shall be sufficient to ensure competency.

18.8.3.2.8 **On-going Training**

The training program shall provide for on-going training, as necessary, to ensure that staff are competent in the use of new or emerging standards, procedures, techniques, facilities and equipment identified as essential to task performance.

18.8.3.2.9 **Remedial Training**

The training program shall have a process which identifies deficiencies in knowledge or application, and must have a process to ensure these deficiencies are rectified.

18.8.3.2.10 **Qualifications of Trainers and Checkers**

Persons carrying out training and/or checking functions shall be appropriately qualified for these functions.

#### 18.8.3.2.10.1 REQUIREMENT FOR ISSUE OF AIR TRAFFIC INSTRUCTOR AUTHORISATION

Where a person wishes to apply for an Air Traffic Instructor Authorisation he shall:

- (a) apply to the Authority;
- (b) hold an Air Traffic Controller Licence issued in accordance with CARS Part 2 with a rating for the relevant service;
- (c) be able to read, write and understand the English Language and speak it without impediment of speech that would adversely affect two-way radio conversation;
- (d) have at least two years experience exercising the privileges of an Air Traffic Controller Licence; and
- (e) provide the Authority with evidence of having satisfactorily completed an approved training course in the theory and practice of instruction.

#### 18.8.3.2.10.2 INSTRUCTOR AUTHORISATION

Where an applicant meets the requirements for the issue of an Air traffic Instructor authorization, the CASAS may recommend the issuance of such authorization.

#### 18.8.3.2.10.3 PRIVILEGES AND LIMITATIONS OF AIR TRAFFIC CONTROLLER INSTRUCTOR RATING

The holder of an Air Traffic Instructor Authorisation (hereinafter referred to as "an Air Traffic Instructor") may:

- (a) instruct Air Traffic Control personnel;
- (b) directly supervise Air Traffic Control personnel undergoing training or regaining recency or who are performing Air Traffic Control duties;

(c) assess the preparedness of an applicant for the issue of an Air Traffic Controller Licence or rating.

An Air Traffic Instructor in exercising the privileges under his rating shall hold a current Air Traffic Controller Licence with a valid rating for the relevant service.

Where Air Traffic Instructor is not exercising the privileges of an Air Traffic Controller Licence, he shall not be required to hold a current medical certificate.

In exercising the privileges of instructor, an air traffic instructor shall within the preceding six months have demonstrated to an air traffic examiner his ability to exercise such privileges by passing an examination and a skilltest based on the exercise of such privileges.

#### 18.8.3.2.10.4 REQUIREMENTS FOR AIR TRAFFIC EXAMINER AUTHORISATION

Where an Air Traffic Instructor has at least three years' experience exercising the privileges of an Air Traffic Instructor Authorisation and such person is of good character he may be designated by the CASAS, as an Air Traffic Examiner for aeronautical knowledge, skills and proficiency testing.

#### 18.8.3.2.10.5 PRIVILEGES AND LIMITATIONS OF AIR TRAFFIC EXAMINERS AUTHORISATIONS

The holder of an Air Traffic Examiner Authorisation (hereinafter referred to as "an Air Traffic Examiner") shall conduct aeronautical knowledge and skill tests for initial issue or continued validity of air traffic licences and ratings.

An Air Traffic Examiner in exercising the privileges of his Air Traffic Examiner Authorisation shall—

(a) hold a current Air Traffic Service Licence with a rating for the relevant service; and  
(b) conduct the tests at an Air Traffic Control

Facility or an Aviation Training Organisation approved for Air Traffic Control training;

(c) as far as practicable, not test an applicant to whom he has given instruction for that licence or rating except with the expressed consent in writing of the CASAS.

#### 18.8.3.2.10.6 On-The-Job Training Instructor (OJTI)

The CASAS is required to authorise an air traffic controller before he can carry out instruction in an operational environment as an OJTI.

Essentially, the OJTI is responsible:

(a) for the safety of the air traffic control service that the trainee air traffic controller is providing under his supervision;

(b) to ensure that trainee air traffic controllers are competent in the use of new standards, procedures, techniques, facilities and equipment identified as essential to task performance;

(c) to determine and report on the training progress;

(d) to identify any deficiencies in knowledge or skill and recommending remedial training;

(e) to recommend trainee air traffic controllers as being at an appropriate level of competence where they should be successful at a rating or validation assessment;

(f) to supervise air traffic controllers who have had their rating(s) suspended; and

(g) to review, monitor and propose changes to the training.

An OJTI shall meet the following minimum requirements:

(a) holds a valid air traffic controller licence;

(b) has successfully completed an OJTI training course; and

(c) has held a valid rating for a period of at least 2 years in the rating discipline in which he will instruct.

Note — The two-year period in sub-paragraph (c) above represents an absolute minimum experience level that may need to be significantly extended in certain more complex operational environments.

An air traffic controller may carry out instruction in an operational environment only if he meets the requirements of an OJTI.

#### 18.8.3.2.10.7 Authorised Check Controllers

The CASAS may authorise air traffic controllers within the ANSP as Authorised Check Controllers. The authorisation is valid up to a period of 2 years, subject to renewal, if the requirements of Authorised Check Controller are met.

Authorised Check Controller nominees shall meet the following requirements for authorisation:

- (a) hold an ATC licence;
- (b) have 2 valid ratings with a minimum of 2 years of experience in each rating;
- (c) have at least 2 years of experience as an OJTI or as an instructor in an ATC Training Organisation;
- (d) have successfully completed an Authorised Check Controller Training Programme submitted by the ANSP and approved by the CASAS comprising of at least:
  - i) scope of assessment;
  - ii) practical training on the conduct of pre and post assessment briefings; and
  - iii) qualifying check by the CASAS.
- (e) have successfully completed an Authorised Check Controller Induction Training

Authorised Check Controllers shall meet the following requirements prior to the renewal of authorisation:

- (a) continue to hold an ATC licence and 2 valid ratings;
- (b) have conducted at least 12 assessments (Validation Assessment/Re-validation Assessment/Proficiency Check)

during the authorisation term, with at least 2 assessments conducted in every 180-day period commencing from the start date of authorisation;

- (c) have successfully completed the Authorised Check Controller Recurrent Training to be updated with current information on the roles and responsibilities; and
- (d) have successfully passed an Authorised Check Controller Surveillance Check, not more than 6 months prior to the expiry date of the Authorised Check Controller authorisation.

The Authorised Check Controller shall be responsible to conduct an evaluation of the trainee air traffic controllers through a validation or revalidation assessment when the reports by the OJTIs indicate that they are ready.

During the conduct of proficiency checks, the Authorised Check Controller is responsible to monitor the air traffic controller's

performance and examine any area of his performance that should be improved.

The Authorised Check Controller is authorised to endorse the issuance of subsequent control ratings on the air traffic controller licence, after the latter has:

- (a) successfully completed an approved course of ATC training in that rating;
- (b) successfully completed OJT at the unit; and
- (c) successfully completed validation (rating) check.

Following the evaluation, the Authorised Check Controller shall notify the CASAS of the results of the validation/re-validation assessment as soon as possible. The results and reports of the proficiency checks of air traffic controllers shall be submitted to the CASAS regularly.

#### 18.8.3.2.10.8 Senior Authorised Check Controllers

The CASAS may authorise Authorised Check Controller as Senior Authorised Check Controllers. The authorisation is valid up to a period of 2 years, subject to renewal, if the requirements of Senior Authorised Check Controller are met.

Senior Authorised Check Controller nominees shall meet the following requirements for authorisation:

- (a) hold an ATC licence with valid ratings;
- (b) have served as an Authorised Check Controller for at least 3 years;
- (c) have conducted at least 12 checks as an Authorised Check Controller in the preceding 12 months;
- (d) have successfully completed the Senior Authorised Check Controller Induction Training on the roles, responsibilities and tasks of a Senior Authorised Check Controller; and

(e) have successfully completed a qualifying check to assess his suitability to act as a Senior Authorised Check Controller.

Senior Authorised Check Controller shall meet the following requirements prior to the renewal of authorisation:

- (a) continue to hold an ATC licence with valid ratings;
- (b) continue to hold an Authorised Check Controller authorisation;
- (c) have conducted at least 4 checks on Authorised Check Controller s during the authorisation period, with at least 1 check conducted in every 180-day period commencing from the date of authorisation to demonstrate currency;
- (d) have successfully completed the Senior Authorised Check Controller Recurrent Training to ensure familiarity with the latest requirements and standards; and
- (e) have successfully passed the Senior Authorised Check Controller Surveillance Check not more than 6 months prior to the expiry date of the Senior Authorised Check Controller authorisation.

Senior Authorised Check Controller shall not exercise the privileges of their Senior Authorised Check Controller authorisation if their Authorised Check Controller authorisation is not valid.

### **18.8.3.3 Requirements on training**

18.8.3.3.1 The ANSP shall establish an appropriate training programme approved by CASAS for its air traffic controllers to maintain the competency of its air traffic controllers. The ANSP shall review its training programme periodically to ensure that it remains relevant.

18.8.3.3.2 The ANSP shall ensure that recurrent training is provided to its air traffic controllers according CARS Part 18.8.3.2.7. The recurrent training shall include, but is not limited to, the handling of aircraft emergencies and operations under conditions with failed and degraded facilities and systems.

18.8.3.3.3 The ANSP shall ensure that its air traffic controllers are provided with appropriate training in order to ensure efficient teamwork.

18.8.3.3.4 The ANSP shall ensure that its air traffic controllers are appropriately trained prior to the implementation of changes to ATC systems and procedures.

18.8.3.3.5 The ANSP shall ensure that an air traffic controller who performs operational instructional duties, including those related to recency requirements stated under paragraph 18.8.3.5, fulfill the requirements as an On-The-Job Training Instructor (OJTI) as stated CARS Part 2 Personnel Licensing

### **18.8.3.4 Requirements on assessments**

18.8.3.4.1 The ANSP shall ensure that an annual assessment (i.e. proficiency checks) is conducted on each of its air traffic controllers during his deployment as operational air traffic controller, to ensure that he continues to possess the required competencies.

18.8.3.4.2 The ANSP shall implement and establish a mechanism to monitor the operational performance of its air traffic controllers.

18.8.3.4.3 The ANSP shall submit a quarterly report to the CASAS containing:

- (a) a summary of the results of the annual assessments done in the last 3 months, and follow-up actions where appropriate; and
- (b) a summary of the operational performance monitoring done in the last 3 months, and follow-up actions where appropriate.

### 18.8.3.5 Requirements on recency

18.8.3.5.1 The ANSP shall set up and maintain a system to ensure that each of its air traffic controllers satisfies the recency requirements in relation to their air traffic controller ratings.

18.8.3.5.2 The ANSP shall ensure that each of its air traffic controllers who does not satisfy the recency requirements undergoes appropriate re-training, supervision and assessment programmes.

### 18.8.4 Safety Management System

18.8.4.1 The ANSP shall implement a safety management system (SMS) acceptable to the CASAS that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

18.8.4.2 The framework for the implementation and maintenance of a safety management system must include, as a minimum, the elements as listed in IS 18.8.1.2.

18.8.4.3 A safety management system shall clearly define lines of safety accountability throughout the air traffic services provider, including a direct accountability for safety on the part of senior management.

18.8.4.4 All activities undertaken in an ATS SMS shall be fully documented. All documentation shall be kept for a minimum of 3 years.

18.8.4.5 The ANSP shall submit the SMS manual and relevant materials to illustrate its implementation to CASAS for acceptance.

18.8.4.6 The ANSP shall submit any amendments to the SMS manual to the CASAS for acceptance in a timely manner prior to implementation.

18.8.4.7 The ANSP must establish and implement a mechanism to review and mitigate any deficiencies identified for Suriname within the framework of ICAO's Planning and Implementation Regional Group. Where there are such deficiencies, the ANSP must inform the CASAS immediately, and provide periodic updates on the actions taken by the ANSP to address such deficiencies until they are eliminated or mitigated to a level acceptable by the CASAS.

18.8.4.8 The ANSP shall propose safety performance indicators (SPIs), alert levels and target levels for the CASAS agreement. These shall:

- a) be pertinent to the ANSP's aviation activities;
- b) be commensurate with the scope and complexity of the ANSP's aviation activities.
- c) be congruent with the relevant safety indicators in the Suriname State Safety Programme; and
- d) include a combination of high and lower-consequence SPIs as appropriate.

18.8.4.9 The ANSP shall submit a report on its achievement of the SPIs to the CASAS on an agreed time interval.

18.8.4.10 The ANSP shall establish and maintain a hazard database for the analysis of the hazards.

## 18.9 ATS OPERATING REQUIREMENTS

### 18.9.1 ATS Operations manuals

- 18.9.1.1 An air traffic service provider shall provide, for compliance by its personnel, an ATS operations manual or system of manuals for the services including the objectives of ATS prescribed in paragraph 18.2.2.
- 18.9.1.2 An air traffic service provider providing more than one air traffic service from more than one location, may publish a core manual together with manual supplements specific to each service or location.
- 18.9.1.3 The contents and format of an operations manual for air traffic management is prescribed in implementing standard 18.9.1.

### 18.9.2 Denial of ATC clearance

- 18.9.2.1 An air traffic service provider, in respect of an aerodrome control service shall not deny the pilot of an aircraft an ATC clearance on the basis of non-payment of charges owed to the provider unless:
- (1) the aircraft is on the ground; and
  - (2) that clearances is for entry onto the maneuvering area.
- 18.9.2.2 The aerodrome control service shall continue to provide normal ATC service for any aircraft entering the maneuvering area without an ATC clearance.

### 18.9.3 Deviation from an ATC clearance

- 18.9.3.1 Subject to paragraph 18.2.3.2, each air traffic service provider, in respect of an air traffic control service shall establish procedures to ensure that instructions issued to restore any loss of separation do not hinder the responses of a pilot to:
- (1) TCAS alerts; or
  - (2) weather, or other emergency situations, necessitating a deviation from an ATC clearance.
- 18.9.3.2 The procedures required by paragraph 18.2.3.1 shall ensure that, once the emergency situation has been resolved, if any separation has been lost it is restored.

### 18.9.4 Suspension of VFR operations

An air traffic service provider in respect of an approach control service or aerodrome control service may, when appropriate for safety reasons, suspend any or all controlled VFR operations within a control zone.

### 18.9.5 Altimeter setting procedures

An air traffic service provider shall establish a procedure to ensure that:

- (a) QNH altimeter settings are in hectopascals rounded down to the nearest whole hectopascal; and
- (b) the appropriate aerodrome or area QNH setting is provided to all aircraft on initial radio contact, including aircraft that advise having received the current applicable ATIS broadcast; and
- (c) ATS units provide to an aircraft, on request, the current applicable aerodrome or area QNH altimeter setting; and
- (d) aircraft required to maintain vertical position by reference to a QNH setting use the appropriate area QNH for flight at or below the transition altitude except that the appropriate aerodrome QNH is used:

- (i) for take-off, landing and flight within an aerodrome circuit; and
- (ii) intermediate and final approach of an instrument approach procedure; and
- (e) flight in a control zone; and
- (f) notwithstanding paragraph above, where vertical separation is being applied by ATC, a common QNH shall be applied to aircraft concerned.

### 18.9.6 Flight plans

- 18.9.6.1 An air traffic service provider shall establish procedures for the acceptance and organization of flight plans.
- 18.9.6.2 An air traffic service provider shall ensure that the acceptance procedures required by paragraph 18.2.6.1 include, for the first ATS unit receiving a filed flight plan:
- (a) a check for compliance with any prescribed flight plan format and data conventions; and
  - (b) a check for completeness, and to the extent practical, for accuracy; and
  - (c) provision for any action necessary to make the plan acceptable to ATS.
- 18.9.6.3 An air traffic service provider intending to provide air traffic services from more than one location may nominate a single ATS unit within the provider's organization to accept filed flight plans on behalf of any or every unit.
- 18.9.6.4 An air traffic services provider intending to operate a centralized flight planning office shall ensure the office is equipped with:
- (a) AFTN, facsimile, and computer data-link connection facilities, for the acceptance of flight plans from aircraft operators and any other ATS unit; and
  - (b) facilities for the advance filing, retention, and activation of standard or repetitive elements of flight plan information.

### 18.9.7 Action after serious incident or accident

An air traffic service provider shall establish procedures regarding a serious incident or accident to:

- (a) determine if any air navigation facilities have contributed to the event; and
- (b) ensure immediate action is taken to:
  - (i) warn other aircraft that may be using or intending to use the facilities; and
  - (ii) advise the operator of the facility of the occurrence, and that the facility may be implicated; and
- (c) assist the operator of the facility with the prompt promulgation of any decision to withdraw the equipment from service; and
- (d) ensure that any facility identified in paragraph (a) is not used in the provision of separation to IFR aircraft until cleared for use by the relevant holder of an aeronautical facility technician.
- (e) activate a "stand-down" of ATS personnel, where applicable.

### 18.9.8 Incidents

An air traffic service provider shall establish procedures for:

- (1) the notification, investigation, and reporting of incidents in accordance with CARS Part 14; and
- (2) the forwarding of facility malfunction reports to the Aeronautical Information services.



**18.9.9 Records**

- 18.9.9.1 An air traffic service provider shall establish systems and procedures to identify, collect, index, file, store, secure, maintain, access, and dispose of, records necessary for—
- (1) the operational provision of air traffic services; and
  - (2) the purpose of assisting with any accident or incident investigation.
- 18.9.9.2 The records shall include:
- (1) telephone communications; and
  - (2) radio broadcasts and communications; and
  - (3) air-ground digital data exchanges; and
  - (4) ADS information; and
  - (5) filed flight plans including standard and repetitive plans; and
  - (6) flight progress strips; and
  - (7) staff duty rosters; and
  - (8) appropriate meteorological and aeronautical information, except where the information is retained for an equivalent period by a meteorological organization; and
  - (9) a record of each internal quality assurance review carried; the record shall detail the activities reviewed and any necessary follow-up corrective and preventive actions; and
  - (10) a record of each safety management assessments carried out under the safety management programmes required by 18.2.29 ; the record shall detail the activities reviewed and any necessary follow-up corrective and preventive actions.
- 18.9.9.3 The air traffic service provider shall establish systems and procedures to ensure the electronic recording of:
- (1) all ATS radio and telephone communications; and
  - (2) all high-frequency air-ground communications; and
  - (3) all relevant data obtained through automatic dependent surveillance (ADS), used in providing or supporting an ATC service; and
  - (4) for any equipment coming into service after the date these Regulations come into force, any transfer and acceptance of control process not conducted by telephone.
- 18.9.9.4 The air traffic service provider shall establish systems and procedures to ensure that electronic records required by paragraph 18.9.9.3:
- (1) include time recording, correct to within 5 seconds of UTC, as determined by reference to a standard time station or GPS time standard; and
  - (2) either:
    - (i) replicate the voice communications, and, if applicable, the ADS picture, applying at the particular operating position; or
    - (ii) are accompanied by a statement fully describing the differences between the recording supplied and a recording in accordance with subparagraph (i)
- 18.9.9.5 For the purposes of paragraph 18.9.9.4 (2) the term ADS picture includes any visual presentation of aircraft position, however derived.
- 18.9.9.6 The option provided by paragraph 18.9.9.4(2)(ii) shall apply only to equipment in service on the date these Regulations come into force.
- 18.9.9.7 The air traffic service provider shall establish systems and procedures to ensure that all records, except where replication is required by paragraph 18.9.9.4 (2)(i), are of sufficient clarity to convey the required information.

18. 9.9.8 The air traffic service provider shall establish procedures to ensure that the records referred to in paragraph 18.9.9.2 are retained for 31 days from the date of entry except for:

- (1) staff duty rosters; and
- (2) written records associated with service disruptions which shall be retained for 2 years.

#### 18. 9.10 Logbooks and position logs

18. 9.10.1 An air traffic service provider shall establish procedures to ensure that a logbook, with sequentially numbered pages, is kept at each ATS unit, and, where a unit has physically separate operations areas, at each such location within the unit.

18. 9.10.2 The procedure shall ensure that:

- (1) the logbook is maintained by the senior person on duty, or the person on watch at a nominated operating position; and
- (2) the logbook is maintained throughout the hours of watch of the unit or operations room; and
- (3) all entries include the time of entry; and
- (4) the person responsible for maintaining a logbook signs On Watch, and effects transfer of responsibility by successive On Watch entries; and
- (5) logbook entries are:
  - (i) in chronological sequence and in ink; and
  - (ii) without erasure, defacement, or obliteration; and
  - (iii) corrected by drawing a single line through the erroneous information and initialing the correction; and
- (6) actual times of opening and closing watch are recorded in the logbook, together with the reason for every variation from published hours of service; and
- (7) logbooks are retained for a period of 5 years from the date of final entry.

18.9.10.3 The air traffic service provider shall establish a procedure to ensure the keeping of an operating position log, when such information is not available in the logbook required by paragraph 18.9.10.1.

The procedure shall ensure that the operating position log:

- (a) contains sufficient information to identify:
  - (i) when that position was in operation; and
  - (ii) the services being provided from that position; and
  - (iii) the identity of the individual providing the service; and
- (b) is retained for a period of 31 days from the date of filing.

#### 18.9.11 Shift administration

An air traffic service provider shall establish a procedure to ensure that:

- (a) adequate time is provided at the beginning and end of each shift, for the performance of those duties required:
  - (i) before providing an air traffic service; and
  - (ii) after ceasing to provide an air traffic service; and
- (b) a minimum of 5 minutes is provided for each transfer of watch at an ATS operational position..

**18.9.12 Withdrawal or reduce the hours of service**

18.9.12.1 An air traffic service provider who wishes to permanently withdraw an air traffic service shall give the CASAS at least 90 days' notice of the proposal and include in that notice a summary of factors considered in arriving at the decision to withdraw the service.

18.9.12.2 An air traffic service provider who intends to permanently reduce the hours of operation of an air traffic service shall provide to the CASAS advance notice of, and the reasons for, the proposed reduction.

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**CIVIL AVIATION REGULATIONS  
SURINAME**

**PART 18 – IMPLEMENTING STANDARDS**

**VERSION 2.0**

**DATE JULY 2022**

For ease of reference, the number assigned to each implementing standard corresponds to its associated regulation. For example, IS: 18.2.2.2 would reflect a standard required in subsection 18.2.2.2.

## IS: 18.2.6      ATS AIRSPACE CLASSES — SERVICES PROVIDED AND FLIGHT REQUIREMENTS

Class	Type of flight	Separation provided	Service provided	Speed limitation*	Radio communication requirement	Subject to an ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
B	IFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	All aircraft	Air traffic control service	Not applicable	Continuous two-way	Yes
C	IFR	IFR from IFR IFR from VFR	Air traffic control service	Not applicable	Continuous two-way	Yes
	VFR	VFR from IFR	1) Air traffic control service for separation from IFR; 2) VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
D	IFR	IFR from IFR	Air traffic control service, traffic information about VFR flights (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	IFR/VFR and VFR/VFR traffic information (and traffic avoidance advice on request)	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
E	IFR	IFR from IFR	Air traffic control service and, as far as practical, traffic information about VFR flights	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	Yes
	VFR	Nil	Traffic information as far as practical	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
F	IFR	IFR from IFR as far as practical	Air traffic advisory services; Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No
G	IFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	Continuous two-way	No
	VFR	Nil	Flight information service	250 kt IAS below 3 050 m (10 000 ft) AMSL	No	No

\* When the height of the transition altitude is lower than 3 050 m (10 000 ft) AMSL, FL 100 should be used in lieu of 10 000 ft

**IS: 18.2.7      PRINCIPLES GOVERNING THE IDENTIFICATION  
OF NAVIGATION SPECIFICATIONS AND THE IDENTIFICATION  
OF ATS ROUTES OTHER THAN STANDARD DEPARTURE  
AND ARRIVAL ROUTES**

*(Chapter 18.2.7 and 18.2.13 refer)*

*Note.— See I.S 18.2.13 concerning the identification of standard departure and arrival routes and associated procedures. Guidance material on the establishment of these routes and procedures is contained in the Air Traffic Services Planning Manual (Doc 9426).*

**1. Designators for ATS routes and navigation specifications**

1.1 The purpose of a system of route designators and navigation specification(s) applicable to specified ATS route segment(s), route(s) or area is to allow both pilots and ATS, taking into account automation requirements:

- a) to make unambiguous reference to any ATS route without the need to resort to the use of geographical coordinates or other means in order to describe it;
- b) to relate an ATS route to a specific vertical structure of the airspace, as applicable;
- c) to indicate a required level of navigation performance accuracy, when operating along an ATS route or within a specified area; and
- d) to indicate that a route is used primarily or exclusively by certain types of aircraft.

1.2 In order to meet this purpose, the designation system shall:

- a) permit the identification of any ATS route in a simple and unique manner;
- b) avoid redundancy;
- c) be usable by both ground and airborne automation systems;
- d) permit utmost brevity in operational use; and
- e) provide sufficient possibility of extension to cater for any future requirements without the need for fundamental changes

1.3 Controlled, advisory and uncontrolled ATS routes, with the exception of standard arrival and departure routes, shall therefore be identified as specified hereafter.

## 2 Composition of designator

- 2.1 The ATS route designator shall consist of a basic designator supplemented, if necessary, by:
- a) one prefix as prescribed in 2.3; and
  - b) one additional letter as prescribed in 2.4.
- 2.1.1 The number of characters required to compose the designator shall not exceed six characters.
- 2.1.2 The number of characters required to compose the designator should, whenever possible, be kept to a maximum of five characters.
- 2.2 The basic designator shall consist of one letter of the alphabet followed by a number from 1 to 999.
- 2.2.1 Selection of the letter shall be made from those listed hereunder:
- (a) A, B, G, R for routes which form part of the regional networks of ATS routes and are not area navigation routes;
  - (b) L, M, N, P for area navigation routes which form part of the regional networks of ATS routes;
  - (c) H, J, V, W for routes which do not form part of the regional networks of ATS routes and are not area navigation routes;
  - (d) Q, T, Y, Z for area navigation routes which do not form part of the regional networks of ATS routes.
- 2.3 Where applicable, one supplementary letter shall be added as a prefix to the basic designator in accordance with the following:
1. K to indicate a low-level route established for use primarily by helicopters;
  2. U to indicate that the route or portion thereof is established in the upper airspace;
  3. S to indicate a route established exclusively for use by supersonic aircraft during acceleration, deceleration and while in supersonic flight.
- 2.4 When prescribed by the ANSP or on the basis of regional air navigation agreements, a supplementary letter may be added after the basic designator of the ATS route in question in order to indicate the type of service provided or the turn performance required on the route in question in accordance with the following:
- a) the letter F to indicate that on the route or portion thereof advisory service only is provided;
  - b) the letter G to indicate that on the route or portion thereof flight information service only is provided.

*Note — Implementation of a route or a portion thereof as controlled route, advisory route or flight information route is indicated in aeronautical charts and aeronautical information publications in accordance with the provisions in CARS Part 15 and CARS Part 20.*

## 3 Assignment of basic designators

- 3.1 Basic ATS route designators shall be assigned in accordance with the following principles.
- 3.1.1 The same basic designator shall be assigned to a main trunk route throughout its entire length, irrespective of terminal control areas, States or regions traversed.

*Note.— This is of particular importance where automated ATS data processing and computerized airborne navigation equipment is used.*

- 3.1.2 Where two or more trunk routes have a common segment, the segment in question shall be assigned each of the designators of the routes concerned, except where this would present difficulties in the provision of air traffic service, in which case, by common agreement, one designator only shall be assigned.
- 3.1.3 A basic designator assigned to one route shall not be assigned to any other route.
- 3.1.4 States requirements for designators shall be notified to the Regional Offices of ICAO for coordination.
- 4. Use of designators in communications**
- 4.1 In printed communications, the designator shall be expressed at all times by not less than two and not more than six characters.
- 4.2 In voice communications, the basic letter of a designator shall be spoken in accordance with the ICAO spelling alphabet.
- 4.3 Where the prefixes K, U or S specified in 2.3 are used, they shall, in voice communications, be spoken as follows:
- K — KOPTER  
U — UPPER  
S — SUPERSONIC
- The word “kopter” shall be pronounced as in the word “helicopter” and the words “upper” and “supersonic” as in the English language.
- 4.4 Where the letters “F” or “G” specified in 2.4 are used, the flight crew should not be required to use them in voice communications.

**IS: 18.2.13 PRINCIPLES GOVERNING THE IDENTIFICATION OF STANDARD DEPARTURE AND ARRIVAL ROUTES AND ASSOCIATED PROCEDURES**  
*(Chapter 18.2, 18.2.13 refers)*

**1.0 Designators for standard departure and arrival routes and associated procedures**

*Note.— In the following text the term “route” is used in the meaning of “route and associated procedures”.*

- 1.1 The system of designators shall:
- a) permit the identification of each route in a simple and unambiguous manner;
  - b) make a clear distinction between:
    - departure routes and arrival routes;
    - departure or arrival routes and other ATS routes;
    - routes requiring navigation by reference to ground-based radio aids or self-contained airborne aids, and routes requiring navigation by visual reference to the ground;
  - c) be compatible with ATS and aircraft data processing and display requirements;
  - d) be of utmost brevity in its operational application;
  - e) avoid redundancy;
  - f) provide sufficient possibility for extension to cater for any future requirements without the need for fundamental changes.



- 1.2 Each route shall be identified by a plain language designator and a corresponding coded designator.
- 1.3 The designators shall, in voice communications, be easily recognizable as relating to a standard departure or arrival route and shall not create any difficulties in pronunciation for pilots and ATS personnel.
- 2 Composition of designators**
- 2.1 Plain language designator
- 2.1.1 The plain language designator of a standard departure or arrival route shall consist of:
- a) a basic indicator; followed by
  - b) a validity indicator; followed by
  - c) a route indicator, where required; followed by
  - d) the word "departure" or "arrival"; followed by
  - e) the word "visual", if the route has been established for use by aircraft operating in accordance with the visual flight rules (VFR).
- 2.1.2 The basic indicator shall be the name or name-code of the significant point where a standard departure route terminates or a standard arrival route begins.
- 2.1.3 The validity indicator shall be a number from 1 to 9.
- 2.1.4 The route indicator shall be one letter of the alphabet. The letters "I" and "O" shall not be used.
- 2.2 Coded designator
- The coded designator of a standard departure or arrival route, instrument or visual, shall consist of:
- a) the coded designator or name-code of the significant point described in 2.1.1 a); followed by
  - b) the validity indicator in 2.1.1 b); followed by
  - c) the route indicator in 2.1.1 c), where required.
- Note.— Limitations in the display equipment on board aircraft may require shortening of the basic indicator, if that indicator is a five-letter name-code, e.g. KODAP. The manner in which such an indicator is shortened is left to the discretion of operators.*
- 3.0 Assignment of designators**
- 3.1 Each route shall be assigned a separate designator.
- 3.2 To distinguish between two or more routes which relate to the same significant point (and therefore are assigned the same basic indicator), a separate route indicator as described in 2.1.4 shall be assigned to each route.
- 4.0 Assignment of validity indicators**
- 4.1 A validity indicator shall be assigned to each route to identify the route which is currently in effect.
- 4.2 The first validity indicator to be assigned shall be the number "1".
- 4.3 Whenever a route is amended, a new validity indicator, consisting of the next higher number, shall be assigned. The number "9" shall be followed by the number "1".

## 5.0 Examples of plain language and coded designators

### 5.1 *Example 1: Standard departure route — instrument:*

- a) Plain language           BRECON ONE  
designator:                 DEPARTURE
- b) Coded designator:     BCN 1

5.1.1 *Meaning:* The designator identifies a standard instrument departure route which terminates at the significant point BRECON (basic indicator). BRECON is a radio navigation facility with the identification BCN (basic indicator of the coded designator). The validity indicator ONE (1 in the coded designator) signifies either that the original version of the route is still in effect or that a change has been made from the previous version NINE (9) to the now effective version ONE (1) (see 4.3). The absence of a route indicator (see 2.1.4 and 3.2) signifies that only one route, in this case a departure route, has been established with reference to BRECON.

### 5.2 *Example 2: Standard arrival route — instrument:*

- a) Plain language           KODAP TWO ALPHA  
designator:                 ARRIVAL
- b) Coded designator:     KODAP 2 A

5.2.1 *Meaning:* This designator identifies a standard instrument arrival route which begins at the significant point KODAP (basic indicator). KODAP is a significant point not marked by the site of a radio navigation facility and therefore assigned a five-letter name-code in accordance with IS 18.2.15. The validity indicator TWO (2) signifies that a change has been made from the previous version ONE (1) to the now effective version TWO (2). The route indicator ALPHA (A) identifies one of several routes established with reference to KODAP and is a specific character assigned to this route.

### 5.3 *Example 3: Standard departure route — visual:*

- a) Plain language           ADOLA FIVE BRAVO  
designator                 DEPARTURE VISUAL
- b) Coded designator:     ADOLA 5 B

5.3.1 *Meaning:* This designator identifies a standard departure route for controlled VFR flights which terminates at ADOLA, a significant point not marked by the site of a radio navigation facility. The validity indicator FIVE (5) signifies that a change has been made from the previous version FOUR (4) to the now effective version FIVE (5). The route indicator BRAVO (B) identifies one of several routes established with reference to ADOLA.

## 6.0 Composition of designators for MLS/RNAV approach procedures

### 6.1 Plain language designator

6.1.1 The plain language designator of an MLS/RNAV approach procedure shall consist of:

- a) "MLS"; followed by
- b) a basic indicator, followed by
- c) a validity indicator; followed by
- d) a route indicator; followed by
- e) the word "approach"; followed by
- f) the designator of the runway for which the procedure is designed.

- 6.1.2 The basic indicator shall be the name or name-code of the significant point where the approach procedure begins.
- 6.1.3 The validity indicator shall be a number from 1 to 9.
- 6.1.4 The route indicator shall be one letter of the alphabet. The letters “I” and “O” shall not be used.
- 6.1.5 The designator of the runway shall be in accordance with CARS part 12 (aerodromes). (Annex 14 Volume I, 5.2.2)
- 6.2 Coded designator
- 6.2.1 The coded designator of an MLS/RNAV approach procedure shall consist of:
- “MLS”; followed by
  - the coded designator or name-code of the significant point described in 6.1.1b followed by
  - the validity indicator in 6.1.1 c); followed by
  - the route indicator in 6.1.1 d); followed by
  - the runway designator in 6.1.1 f).
- 6.3 Assignment of designators
- 6.3.1 The assignment of designators for MLS/RNAV approach procedures shall be in accordance with paragraph 3. Procedures having identical tracks but different flight profiles shall be assigned separate route indicators.
- 6.3.2 The route indicator letter for MLS/RNAV approach procedures shall be assigned uniquely to all approaches at an airport until all the letters have been used. Only then shall the route indicator letter be repeated. The use of the same route indicator for two routes using the same MLS ground facility shall not be permitted.
- 6.3.3 The assignment of validity indicator for approach procedures shall be in accordance with paragraph 4.
- 6.4 Example of plain language and coded designators
- 6.4.1 *Example:*
- Plain language designator: MLS HAPPY ONE ALPHA  
APPROACH RUNWAY ONE EIGHT LEFT
  - Coded designator MLS HAPPY 1 A 18L
- 6.4.2 *Meaning:* The designator identifies an MLS/RNAV approach procedure which begins at the significant point HAPPY (basic indicator). HAPPY is a significant point not marked by the site of a radio navigation facility and therefore assigned a five-letter name-code in accordance with IS 18.2.15. The validity indicator ONE (1) signifies that either the original version of the route is still in effect or a change has been made from the previous version NINE (9) to the now effective version ONE (1). The route indicator ALPHA (A) identifies one of several routes established with reference to HAPPY and is a specific character assigned to this route.

**7.0 Use of designators in communications**

7.1 In voice communications, only the plain language designator shall be used.

*Note.— For the purpose of identification of routes, the words “departure”, “arrival” and “visual” described in 2.1.1 d), and 2.1.1 e) are considered to be an integral element of the plain language designator.*

7.2 In printed or coded communications, only the coded designator shall be used.

**8.0 Display of routes and procedures to air traffic control**

8.1 A detailed description of each currently effective standard departure and/or arrival route/approach procedure, including the plain language designator and the coded designator, shall be displayed at the working positions at which the routes/procedures are assigned to aircraft as part of an ATC clearance, or are otherwise of relevance in the provision of air traffic control services.

8.2 Whenever possible, a graphic portrayal of the routes/ procedures shall also be displayed.

**IS: 18.2.15 PRINCIPLES GOVERNING THE ESTABLISHMENT AND IDENTIFICATION OF SIGNIFICANT POINTS**

*(Chapter 18.2, 18.2.15 refers)*

**1.0 Establishment of significant points**

1.1 Significant points shall, whenever possible, be established with reference to ground-based or space-based radio navigation aids, preferably VHF or higher frequency aids.

1.3 Where such ground-based or space-based radio navigation aids do not exist, significant points shall be established at locations which can be determined by self-contained airborne navigation aids, or, where navigation by visual reference to the ground is to be effected, by visual observation. Specific points may be designated as “transfer of control” points by agreement between adjacent air traffic control units or control positions concerned.

**2.0 Designators for significant points marked by the site of a radio navigation aid**

2.1 Plain language name for significant points marked by the site of a radio navigation aid

2.1.1 Whenever practicable, significant points shall be named with reference to an identifiable and preferably prominent geographical location.

2.1.2 In selecting a name for the significant point, care shall be taken to ensure that the following conditions are met:

- a) the name shall not create difficulties in pronunciation for pilots or ATS personnel when speaking in the language used in ATS communications. Where the name of a geographical location in the national language selected for designating a significant point gives rise to difficulties in pronunciation, an abbreviated or contracted version of this name, which retains as much of its geographical significance as possible, shall be selected;

Example: FUERSTENFELDBRUCK = FURSTY

- b) the name shall be easily recognizable in voice communications and shall be free of ambiguity with those of other significant points in the same general area. In addition, the name shall not create confusion with respect to other communications exchanged between air traffic services and pilots;
- c) the name shall, if possible, consist of at least six letters and form two syllables and preferably not more than three;
- d) the selected name shall be the same for both the significant point and the radio navigation aid marking it.

## 2.2 Composition of coded designators for significant points marked by the site of a radio navigation aid

2.2.1 The coded designator shall be the same as the radio identification of the radio navigation aid. It shall be so composed, if possible, as to facilitate association with the name of the point in plain language.

2.2.2 Coded designators shall not be duplicated within 1 100 km (600 NM) of the location of the radio navigation aid concerned, except as noted hereunder.

*Note.— When two radio navigation aids operating in different bands of the frequency spectrum are situated at the same location, their radio identifications are normally the same.*

2.3 Suriname's requirements for coded designators shall be notified to the Regional Offices of ICAO for coordination.

## 3 Designators for significant points not marked by the site of a radio navigation aid

3.1 Where a significant point is required at a position not marked by the site of a radio navigation aid, and is used for ATC purposes, it shall be designated by a unique five-letter pronounceable "name-code". This name-code designator then serves as the name as well as the coded designator of the significant point.

3.2 This name-code designator shall be selected so as to avoid any difficulties in pronunciation by pilots or ATS personnel when speaking in the language used in ATS communications.

Examples: ADOLA, KODAP

3.3 The name-code designator shall be easily recognizable in voice communications and shall be free of ambiguity with those used for other significant points in the same general area.

3.4 The unique five-letter pronounceable name-code designator assigned to a significant point shall not be assigned to any other significant point. When there is a need to relocate a significant point, a new name-code designator shall be chosen. In cases when a State wishes to keep the allocation of specific name-codes for reuse at a different location, such name-codes shall not be used until after a period of at least six months.

3.5 Suriname's requirements for unique five-letter pronounceable name-code designators shall be notified to the Regional Offices of ICAO for coordination.

3.6 In areas where no system of fixed routes is established or where the routes followed by aircraft vary depending on operational considerations, significant points shall be determined and reported in terms of World Geodetic System — 1984 (WGS-84) geographical coordinates, except that

permanently established significant points serving as exit and/or entry points into such areas shall be designated in accordance with the applicable provisions in 2 or 3.

#### 4.0 Use of designators in communications

4.1 Normally the name selected in accordance with 2 or 3 shall be used to refer to the significant point in voice communications. If the plain language name for a significant point marked by the site of a radio navigation aid selected in accordance with 2.1 is not used, it shall be replaced by the coded designator which, in voice communications, shall be spoken in accordance with the ICAO spelling alphabet.

4.2 In printed and coded communications, only the coded designator or the selected name-code shall be used to refer to a significant point.

#### 5.0 Significant points used for reporting purposes

5.1 In order to permit ATS to obtain information regarding the progress of aircraft in flight, selected significant points may need to be designated as reporting points.

5.2 In establishing such points, consideration shall be given to the following factors:

- a) the type of air traffic services provided;
- b) the amount of traffic normally encountered;
- c) the accuracy with which aircraft are capable of adhering to the current flight plan;
- d) the speed of the aircraft;
- e) the separation minima applied;
- f) the complexity of the airspace structure;
- g) the control method(s) employed;
- h) the start or end of significant phases of a flight (climb, descent, change of direction, etc.);
- i) transfer of control procedures;
- j) safety and search and rescue aspects;
- k) the cockpit and air-ground communication workload.

5.3 Reporting points shall be established either as “compulsory” or as “on-request”.

5.4 In establishing “compulsory” reporting points the following principles shall apply:

- a) compulsory reporting points shall be limited to the minimum necessary for the routine provision of information to air traffic services units on the progress of aircraft in flight, bearing in mind the need to keep cockpit and controller workload and air-ground communications load to a minimum;
- b) the availability of a radio navigation aid at a location shall not necessarily determine its designation as a compulsory reporting point;
- c) compulsory reporting points shall not necessarily be established at flight information region or control area boundaries.

5.5 “On-request” reporting points may be established in relation to the requirements of air traffic services for additional position reports when traffic conditions so demand.

5.6 The designation of compulsory and on-request reporting points shall be reviewed regularly with a view to keeping the requirements for routine position reporting to the minimum necessary to ensure efficient air traffic services.

- 5.7 Routine reporting over compulsory reporting points shall not systematically be made mandatory for all flights in all circumstances. In applying this principle, particular attention shall be given to the following:
1. high-speed, high-flying aircraft shall not be required to make routine position reports over all reporting points established as compulsory for low-speed, low-flying aircraft;
  2. aircraft transiting through a terminal control area shall not be required to make routine position reports as frequently as arriving and departing aircraft.
- 5.8 In areas where the above principles regarding the establishment of reporting points would not be practicable, a reporting system with reference to meridians of longitude or parallels of latitude expressed in whole degrees may be established.

#### IS: 18.2.28.1.a 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).

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.
2. States shall require that the air traffic services provider identify a process for assigning unscheduled duties that allows air traffic controllers to avoid extended periods of being awake.
3. The processes established by States in accordance with 18.2.28.3 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.

**I.S. 18.2.28.1.b FATIGUE RISK MANAGEMENT SYSTEM (FRMS) REQUIREMENTS**

Note.— Guidance on the development and implementation of FRMS regulations is contained in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).

Suriname shall require that an FRMS contain, at a minimum:

**1. FRMS policy and documentation****1.1 FRMS policy**

1.1.1 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 periods of time-in-position in a duty period with significant deviations and reasons for deviations noted; and

Note.— Significant deviations are described in the Manual for the Oversight of Fatigue Management Approaches (Doc 9966).

- g) FRMS outputs including findings from collected data, recommendations, and actions taken.

**2. Fatigue risk management processes****2.1 Identification of fatigue-related hazards .**

Note.— Provisions on the protection of safety information are contained in CARS Part 23, 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:

- 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;
- 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.

## 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 programs 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.

### IS: 18.2.32      ATS CONTINGENCIES

#### 1.0      AIR NAVIGATION PARTIAL OR TOTAL DISRUPTION

##### 1.1      PURPOSE

Air traffic services providers shall develop and implement contingency plans in the event of disruption, or potential disruption of air navigation services and related supporting services. The contingency plan shall provide alternative means of ensuring a safe and orderly flow of air traffic within the designated airspaces while the air traffic services provider is taking necessary actions to restore normal operations.

##### 1.2      REFERENCES

- 1.2.1      Civil Aviation Regulation Suriname CARS Part 18
- 1.2.2      Doc 9426 Part II ATS Planning Manual

##### 1.3      GUIDANCE INFORMATION

###### 1.3.1      Scope

The Air traffic services contingency plan shall cover all aspects of ANS including Air Traffic Management, Communication, Navigation and Surveillance, Aeronautical Information Services and supporting services.

### 1.3.2 Status of contingency plans

Contingency plans are intended to provide alternative facilities and services when those normally provided are temporarily not available. Contingency arrangements are therefore temporary in nature, remain in effect only until the normal services and facilities are re-activated and, accordingly, do not constitute amendments thereto.

### 1.3.3 Factors that may lead to disruption of services

1.3.3.1 Air traffic services provider must recognize the fact that circumstances before and during events causing disruptions of services to civil aviation, vary widely and that contingency measures, in response to specific events and circumstances must be adapted to these circumstances.

1.3.3.2 The factors that may lead to disruptions of services to civil aviation includes, but are not limited to;

- a) Partial or total withdrawal of Air Navigation Services due to failure of air navigation facilities.
- b) Partial or total withdrawal of Air Navigation Services personnel during or following an industrial action or labor unrest.
- c) Partial or total withdrawal of Air Navigation Services due to natural disasters.
- d) Failure of a particular operating procedure or a combination thereof.

### 1.3.4 Responsibility for development, promulgating and implementing the contingency plan

1.3.4.1 The Air traffic services provider is responsible for the conduct of contingency planning including measures to be taken into consideration in developing, applying and terminating the application of such plans within the Paramaribo CTA/UTA/ FIR.

1.3.4.2 The same requirement will apply in respect of ;

- a) airspace over the high seas delegated to the Paramaribo until, and unless, that responsibility is temporarily reassigned by ICAO to another State
- b) airspace where the responsibility for providing the services has been delegated by another State to Suriname until, and unless, the delegating State terminates temporarily the delegation

1.3.4.3 Considering that disruption of services in a particular airspace is likely to significantly affect the services in adjacent airspaces, there is need for international co-ordination in the field of contingency planning.

1.3.4.4 The contingency plans shall be developed in close co-ordination with ICAO and the Air Navigation Services Authorities responsible for the adjacent portions of airspace and, as far as practicable, with airspace users concerned and with any civil or military agencies which may be affected or whose participation is necessary for effective implementation of the plan. Other international organizations including IATA, IFALPA etc may be valuable advisors on the practicability of overall plans and elements of such plans.

1.3.4.5 Considering that time is a factor in planning, preparatory action should be taken, as appropriate, to facilitate timely introduction of contingency arrangements. Such preparatory action should include:

- a) preparation of general contingency plans for introduction in respect of generally foreseeable events affecting the provision of air navigation services and/or supporting services
- b) monitoring of any developments which might lead to events requiring contingency arrangements to be developed and applied
- c) designating a unit which, in the event of disruption of services and introduction of contingency arrangements, would be able to provide during the 24 hours of the day, up-to-date information on the situation and associated contingency measures until the system has returned to normal

### 1.3.5 Contents of the contingency plan

The contents and procedures of the contingency plan will depend on the type of contingency being planned for and the local environment. The following is a list of the main items that need to be included in contingency plan.

- a) type of contingency
- b) areas of ANS that will be affected during the outage
- c) types of flights that will be affected
- d) expected duration of outage if known
- e) detailed procedures to be followed including possible alternative arrangements for providing the service,
- f) organizations involved in implementing the contingency plan
- g) list and contacts of key personnel involved
- h) facilities provided to facilitate the implementation
- i) the arrangements for resuming normal operations for the service
- j) responsibilities of personnel involved in implementing the plan
- k) line of authority
- l) procedures for liaison with external organizations including media
- m) checklist of specified activities for each particular contingency

### 1.3.6 Notification

Users of air navigation services shall immediately be notified of anticipated or actual disruption of air navigation services and/or related supporting services by NOTAM, including the associated contingency arrangements. Cancellation of the NOTAM shall follow as soon as it is determined that normal services have resumed.

### 1.3.7 Distribution of the contingency plan

The contingency plan will form part of the ATS Operations manual. However, since some of the main stake holders are not included in the ATS operations manual distribution list, a stand-alone copy of the contingency plan shall be provided to the organizations and individuals involved as may be listed in 4.3.5 above.

### 1.3.8 Amendments to the contingency plan

Contingency plans shall be reviewed at frequent intervals and when any operational change is planned to ensure their currency and continued efficacy. Action shall be taken to ensure that amendments are made available to all holders of the contingency plan.

**IS: 18.2.34 SURINAME RESPONSIBILITIES CONCERNING AN INSTRUMENT FLIGHT PROCEDURE DESIGN SERVICE***(Chapter 18.2, 18.2.34 refers)*

1. The ANSP 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 CASAS shall approve and the ANSP is responsible for all instrument flight procedures for aerodromes and airspace under the authority of the Suriname.
3. Instrument flight procedures shall be designed in accordance with The CASAS -approved design criteria.
4. The CASAS 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 SURINAME meets the requirements established by SURINAME regulatory framework.
5. The CASAS shall ensure that an instrument flight procedure design service provider utilizes a quality management system at each stage of the instrument flight procedure design process.
6. The CASAS shall ensure that maintenance and periodic review of instrument flight procedures for aerodromes and airspace under the authority of SURINAME are conducted. The CASAS shall establish an interval for periodic review of instrument flight procedures not exceeding five years.

**IS: 18.8.4.2 Safety Management System Framework**

The framework for the implementation and maintenance of a safety management system should include, as a minimum, the following 4 components and 12 elements:

1. Safety Policy and Objectives
  - (a) Management commitment and responsibility
  - (b) Safety accountabilities
  - (c) Appointment of key safety personnel
  - (d) Coordination of emergency response planning
  - (e) SMS documentation
2. Safety Risk Management
  - (a) Hazard identification
  - (b) Safety risk assessment and mitigation processes
3. Safety Assurance
  - (a) Safety performance monitoring and measurement
  - (b) Management of change
  - (c) Continuous improvement of the SMS
4. Safety Promotion
  - (a) Training and education
  - (b) Safety communication

Reference may also be made to ICAO SMM Document 9859 for any additional guidance where appropriate.

## I.S: 18.9.1 OPERATIONS MANUAL OF AIR TRAFFIC MANAGEMENT (OPS-MATM)

- (a) The Operations MATS is an ATS Provider's document detailing the applicable separations, procedures, instructions and information essential for the provision of air traffic services. The MATS shows how, when and where an ATS Provider provides, or proposes to provide air traffic services.
- (b) The ATS Provider shall ensure that any air traffic service it provides is in accordance with the standards in
  - (1) CARS part 18.
  - (2) Relevant Annexes to the International Convention on Civil Aviation;
  - (3) ICAO DOC 4444 – Rules of the Air and Air Traffic Services,
  - (4) ICAO DOC 9426 Air Traffic Services Planning Manual;
  - (5) International Aeronautical and Maritime Search and Rescue Manual (IAMSAR)
- (c) It is impracticable for the OPS-MATM to cater for all combinations of air traffic situations and that the use of any procedural standards is subject to the evaluation as to whether the required separation will be achieved in the circumstances at that time.
- (d) The production and maintenance of the MATS is the responsibility of the ATS Provider. Amendments to the OPS-MATM shall be provided to the CASAS preferably 14 days prior to the effective date.
- (e) The contents of the OPS-MATM should including the following:
  - (1) Table of contents based on items in the manual, indicating the page number on which each item begins;
  - (2) Description of the applicant's organization structure and a statement setting out the functions that the provider performs, or proposed perform
  - (3) Description of the chain of command established, or proposed to be established, by the provider and a statement of the duties and responsibilities of any supervisory positions within the organizational structure;
  - (4) A list of the air traffic services that the provider provides, or proposes to provide;
  - (5) A statement, for each air traffic service, showing the hours of operation of the service;
  - (6) A statement, for each air traffic service, that identifies the particular airspace within which the service is provided, or proposed to be provided;
  - (7) A statement, for each air traffic service, that identifies the location from where the service is provided;
  - (8) The airspace within which each service is to be provided. This may be by reference to an aeronautical chart;

If the service is an air traffic service for a controlled aerodrome:

- (i) a chart of the manoeuvring area of the aerodrome showing all runways, taxiways, parking areas, etc.
- (ii) extracts from the Airport Emergency Plan (AEP) relevant to the ATS functions,

(iii) a copy of the procedures as set out in the aerodrome manual for preventing unauthorised entry of persons or things onto the movement area of the aerodrome, and

(iv) a copy of the procedures set out in the aerodrome manual for the control of surface vehicles operating on or in the vicinity of the manoeuvring area;

(9) A statement of the responsibilities, functions and hours of operation for each operating position;

(10) A description of the arrangements made or proposed to be made by the provider to ensure that it has, and will continue to receive, on a daily basis, the information necessary for providing the service;

Examples of data sources normally required are:

- AIS
- NOTAM
- Meteorological information
- Voice coordination
- Aerodrome works and administration coordination
- Local and remote radar data
- Information concerning volcanic activity
- AFTN
- Flight notification
- Meteorological warning service
- Information on aerodrome conditions and the operational status of facilities and navigation aids
- AES coordination
- Information concerning radioactive material and toxic chemical clouds.

(11) A description of the arrangements made or proposed to be made by the provider to ensure that it has, and will continue to provide, information in connection with its air traffic services (including SAR alerting) to another person whose functions reasonably require that information;

(12) A description of the provider's record keeping system;

(13) Any agreement entered into by the provider in relation to the provision of any of the air traffic services;

(14) Document on the provider's Safety Management System and Quality Assurance System;

(15) The ATS Provider's Contingency Plan for the provision of air traffic services;

(16) The provider's security program;

(17) Procedures to be followed for revising the operations manual and other relevant aeronautical documents;

(18) Procedures to be followed to ensure that all operational staff are familiar with any operational changes that have been issued since the last performed operational duties;

(19) Description of the provider's training and checking program; and

- (20) Description of the procedures to be used in commissioning new facilities and equipment.
- (f) The OPS-MATM should include the following issued as supplementary instructions–
- (1) Local air traffic service instructions detailing procedures and information that are peculiar to the ATS functions at that unit or location; and
  - (2) Temporary air traffic service instructions detailing procedures and information of a temporary nature and not exceeding 180 days in duration.
- (g) The OPS-MATM and the supplementary instructions will be subject to updating resulting from, procedural changes or associated technological advances to the ATS systems. The ATS provider has the responsibility for having in place a document control system to ensure the documents are timely amended and read by staff.
- (h) Format of the OPS-MATM
- (1) The printed copy of the OPS-MATM should be -
    - (i) A4 size white paper: minimum font size 11-point; or
    - (ii) B5 size white papers, minimum font size 10 point; and
    - (iii) Easy to read font (e.g. Arial, Times Roman).
  - (2) Reproduction of the OPS-MATM via photocopying process, the font size should be retained.
  - (3) The OP-MATS should comprise of the following-

#### PART 1

RAC 1 Definitions and Data  
 RAC 2 Air Traffic Services, Organization and Safety Management  
 RAC 3 Coordination and Control of Flights  
 RAC 4 Aerodrome Control  
 RAC 5 Separations  
 RAC 6 Flight Information Service  
 RAC 7 Emergency Procedures  
 RAC 8 Air Traffic Service Messages and Flight Plan Handling  
 RAC 9 Flight Progress Strip System  
 RAC 10 Global Positioning System  
 RAC 11 Controller Pilot Data Link Communication  
 RAC 12 Automated Dependent Surveillance

#### PART 2

COM Communications  
 AIS Aeronautical Information Services  
 MET Meteorology  
 PEL Personnel Licensing  
 ADM Administration  
 EQP Equipment  
 GEN General



- (4) The Local Unit Orders should be prepared in the same general format as the OPSMATM with applicable subject matter arranged in sections as follows:
- EMG Emergency
  - RAC Rules of the Air and Air Traffic Services
  - COM Communications
  - AIS Aeronautical Information Services
  - MET Meteorology
  - PEL Personnel Licensing
  - ADM Administration
  - EQP Equipment
  - GEN General
- (5) The Temporary ATS Instructions should be consecutively numbered commencing from the first day of each calendar year (e.g. No. 001/00).

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