

**WP - Survey of drafts  
September 10<sup>th</sup>, 2007**

**GASR WG**

**Skeleton filling-in  
Survey of Available GAR1 Drafts**

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## Introduction

This paper is thought to be a survey or overview of the available flesh on the approved skeleton for the GASR Aerodromes Regulation, WP 105, currently referred as GAR1.

The purpose of this survey is to provide a view on what was done with regard to Annex 14 Volume I in drafting the GAR 1 to enable our group to forward it to EASA, as a base for the Implementing Rules of the European aerodrome safety standards.

The draft GAR 2 Heliports will have to observe the new version of Annex 14 Vol. II currently in the approval process by ICAO's Aerodromes Panel and its working groups. Currently available sections are only those referring to off-shore facilities, i.e. Helidecks - WPH 015, which is including the new developments that will be taken in to account in the new edition of ICAO Annex 14 Vol. II.

Missing reference to a specific GAR subpart and section means that the subject, take over from the ICAO Annex 14 was not approached.

<b>SUBPART x - xxxx</b>	<b>Initial content</b>	<b>Subpart x – WP xxx Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
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If a table has to split to be continued on the next page, the new table sequence will start again with the same table header.

Legend: **Subparts** and **Initial content** originate from WP 091 Reference Documents and Proposals for JAR – AGA Aerodrome. **Present content** is the latest content as agreed by the GASR WG.

Annex 14 Standard accepted in GAR is referred to as **no** if not accepted, **not applicable** if exceeding Annex 14 standards and **yes** if partly or wholly accepted.

# GAR CONTENTS

## SUBPART A – Applicability

This subpart is not more included in the GAR draft.  
The initial content of Subpart A is currently included in Subpart Z.

## SUBPART B - Aerodrome Certification Process

<b>SUBPART B - Aerodrome Certification Process</b>	<b>Initial content</b>	<b>Subpart B WP 106 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	General rules for Aerodrome Certification	GAR 1.B005 General	Yes
GAR1 1.XXX	Issue, variation and validity of certification	GAR 1.B010 Scope of Aerodrome Certification	Not applicable
GAR1 1.XXX	Administrative requirements	GAR 1.B020 Application for an aerodrome certificate	Not applicable
GAR1 1.XXX	Responsibility	Divided between the Regulator and Operator	Directed towards the State
GAR1 1.XXX	Certification of Aerodromes	GAR 1.B025 Grant, variation and validity of the aerodrome certificate (a) Grant of an aerodrome certificate (b) Variation to an aerodrome certificate (c) Refusal to issue an aerodrome certificate (d) Endorsement of conditions and variations on an aerodrome certificate (e) Validity of an aerodrome certificate (f) Surrender of an aerodrome certificate (g) Notification of change to an aerodrome certificate (h) Amendment of an aerodrome certificate (i) Revocation or suspension of an Aerodrome Certificate.	Not applicable
GAR1 1.XXX	Operational Safety Assurance Documentation (Aerodrome Manual System)	- moved to Subpart C	Yes
GAR1 1.XXX	Reference Code/Performance Class	- moved to Subpart F	Yes

## SUBPART C – Safety Management System Requirements

<b>SUBPART C – Safety Management System Requirements</b>	<b>Initial content</b>	<b>Subpart A – WP 108 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	Application	GAR 1.C005 General	Yes
GAR1 1.XXX	Safety objective	GAR 1.C009 Safety objective	Not applicable
GAR1 1.XXX	Safety Management Policy Statements	GAR 1.C010 Safety Management Policy Statement	Not applicable
GAR1 1.XXX	Safety Management principles	GAR 1.C011 Safety Management Competency	Not applicable
GAR1 1.XXX	Operational Safety Assurance Documentation	GAR 1.C015 Safety Indicators and safety targets	Not applicable
GAR1 1.XXX	Safety Assurance Documentation on systems requiring approval	GAR 1.C020 Safety Assessment	Not applicable
	-	GAR 1.C025 Safety Assessment Records	Not applicable
	-	GAR 1.C035 Safety Management Organisation	Not applicable
	-	GAR 1.C040 Safety Monitoring and reporting	Not applicable
	-	GAR 1.C045 Safety Audits	Not applicable
	-	GAR 1.C047 Safety Promotion	Not applicable
	-	GAR 1.C050 Document and Data control	Not applicable
	-	GAR 1.C055 Safety Assurance Documentation	Not applicable
		GAR 1.C060 Changes and modifications of a system	Not applicable

## SUBPART D – Operations and Services

<b>SUBPART D – Operations and Services</b>	<b>Initial content</b>	<b>Subpart A – WP 101 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	-	GAR 1D.005 General	Yes, Aerodrome Certificate and NAA access
GAR1 1.XXX	Aerodrome operations	GAR 1D.015 Agreements with contractors	Not applicable
GAR1 1.XXX	Obstacle management	GAR 1.D 020 Aerodrome Management Function	Not applicable
GAR1 1.XXX	Low visibility procedures	GAR 1.D 025 Aerodrome Management responsibilities	Not applicable
GAR1 1.XXX	Procedures for work in progress	GAR 1.D 030 Information to Staff	Yes
GAR1 1.XXX	Aerodrome emergency planning	GAR 1.D 035 Reporting	Not applicable
GAR1 1.XXX	Aerodrome Rescue and fire fighting	GAR 1.D 040 Operational Documentation Records	Not applicable
GAR1 1.XXX	Disabled aircraft removal	GAR 1.D 045 Access to Airside	Not applicable
GAR1 1.XXX	Maintenance	GAR 1.D 050 Condition of the Movement Area	Not applicable
GAR1 1.XXX	Wildlife Hazard Management	GAR 1.D 055 Aerodrome vehicle operations	Yes
GAR1 1.XXX	Apron management service	GAR 1.D 060 Marking and lighting of Vehicles and Equipment	Yes
GAR1 1.XXX	Airside safety management	GAR 1.D 065 Vehicles and use of Radio Equipment	Not applicable
GAR1 1.XXX	-	GAR 1.D 070 Clearance Distances to Aircraft	Yes
GAR1 1.XXX	-	GAR 1.D 075 Protected Areas, Manoeuvring Area, Approach and Departure Areas	Yes
GAR1 1.XXX	-	GAR 1.D 080 Aerodrome Vicinity Safety Protection	Yes
GAR1 1.XXX	-	GAR 1.D 085 Obstacle environment Programme and marking of temporary obstacles	Yes
GAR1 1.XXX	-	GAR 1.D 090 Wildlife hazard management	Yes

<b>SUBPART D – Operations and Services</b>	<b>Initial content</b>	<b>Subpart A – WP 101 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	-	GAR 1.D 095 Air Traffic Services	Not applicable
GAR1 1.XXX	-	GAR 1.D 100 Procedures for surface movement guidance and control	Yes
GAR1 1.XXX	-	GAR 1.D 115 Apron Management Service	Yes
GAR1 1.XXX	-	GAR 1.D 120 Fuelling Service	Not applicable
GAR1 1.XXX	-	GAR 1.D 125 Maintenance of Movement area surfaces	Yes
GAR1 1.XXX	-	GAR 1.D 130 Maintenance of Aerodrome Visual Aids	Yes
GAR1 1.XXX	-	GAR 1.D 135 Maintenance and operation of ground based facilities and equipment radiating electromagnetic waves for air navigation	Not applicable
GAR1 1.XXX	-	GAR 1.D 140 Aerodrome Emergency Planning and Exercises	Yes
GAR1 1.XXX	-	GAR 1.D 145 Rescue and Fire Fighting service	Yes

## SUBPART E - Aerodrome Data

<b>SUBPART E - Aerodrome Data</b>	<b>Initial content</b>	<b>Subpart E WP 114 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	Aerodrome certification		
GAR1 1.XXX	Safety Management System		
GAR1 1.E001	Aerodrome data - general	GAR 1.E001	Yes
GAR1 1.XXX	Aeronautical charts		
GAR1 1.E005	Aerodrome reference point	GAR 1.E005	Yes
GAR1 1.E010	Aerodrome and runway elevations	GAR 1.E010	Yes
GAR1 1.E015	Aerodrome reference temperature	GAR 1.E015	Yes
GAR1 1.E020	Aerodrome dimensions and related information	GAR 1.E020	Yes
GAR1 1.E025	Strength of pavements	GAR 1.E025	Yes
GAR1 1.E030	Pre-flight altimeter check location	GAR 1.E030	Yes
GAR1 1.E035	Declared distances	GAR 1.E035	Yes
GAR1 1.E040	Condition of the movement area and related facilities	GAR 1.E040	Yes
GAR1 1.XXX	Disabled aircraft removal		
GAR1 1.D035	Rescue and fire fighting	GAR 1.D035	Yes
GAR1 1.E045	Visual approach slope indicator systems	GAR 1 E.045	Yes
GAR1 1.E050	Coordination between aeronautical information services and aerodrome authorities	GAR 1 E.050	Yes

**SUBPART F – PHYSICAL CHARACTERISTICS**

<b>SUBPART F – Physical characteristics</b>	<b>Initial content</b>	<b>Subpart F Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX		GAR1 F.001- Infrastructure reference code	
GAR1 1.XXX	Runway	GAR1 F.002 – Runway	yes
GAR1 1.XXX	Runway shoulders	GAR1 F.005 - Runway shoulders	No existing annex 14 standard
GAR1 1.XXX		GAR1 F.010 - Runway turn pad	No
GAR1 1.XXX	Runway strips	GAR1 F.015 - Runway strips	yes
GAR1 1.XXX	Runway end safety areas	GAR1 F.020 - Runway end safety areas	yes
GAR1 1.XXX	Clearways	GAR1 F.025 - Clearways	No existing annex 14 standard
GAR1 1.XXX	Stopways	GAR1 F.030 - Stopways	yes
GAR1 1.XXX	Radio altimeter operating area	GAR1 F.035 - radio altimeter operating area	No existing annex 14 standard
GAR1 1.XXX	Taxiways	GAR1 F.040 - Taxiways	yes
GAR1 1.XXX	Taxiway shoulders	GAR1 F.045 - Taxiway shoulders	No existing annex 14 standard
GAR1 1.XXX	Taxiway strips	GAR1 F.050 - Taxiway strips	yes
GAR1 1.XXX	Holding bays, runway-holding positions, intermediate holding positions and road-holding positions	GAR1 F.055 - Holding bays, runway-holding positions, intermediate holding positions and road-holding positions	Yes
GAR1 1.XXX	Isolated aircraft parking position	GAR1 F.065 - Isolated aircraft parking position	yes
GAR1 1.XXX	De/anti-icing facilities		No existing annex 14 standard
GAR1 1.XXX		GAR1 F.070 - Aprons	No existing annex 14 standard

**SUBPART G – OBSTACLE RESTRICTION AND REMOVAL**

<b>SUBPART G – Obstacle restriction and removal</b>	<b>Initial content</b>	<b>Subpart G Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR 1.G001		GAR 1.G001 General	Yes
GAR 1.G006		GAR 1.G006 Obstacles in the RWY vicinity	Yes (Chapter 3)
GAR 1.G007		GAR1.G007 Obstacle limitations in protection surfaces	Yes (Chapter 5)
GAR 1.G010		GAR 1.G010 Obstacle limitation requirements for non-instrument runways	Yes (Chapter 4)
GAR 1.G015		GAR 1.G015 Obstacle limitation requirements for non-precision approach runways	Yes (Chapter 4)
GAR 1.G020		GAR 1.G020 Obstacle limitation requirements for precision approach runways	Yes (Chapter 4)
GAR 1.G025		GAR 1.G025 Obstacle limitation requirements for runways meant for take-off	Yes (Chapter 4)
GAR 1.G030		GAR 1.G030 Limitations of other objects	Yes (Chapter 4)
GAR 1.G040		GAR 1.G040 Inner horizontal surface	Yes (Chapter 4)
GAR 1.G045		GAR 1.G045 Conical surface	Yes (Chapter 4)
GAR 1.G050		GAR 1.G050 Outer horizontal surface	Yes (Chapter 4)
GAR 1.G055		GAR 1.G055 Approach surface	Yes (Chapter 4)
GAR 1.G060		GAR 1.060 Inner approach surface	Yes (Chapter 4)
GAR 1.G065		GAR 1.G065 Transitional surface	Yes (Chapter 4)
GAR 1.G070		GAR 1.G070 Inner transitional surface	Yes (Chapter 4)
GAR 1.G075		GAR 1.G075 Balked landing surface	Yes (Chapter 4)
GAR 1.G080		GAR 1.G080 Take-off climb surface	Yes (Chapter 4)
GAR 1.G085		GAR 1.G085 Protection surface	Yes (Chapter 5)

## SUBPART H – OBSTACLE MARKING AND LIGHTING

<b>SUBPART H – Obstacle marking and lighting</b>	<b>Initial content</b>	<b>Subpart H Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR 1.H001		GAR 1.H001 Objects to be marked and/or lighted	Yes
GAR 1.H005		GAR 1.H005 Obstacles that extend above a take-off climb surface, an approach or transitional surface	Yes (Chapter 6)
GAR 1.H010		GAR 1.H010 Obstacles that extend above a horizontal and conical surface	Yes (Chapter 6)
GAR 1.H015		GAR 1.H015 Obstacles that extend above a protection surface	Yes (Chapter 6)
GAR 1.H020		GAR 1.H020 Other objects on or near aerodrome	Yes (Chapter 6)
GAR 1.H025		GAR 1.H025 Marking of obstacles	Yes (Chapter 6)
GAR 1.H030		GAR 1.H030 Use of colours	Yes (Chapter 6)
GAR 1.H035		GAR 1.H035 Use of markers	Yes (Chapter 6)
GAR 1.H040		GAR 1.H040 Use of flags	Yes (Chapter 6)
GAR 1.H045		GAR 1.H045 Lighting of obstacles	Yes (Chapter 6)
GAR 1.H050		GAR 1.H050 Use of obstacle lights	Yes (Chapter 6)
GAR 1.H055		GAR 1.H055 Location of obstacle lights	Yes (Chapter 6)
GAR 1.H060		GAR 1.H060 Characteristics of low-intensity obstacle lights	Yes (Chapter 6)
GAR 1.H065		GAR 1.H065 Characteristics of medium- intensity obstacle lights	Yes (Chapter 6)
GAR 1.H070		GAR 1.H070 Characteristics of high- intensity obstacle lights	Yes (Chapter 6)

**SUBPART J – VISUAL AIDS**

<b>SUBPART J – VISUAL AIDS</b>	<b>Initial content</b>	<b>Subpart J – WP 111 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	Indicators and signalling devices	GAR 1.J001	Yes
GAR1 1.XXX	Markings	GAR 1.J020	Yes
GAR1 1.XXX	Lights	GAR 1.J110	Yes except the following. Note 1: Annex 14 Clauses 5.3.1.1 to 5.3.1.3 relating to lights which may endanger aircrafts, laser emissions, lights which may cause confusion moved to Subpart D, GAR 1.D080. Note 2: Annex 14 Section 5.3.2 Emergency Lighting deleted from GAR.
GAR1 1.XXX	Signs	GAR 1.J275	Yes
GAR1 1.XXX	Markers	GAR 1.J310	Yes
GAR1 1.XXX	Closed runways and taxiways, or parts thereof	GAR 1.J350	Yes
GAR1 1.XXX	Non-load bearing surfaces	GAR 1.J355	Yes
GAR1 1.XXX	Pre-threshold area	GAR 1.J360	Yes
GAR1 1.XXX	Unserviceable areas	GAR 1.J365	Yes

**SUBPART K – Equipment and Installations**

<b>SUBPART K – Equipment and Installations</b>	<b>Initial content</b>	<b>Subpart K – WP 111 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	Secondary power supply	GAR 1.K001	Yes
GAR1 1.XXX	Electrical systems	GAR 1.K010	Yes
GAR1 1.XXX	Monitoring	GAR 1.K015	Yes
GAR1 1.XXX	Fencing	GAR 1.K020	Yes
GAR1 1.XXX	Security lighting		No
GAR1 1.XXX	Airport design		Not applicable
GAR1 1.XXX	Siting and construction of equipment and installations on operational areas	GAR 1.K025	Yes
GAR1 1.XXX	Aerodrome vehicle operations		Not applicable
GAR1 1.XXX	Surface movement guidance and control systems		Not applicable

**SUBPART P – Aerodrome Vicinity Protection**

This subpart P is not more included in the GAR draft.

The initial content of Subpart P is included in Subpart D, as stated by **GAR1 D.080**.

**SUBPART Q – OBSTACLE MARKING AND LIGHTING (OUTSIDE THE OLS)**

**Subpart Q – WP 116**

<b>SUBPART Q – Obstacle Marking And Lighting</b>	<b>Initial content</b>	<b>Subpart Q – WP 116 Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
		GAR 1.Q001 Objective	No
GAR1 1.XXX		GAR 1.Q005 Objects to be marked and/or lighted	Yes
GAR1 1.XXX	Marking of objects	GAR 1.Q010 Marking of obstacles outside the limitation surfaces of 100m high or higher	Yes
		GAR 1.Q015 Marking of obstacles outside the limitation surfaces higher than 45 m but lower than 100 m	Yes
		GAR 1.Q020 Marking of electrical masts and wires higher than 45 m outside the OLS	Yes
		GAR 1.Q025 Marking of off-shore installations	No
		GAR 1.Q030 Use of colours outside the obstacle limitation surfaces	Yes
		GAR 1.Q035 Use of markers outside the OLS	Yes
GAR1 1.XXX	Lighting of objects	GAR 1.Q040 Lighting of obstacles outside the obstacle limitation surfaces	Yes
		GAR 1.Q045 Use of obstacle lights outside the OLS	Yes
		GAR 1.Q050 Location of obstacle lights outside the OLS	Yes
		GAR 1.Q055 Characteristics of obstacle lights outside the OLS	Yes

**SUBPART Z – FOREWORD, DEFINITIONS, APPLICATION, COMMON REFERENCE SYSTEMS AND AERODROME REFERENCE CODE**

Subpart Z was additionally created to include foreword, definitions, application, common reference systems and aerodrome reference code, issues that were initially deemed to be included in the previous subparts

<b>SUBPART Z – Foreword, Definitions, Application, Common Reference Systems And Aerodrome Reference Code</b>	<b>Subpart Z Present content</b>	<b>Annex 14 Standard accepted in GAR</b>
GAR1 1.XXX	Foreword	Not applicable
GAR1 1.XXX	Definitions	Yes, and some definitions added
GAR1 1.XXX	Applicability	No, Annex 14 refers to aerodromes opened for public use, and GAR to aerodromes opened to commercial air transport operations
GAR1 1.XXX	Common reference systems	Yes
GAR1 1.XXX	Aerodrome reference code	Yes, but it was extended to each of the infrastructure' element as "Infrastructure reference Code"