

## **1. INTRODUCTION**

- 1.1 The UK Civil Aviation Authority (CAA) is conducting a consultation on the proposal to introduce a new National Airside Driving Permit scheme to replace the current local driving permit schemes. This action is in response to the identification in the CAA Safety Plan of ground handling incidents continuing to rise worldwide and affecting the safety of personnel working in the airside environment.
- 1.2 The CAA first produced a formal Safety Plan in 2004. Ramp Safety was indicated as a concern in the plan. In 2006, the Safety Planning process was substantially changed when it employed both a 'bottom up' model, using the considerable expertise in the organisation to identify potential risks, and a new 'top down' process, starting with the major risks as evidenced in the data, using Mandatory Occurrence Reports and other data sources. In December 2006, a CAA group (with participation from BAA plc and the AOA), known as the fishbone team, was established to analyse the root causes of incidents that occur on the apron. This group subsequently recommended a series of actions aimed at reducing the risk to aircraft and their occupants, which were introduced during the aircraft's time on the apron area. During 2007, the CAA Safety Risk Team (SRT) considered these recommendations and proposed a new CAA/Industry working group to formulate an action plan to address each issue. This new group called the Ground Handling Operations Safety Team (GHOST) met for the first time in December 2007.
- 1.3 The aim of GHOST was to work with the UK aviation industry to develop strategies to mitigate the safety risks from ground handling and ground support activities in the UK and elsewhere. The team members comprise representatives from divisions within CAA Safety Regulation Group (SRG) and also invited representatives from UK industry to include Ground Handling Organisations (GHO), Airlines and Airport Operators. This membership will be reviewed at each T of R review.
- 1.4 The CAP 642 Working Group was established in 2008, reporting to GHOST, tasked with reviewing 642 to ensure it remains current in today's airside environment. It soon became apparent that a large amount of the content had been superseded by newly published CAP documents describing the subject in greater detail. An existing Chapter on Airside Driving and vehicle operation was considered by industry to be vague and they would like the CAA to develop a new National airside driving permit strategy that would replace all existing permit processes. To this end, a new sub-working group was established, reporting to the CAP 642 working group, to develop the new national driving permit scheme.

## **2. Review of Driver Training**

- 2.1 The working Group met throughout 2008 and 2009 and identified that changes to the current airside driver training requirements are necessary for the following reasons:
- 2.3 A major contributor to hazards on the apron has been identified as Airside Driving and it is this subject that the working group has been concentrating on over the last 7 months.

- 2.4 The CAA publishes guidance on Airside Vehicle Operation and Driving in CAP 642 Chapter 4. The guidance is comprehensive, however, it lacks clarity on the rules governing the training, issuing of driving permits and medical standards required to obtain an Airside Driving Permit.
- 2.5 The Airport Operators Association (AOA), UK Driver Permit Scheme, is the current process by which the UK endeavours to meet the standardisation of Airside Driver training and requirements.
- 2.6 The issue of Airside Driving Permits (ADP) is dependant on the applicant achieving the required standard in two areas, Medical Standards and Competency Standards. Medical Standards are self-explanatory, however, the standards are far above those needed to drive the equivalent vehicle on the roads. Competency Standards are currently catered for in the multi-choice test questionnaire presented at the end of the training course.
- 2.7 In the past ten years, records show that few accidents have been attributed to a medical condition; most are caused by lack of appreciation/understanding of the environment they are working in. This falls mainly into the competency side of the equation.
- 2.8 Recent work in America between The International Air Transport Association (IATA) and Air Transport Association of America (ATA) has focused on Human Factors and Computer Based Training (CBT), in the form of simulator training, in an effort to try and reduce the 27,000 ramp incidents and accidents that occur annually worldwide which results in 243,000 people injured and costs running at £6.4bn.
- 2.9 The results of work related to Human Factors have indicated that standardisation may be the key that helps driver awareness and provides the clues to help avoid driver errors. Therefore, standard markings and practices, including Radio Transmissions (RT), are being promoted as mitigation. In the manoeuvring area, we believe this should be addressed by compliance with Annex 14, CAP 168 and CAP 413.
- 2.10 The CAA is aware that the AOA has developed, through the UK Driver Permit Scheme Working Group, the latest driving permit Standards and Recommended Practices (SARP), which includes an example multi-choice test paper and repeats the existing Medical Standards. However, the CAA is also aware that other aerodromes are developing their own standards, which they feel are more appropriate to the scale encountered at their locations.
- 2.11 The CAP642WG started to investigate, and get an industry view, on whether a new scheme, with CAA backing, would receive wider support. The feedback the CAP642 working group received fully supported the groups' involvement in developing a new scheme and as a result of work we have done, are now at a point where the structure of a new national scheme is emerging.
- 2.12 The three big differences between the existing AOA scheme and the proposed new scheme are medical requirements, aerodrome area covered by the national permit scheme and maintenance of competency.
- 2.13 The CAP642WG has worked with BAA, AOA, MAG, TBI, Birmingham Airport and the CAA Medical Dept. in defining the new scheme.

- 2.14 The new scheme is designed to reduce the amount of vehicle related accidents on the apron by increasing the competency requirements and reversing the growing trend in vehicle related runway incursions by restricting the access to the runway to only those essential drivers needing access during operational hours.
- 2.15 Recent developments have introduced the concept of aligning the Permit Scheme with the GoSkills initiative. GoSkills is the Sector Skills Council (SSC) for passenger Transport. Licensed by the Government, their mission is to work with employers UK-wide to improve the skills that make a difference to the performance of the passenger transport sector. The training will be based on the National Occupational Standards for Aviation Operations on the Ground. Following a successful training course, the applicant will receive a nationally recognised qualification.
- 2.16 The incentive in choosing this route is to emphasise the point that anyone holding the new Airside Driving Permit will be regarded as a professional driver with the competencies and attitude the status endorses.
- 2.17 ASD is seeking AOA participation in this work, which will be published, and be applicable to all licensed aerodromes that operate a Driver Permit Scheme.

### 3 OPTIONS

- 3.1 So as to achieve the overall objective to reduce the growing trend in ramp incidents and runway incursions by vehicles several options have been identified:
- ❑ **Option 1:** Do Nothing. This is not considered an option as the trend in ramp incidents and runway incursions by vehicles showed a consistent growth year on year.
  - ❑ **Option 2:** Review and re-publish the existing AOA National airside driving permit scheme. The scheme had been in existence for a number of years, however, it was a voluntary scheme that had seen a decline in the support from both its training material suppliers and aerodromes. It was felt that any further work on revamping the scheme would be met with little support.
  - ❑ **Option 3:** Develop a new National airside driving permit scheme. This is the preferred option by the working group with the understanding that the CAA would support it and the training standards framework has been developed.
  - ❑ **Option 4:** Merge elements of the proposed new National airside driving permit scheme as described in Option 3 with a review of the existing requirements as described in Option 2. This option would provide some of the benefits of Option 3 but fail to materialise the full benefits associated with the better training environment.
- 3.2 These four options are described in greater detail in Section 4. The final proposal to industry will depend on the feedback received from consultation with aerodrome, ground handling associations and airlines.

## 4. OPTIONS DEVELOPMENT

### 4.1 Option 1: Do Nothing

- 4.1.1 Under this option the working group considered the merits of no further development of the existing airside driving permit schemes. Relying on the individual aerodromes to address the continuing rise in ramp incidents and runway incursions by vehicles. This option was discounted based on the need, and request from industry, for the CAA to be involved in supporting the airside driving permit scheme.

Benefits and Advantages;	Costs and Disadvantages:
<ul style="list-style-type: none"><li>• Stakeholders would not have to meet any new costs for scheme implementation.</li><li>• All permit holders understand the existing system.</li></ul>	<ul style="list-style-type: none"><li>• No increase in costs.</li><li>• No change in level of ramp incidents and Runway incursions by vehicles.</li><li>• As levels of traffic grow, there is a danger that incidents will increase proportionally.</li></ul>

Table 1: Summary of the Benefits and Costs of Doing Nothing

### 4.2 Option 2: Review the existing AOA scheme

- 4.2.1 This option was about to be reviewed by a working group working directly for the AOA. However, two elements led to the disbanding of that working group. One being the request for the CAA to develop a new scheme and, two, the difficulty the AOA working group were having obtaining the previous training material to enable them to edit and re-publish.
- 4.2.2 The current working group considered the consequence of reviewing the existing scheme and re-publishing the training material. The current AOA National scheme allows the successful candidate to drive on the airside service roads and aprons only, at the aerodrome of issue and, where an agreement is in place, at other participating aerodromes following proof of familiarisation. The permit does not allow the holder to drive on the Manoeuvring Area.
- 4.2.3 Any review of the existing AOA scheme would need to ensure it applies to all airside areas not just the airside service roads and aprons. Extending the scheme to encompass the Manoeuvring Areas would lead to increasing the difficulties in managing the process due to the voluntary nature of the AOA scheme.
- 4.2.4 The training plan delivered by the existing training providers would prove difficult to include strategies on candidate assessment and continued competence. A new training structure would have to be developed to accommodate these requirements.

4.2.5 The current training material fails to meet standards employed by other regulators and/or passenger transportation industry.

4.2.6 Therefore, pursuit of this option would only part fulfils the expectation of industry in achieving a National airside driving permit scheme.

Benefits and Advantages;	Costs and Disadvantages:
<ul style="list-style-type: none"> <li>• Shorter time to publish the new material.</li> <li>• Existing processes remain to manage the permit application and issue.</li> </ul>	<ul style="list-style-type: none"> <li>• No increase in costs.</li> <li>• National scheme remains voluntary amongst existing AOA member aerodromes.</li> <li>• As levels of traffic grow, there is a danger that incidents will increase proportionally.</li> <li>• Will be difficult to include the latest training strategy within the scheme.</li> <li>• No incentive to provide a better training environment.</li> <li>• No links to current benefits in the training environment for other passenger transport industries.</li> <li>• No incentive to maintain driving competence.</li> </ul>

**Table 2: Summary of the Benefits and Costs of Reviewing the AOA Scheme**

### **4.3 Option 3: Develop a new National Airside Driving Permit Scheme**

4.3.1 This option gave the working group greater challenges in deciding how to develop a new scheme that has a positive impact on the safety targets, meets the deliverable timescales, but does not constitute increased financial or regulation burden on the industry.

4.3.2 The working group looked at what material was available to use as a basis for the new scheme. Both the AOA and Eurocontrol have published documents on Airside Driving requirements including the subjects that should be included in training Material.

4.3.3 The new scheme has included a review of the existing applications standards to ensure they meet today's requirements. The working group have adjusted some of the existing requirements and introduced new ones, which they felt, better reflected today's demographic make up of Airside Driving candidates. The changes are:

- align the medical standards with those of the DVLA.
- Introduce a new permit class for runway access.
- Introduce a new language proficiency standard.

- Introduce a separate Radiotelephony training programme.

- 4.3.4 The new scheme has introduced the concept of maintaining competence, particularly for the manoeuvring area driver.
- 4.3.5 This being a new airside driver permit scheme has allowed the working group to review driver training and it is in this field that the working group is proposing the significant changes.
- 4.3.6 The CAA is keen to ensure that future driver training is closely linked to the Sector Skills Council for Passenger Transport. This is led by GoSkills. GoSkills has made significant changes to the way professional drivers, in the rail, coach and freight industry are taught and maintain competency.
- 4.3.7 The working group has developed a structured training framework for all three levels of driver permit, both for the initial application and revalidation. They have also developed a framework for Radiotelephony training. These are included at Appendix 1
- 4.3.8 The working group has also developed a management framework, outlining who would be responsible for the different elements of oversight, management and delivery of the scheme. This is included in Appendix 2
- 4.3.9 The significant changes introduced in the new scheme include the introduction of a CAA Driving Licence, awarded to the candidate who has met the application criteria, successfully completed an approved course of training by attendance at an approved training centre/provider and, in the case of an Manoeuvring area driver, can demonstrate the level of competence necessary to safety drive in the environment.
- 4.3.10 The working group is proposing significant changes to the way training providers are managed and deliver training. Greater emphasis is placed on the training environment and materials including the extensive use of new technology to both help the candidate and provide the trainer with information on the ability of the candidates which in turn enables the trainer to target training to ensure a better assimilation of the subject, and pass rate.
- 4.3.11 Future development of Option 3 could include the Airside Environment in the maintenance of competency requirements for coach and lorry drivers to strengthen the link to GoSkills and the Driving Standards Agency (DSA) Certificate of Professional Competence (CPC).

Benefits and Advantages;	Costs and Disadvantages:
<ul style="list-style-type: none"> <li>• Clear application and training process.</li> <li>• Limits the amount of drivers able to access the runway during operational hours.</li> <li>• Provides a better training environment.</li> <li>• Promotes the 'professional' driver status that leads to an increase in standards and behaviours.</li> <li>• National status of the licence is non-voluntary, therefore adds value to the licence holder.</li> <li>• Cost of driver training can be added to the capital costs incurred by Ground Handling companies.</li> <li>• Existing coach and lorry drivers will recognise the training environment and airside driving could be added to their Driver Qualification Card competency requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential increase in costs.</li> <li>• Significant change in application and training process may lead to initial 'teething problems'.</li> <li>• The increase in competence levels for both application and delivery of training may lead to shortage of ground handling staff with airside driving licences.</li> </ul>

**Table 3: Summary of the Benefits and Costs of developing a New Scheme**

#### **4.4 Option 4: Merged Options 2 & 3**

- 4.4.1 This option provides a solution that delivers the requirements with regard to the new National scheme but fails to deliver a better training environment to support the delivery of the new training framework.
- 4.4.2 The working group does believe this option will deliver the targets on reducing runway incursions by vehicles, however, it does not provide a suitable environment to affect a change in driver behaviours.
- 4.4.3 This option may be more agreeable with aerodromes as responsibility on approval and management of the training providers remains with the Aerodrome as opposed to transferring to a third party.
- 4.4.4 This option does introduce problems identifying who will develop the new syllabus and how existing training providers will deliver the new syllabus using he interactive media required under the new standards.
- 4.4.5 The working group will need to develop a proposal for the issue and recording of the National CAA driving licence and general oversight of the scheme.

Benefits and Advantages;	Costs and Disadvantages:
<ul style="list-style-type: none"> <li>• Can be introduced sooner than Option 3.</li> <li>• Allows the syllabus to be updated and presented using the latest electronic training aids</li> <li>• Allows existing training providers the opportunity to continue training.</li> </ul>	<ul style="list-style-type: none"> <li>• Cost increased for Training Provider in acquiring interactive media.</li> <li>• Potential cost in setting up National database</li> <li>• No potential for National training providers identified. This may lead to local requirements continuing to take precedents.</li> </ul>

**Table 4: Summary of the Benefits and Costs of merging Option 2 & 3**

## **5. Consultation**

- 5.1 External consultation will be undertaken normally by means of promulgation on the dedicated CAA Consultations page on the website. New consultations are notified to interested parties via the CAA's subscription service. Comments are received using a dedicated Submission Form for consultation by email. Following the consultation period, a comments response document will be produced and circulated via the website.
- 5.2 The National Airside Driving Permit Scheme Working Group, led by the CAA, has membership representatives from AOA member airports including the BAA, Manchester, Liverpool, Birmingham and Luton Airports along with an AOA elected member representing the smaller airports. Each member has actively participated in developing the new scheme and has drawn on existing processes and procedures to help deliver industry best practice within driver training and management.
- 5.3 Development of the scheme has led the CAA and the working group to consult with industry on a number of issues. The DSA has been extensively involved in shaping the management of the scheme and maintenance of competence requirements, a number of potential training providers have demonstrated how they can help deliver the training packages and the use of new technology in the training environment.

## **6. Summary and Recommendations**

- 6.1 Under the direction of GHOST, the working group has reviewed the existing airside driving permit scheme with reference to the safety concerns expressed in the CAA Safety Plan document. The working group believes that it could develop a driving licence scheme that would reduce the level of runway incursion by vehicles. The value of the solution developed has already been recognised by BAA, which has adopted it for use at Heathrow.
- 6.2 To ensure the new scheme is truly national and introduces training linked to the GoSkills initiative the working group will continue to develop Option 3, however, the working group feel Option 3 will not be achieved within the timescale

expected of Aerodromes for the introduction of the new scheme. Therefore, this presents us with a number of choices.

- 6.3 The simplest choice would be to delay the introduction of the scheme, however, we believe this will not be a popular choice from the Aerodromes perspective. Therefore, the working group believe this leaves us with two choices.
- 6.4 Choice 1, we publish the CAP and Training Framework and monitor the impact on the Safety Plan targets,
- 6.5 Issues with Choice 1 relate to how we introduce the recommendations to the small aerodromes and how we approve the training providers and training material to ensure we have a consistence approach to training. The latter being a pre-requisite to the issue of a CAA Airside Driving Permit.
- 6.6 Choice 2, we publish the CAP and Training Framework under Phase 1 and indicate that further work will be undertaken under Phase 2 to link the training environment with that of GoSkills and the DSA.
- 6.7 Issues with Choice 2 relate to how and when we later introduce a different training environment and requirements, although CAP 700 should have already prepared aerodromes to the new competency requirements, of which airside driving will form one of the new National Occupational Standards. The impact of this change, however, may force existing training providers to question whether they wish to continue. This will require a careful oversight to ensure continuity of training. An issue regarding the introduction of the scheme to small aerodromes remains.
- 6.8 The working group recommends Choice 2 to deliver a National Airside Driving Permit Scheme that not only meets the targets of reducing runway incursions and ramp incidents but also links the training environment with the aspiration of the GoSkills Aviation Industry Board and the competency requirements with those of CAP 700.

**Appendix 1**



**Regulation of Airside Driving Standards (ROADS)**

**Frameworks for Airside Driving Structured Training Programmes**

**Information Paper**

**ADT-1**

**Frameworks for Training Providers who wish to provide Structured Training Programmes (STP's) for Airside Driving personnel**

---

**[www.caa.co.uk](http://www.caa.co.uk)**

Issue 1, September 2009

## **Preface**

The following document is made available on the Civil Aviation Authority (CAA) website to promote and develop best practice within the airside driving community. It is offered to Training providers to assist them in developing syllabus for Structured Training Programmes or Structured Assessment Programmes.

This paper has been prepared in cooperation with the Airport Operators Association (AOA) and the Regulation of Airside Driving Standards (ROADS) Working Group.

© Civil Aviation Authority 2009

All rights reserved. Copies of this publication may be reproduced for personal use, or for use within a company or organisation, but may not otherwise be reproduced for publication.

To use or reference CAA publications for any other purpose, for example within training material for students, please contact the CAA at the address below for formal agreement.

Issue 1 February 2009

Enquiries regarding the content of this publication should be addressed to:  
Aerodrome Standards Department, Safety Regulation Group, Civil Aviation Authority, Aviation House, Gatwick Airport South, West Sussex, RH6 0YR.

## Contents

	Preface	2
	Contents	3
	Introduction	4
	<b>Structure Learning Programmes</b>	
<b>Appendix A</b>	Apron and Airside Roads Driver - Initial (Category A)	5
<b>Appendix B</b>	Apron and Airside Roads Driver – Revalidation (Category A)	7
<b>Appendix C</b>	Manoeuvring Area Driver – Initial (Category M) (excluding Runway access)	9
<b>Appendix D</b>	Manoeuvring Area Driver – Revalidation (Category M) (excluding Runway access)	11
<b>Appendix E</b>	Manoeuvring Area Driver – Initial (Category R) (including Runway access)	12
<b>Appendix F</b>	Manoeuvring Area Driver – Revalidation (Category R) (including Runway access)	14
<b>Appendix G</b>	Radiotelephony Phraseology Certificate - Initial (Category M & R)	17

## **1 Introduction**

The following Appendices contain frameworks for Training Providers who wish to construct STP's for airside driving personnel. The frameworks should be read alongside the referenced occupational standards from CAP \*\*\*.

STP's should be seen as part of a development programme for staff. They will provide staff with the acquisition or refreshing of skills in a training environment.

These skills will need to be applied and adapted to the risks of the particular airport. All staff should have a development plan to refresh, enhance or attain additional skills to enable them to be fully competent in airside driving.

## **Appendix A**

### **Structured Training Programme Framework**

#### **Apron and Airside Roads Driver - Initial (Category A)**

##### **Aim**

The aim of the STP is to train new drivers in both the theory and practical skills necessary to drive safely on the aerodrome airside roads and aprons.

Candidates should attend this course before they operate a vehicle in the airside environment.

##### **Attendance criteria**

Candidates should be in possession of a valid Medical certificate and are able to demonstrate language proficiency to the minimum of Operational Level 4 as described in the CAP \*\*\*

##### **Preparation**

The following shall be a pre course requirement:

- Knowledge of CAP \*\*\*.

##### **Theory content**

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment

##### **Delivery Method**

The course shall cover the Theory content and practical exercises in the classroom using interactive media. Aerodrome familiarisation and application of techniques will take place, under supervision, in the aerodrome environment.

##### **Assessments**

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

##### **Length of course**

It is expected the course will be in the region of 4 hours.

##### **Validity**

Permit will be valid for up to 5 years. The permit holder will need to pass a retest before permit can be revalidated.

## **Appendix B**

### **Structured Training Programme Framework**

#### **Apron and Airside Roads Driver – Revalidation (Category A)**

##### **Aim**

The aim of the STP is to allow drivers to refresh and demonstrate the skills necessary to retain the driving permit.

##### **Attendance criteria**

Candidates shall attend this course to revalidate their competence in airside driving.

##### **Preparation**

The following shall be a pre course requirement:

- Knowledge of CAP \*\*\*

##### **Theory content**

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment

##### **Delivery Method**

The course shall refresh the Theory content and practical exercises in the classroom using interactive media. Aerodrome familiarisation and application of techniques will take place, under supervision, in the aerodrome environment.

##### **Assessments**

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

##### **Length of course**

It is expected the course will be in the region of 4 hours (excluding meal breaks).

##### **Validity**

Permit will be valid for up to 5 years. The permit holder will need to pass a retest before permit can be revalidated..

## **Appendix C**

### **Structured Training Programme Framework**

#### **Manoeuvring Area Driver – Initial (Category M) (excluding Runway access)**

##### **Aim**

The aim of the STP is to train existing Category A drivers in both the technical and practical skills necessary to drive safely on the aerodrome Manoeuvring Area. (Excluding the Runway.). It requires drivers to comply with the rules and standards of conduct in areas designed for aircraft movement, not ground vehicle operations.

Candidates shall attend this STP before they operate a vehicle on the Manoeuvring Area excluding the runway.

##### **Attendance criteria**

Candidates should be in possession of a valid RTF certificate and are able to demonstrate language proficiency to the minimum of Operational Level 4 as described in the CAP \*\*\*

##### **Preparation**

The following shall be a pre course requirement:

- Knowledge of CAP 413 Supplement 2: A Reference Guide to UK Phraseology for Aerodrome Drivers.

##### **Theory content**

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment
- Dynamic risk assessment
- Radio procedures
- Practical exercises

##### **Delivery Method**

The STP shall be heavily biased on the use of a driver simulator for Radiotelephony Phraseology training and hazard identification, under practical mentored instruction. Clear, concise and relevant notes shall be provided to underpin the subject areas with the emphasis on development of skills.

##### **Assessments**

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

**Length of course**

It is expected the course will be in the region of 8 hours.

**Validity**

Permit will be valid for up to 5 years. To continue exercising the privileges of the permit the permit holder will need to either;-

1. demonstrate they have received continued competence training throughout the duration of the permit or
2. undertake the refresher course and pass the retest.

## **Appendix D**

### **Structured Training Programme Framework**

#### **Manoeuvring Area Driver – Revalidation (Category M) (excluding Runway access)**

##### **Aim**

The aim of the STP is to allow drivers to refresh and demonstrate the skills necessary to retain the driving permit.

##### **Attendance criteria**

Candidates need only attend this course to revalidate their competence in Manoeuvring Area driving (excluding the runway) should they fail to provide evidence of maintenance of competency.

##### **Preparation**

The following shall be a pre course requirement:

- Knowledge of CAP 413 Supplement 2: A Reference Guide to UK Phraseology for Aerodrome Drivers.

##### **Theory content**

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment
- Dynamic risk assessment
- Radio procedures
- Practical exercises

##### **Delivery Method**

The STP shall be heavily biased on the use of a driver simulator for Radiotelephony Phraseology training and hazard identification, under practical mentored instruction.

##### **Assessments**

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

##### **Length of course**

It is expected the course will be in the region of 4 hours.

**Validity**

Permit will be valid for up to 5 years. To continue exercising the privileges of the permit the permit holder will need to either;-

1. demonstrate they have received continued competence training throughout the duration of the permit or
2. undertake the refresher course and pass the retest.

## **Appendix E**

### **Structured Training Programme Framework**

#### **Manoeuvring Area Driver – Initial (Category R) (including Runway access)**

##### **Aim**

The aim of the STP is to train existing Category A drivers in both the technical and practical skills necessary to drive safely on the aerodrome Manoeuvring Area. (Including the Runway.)

##### **Attendance criteria**

Candidates shall attend this STP before they operate a vehicle on the Manoeuvring Area including the runway. The applicant shall provide evidence that their job requires access to the runway during operational hours.

##### **Preparation**

The following shall be a pre course requirement:

Knowledge of CAP 413 Supplement 2: A Reference Guide to UK Phraseology for Aerodrome Drivers.

##### **Theory content**

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment
- Dynamic risk assessment
- Radio procedures
- Practical exercises

##### **Delivery Method**

The STP shall be heavily biased on the use of a driver simulator for Radiotelephony Phraseology training and hazard identification, under practical mentored instruction. Clear, concise and relevant notes shall be provided to underpin the subject areas with the emphasis on development of skills.

##### **Assessments**

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

##### **Length of course**

It is expected the course will be in the region of 4 hours.

**Validity**

Permit will be valid for 1 year.

## Appendix F

### Structured Training Programme Framework

#### Manoeuvring Area Driver – Revalidation (Category R) (including Runway access)

##### Aim

The aim of the STP is to allow drivers to refresh and demonstrate the skills necessary to retain the driving permit.

##### Attendance criteria

Candidates need only attend this course to revalidate their competence in Manoeuvring Area driving (including the runway) should they fail to provide evidence of maintenance of competency. The applicant shall provide evidence that their job continues to require access to the runway during operational hours.

##### Preparation

The following shall be a pre course requirement:

- Knowledge of CAP 413 Supplement 2: A Reference Guide to UK Phraseology for Aerodrome Drivers.

##### Theory content

- CAP \*\*\*
- CAP 168, Chapter 2, Appendix 2B
- CAP 168, Chapter 7,
- CAP 393, The Air Navigation Order
- Airport Operational Instructions
- Airport Safety Instructions
- Environmental Instructions
- Airport Conditions of Use
- Health and Safety at Work Act 1974
- Airport Bye-Laws
- Hazard identification and risk assessment
- Dynamic risk assessment
- Radio procedures
- Practical exercises

##### Delivery Method

The STP shall be heavily biased on the use of a driver simulator for Radiotelephony Phraseology training and hazard identification, under practical mentored instruction. Clear, concise and relevant notes shall be provided to underpin the subject areas with the emphasis on development of skills.

##### Assessments

Assessments against the requirements of CAP \*\*\* shall be carried out and recorded on a database.

##### Length of course

It is expected the course will be in the region of 4 hours.

**Validity**

Permit will be valid for 1 year. To continue exercising the privileges of the permit the permit holder will need to either;-

1. demonstrate they have received continued competence training throughout the duration of the permit or
2. undertake the refresher course and pass the retest.

## **Appendix G**

### **Structured Training Programme Framework**

#### **Radiotelephony Phraseology Certificate - Initial (Category M & R)**

##### **Aim**

The aim of the STP is to train drivers in the correct use of radiotelephony (RTF) phraseology and techniques. It is designed to ensure the driver, operating on the manoeuvring area, is competent in the use of the radio and can easily and comfortably communicate with Air Traffic Controller when needed.

Candidates shall attend this course before they operate a vehicle on the Manoeuvring Area and/or Runway.

##### **Attendance criteria**

Candidates are able to demonstrate language proficiency to Operational Level 4 as described in the CAP \*\*\*

##### **Preparation**

The following shall be a pre course requirement:

- Knowledge of Supplement to CAP 413 (A reference guide to UK phraseology for Aerodrome Drivers).

##### **Theory content**

- CAP 413
- CAP 393, The Air Navigation Order
- Airport Operational Instructions

##### **Delivery Method**

The course shall cover the theory content and practical exercises in the classroom using interactive media and/or Radiotelephony equipment..

##### **Assessments**

Assessments against the requirements of CAP 413 shall be carried out and recorded on a database.

##### **Length of course**

It is expected the course will be in the region of 16 hours.

##### **Validity**

Permit will be valid for an unlimited period. The permit holder will need to demonstrate competency requirements during the revalidation of their Airside Driving Permit.

## Framework of Airside Driver Initial Course

The following table sets out the suggested subjects and the percentages of theory or practical delivery during the course. It also suggests the subjects that would need to be assessed locally before someone drives a vehicle airside.

Subject	% Theory	% Practical	Pre driving	In Developm ent
<b>Initial Course Content</b>				
LEGAL REQUIREMENTS (General to all Airports) <ul style="list-style-type: none"> <li>• The Air Navigation Order</li> <li>• CAP 168</li> <li>• CAP ***</li> <li>• CAP 642</li> </ul>	80	20		
LEGAL REQUIREMENTS (Local to Issuing Airports) <ul style="list-style-type: none"> <li>• Bye-laws</li> <li>• Conditions of Use</li> <li>• Airport Operational Instructions</li> <li>• Airport Safety Instructions</li> </ul>	70	30		
AIRPORT LAYOUT <ul style="list-style-type: none"> <li>• The general geography of the local aerodrome</li> <li>• Surface markings and signs (for both vehicles and aircraft)</li> <li>• Speed Limits</li> <li>• Aviation terminology used such as taxiway, apron, roads, crossings etc.</li> <li>• Parking areas and Restrictions, Hot Spots and local requirements</li> </ul>				
PERSONAL RESPONSIBILITIES <ul style="list-style-type: none"> <li>• Fitness to drive (medical/health standards) national or airport agreed requirements</li> <li>• Issue and use of personal protective equipment such as high visibility clothing and hearing protection,</li> <li>• General driving standards,</li> <li>• No smoking requirements airside,</li> <li>• Responsibilities with respect to FOD and fuel/oil spillages.</li> <li>• Responsibility for individuals to ensure vehicle is suitable for the task and used correctly</li> </ul>				
VEHICLE STANDARDS <ul style="list-style-type: none"> <li>• Condition and maintenance standards agreed at aerodrome and/or national level</li> <li>• The requirements to display obstruction lights and company insignia</li> <li>• Requirements and content of daily vehicle inspections</li> <li>• Agreed standards of aerodrome and company vehicle fault reporting and rectification</li> <li>• Local requirements for the issue and display of Airside Vehicle Permits (AVP's).</li> <li>• Reversing</li> </ul>				
RULES FOR OPERATING AT NIGHT AND IN LOW VISIBILITY <ul style="list-style-type: none"> <li>• General rules</li> <li>• Local rules</li> </ul>				

Subject	% Theory	% Practical	Pre driving	In Development
<b>Initial Course Content</b>				
<b>HAZARDS</b> <ul style="list-style-type: none"> <li>• Speed limits, prohibited areas and no parking regulations.</li> <li>• The danger zones around aircraft,</li> <li>• Engine suction/ingestion and blast, propellers and helicopters,</li> <li>• Aircraft refuelling,</li> <li>• FOD and spillages,</li> <li>• Vehicle reversing,</li> <li>• Staff and passengers walking across aprons,</li> <li>• Airbridges and other services such as fixed electrical ground power,</li> <li>• The general aircraft turnaround process,</li> <li>• Aircraft emergency stop and fuel cut off procedures,</li> <li>• Hazardous cargo,</li> <li>• Local vehicle towing requirements,</li> <li>• Requirements for driving at night</li> <li>• Specialist Vehicles</li> </ul>				
<b>THE ROLE OF:</b> <ul style="list-style-type: none"> <li>• The Civil Aviation Authority (CAA)</li> <li>• The Police</li> <li>• The Health and Safety Executive (HSE)</li> <li>• The Local Authority</li> <li>• The Department for Transport (DfT)</li> <li>• The Airport Authority</li> </ul>				
<b>SECURITY PROCEDURES</b> <ul style="list-style-type: none"> <li>• Personal Requirements (ID Cards) &amp; Exemptions where applicable</li> <li>• Vehicle Security Permits</li> <li>• Security Restricted Zones</li> <li>• Security Control Zones</li> </ul>				
<b>EMERGENCY PROCEDURES</b> <ul style="list-style-type: none"> <li>• Action in the Event of an Vehicle Accident</li> <li>• Specific action to be taken in the Event of a vehicle striking an aircraft</li> <li>• Action in the Event of a Fire</li> <li>• Action in the Event of an Aircraft Accident or Incident</li> <li>• Reporting Procedures</li> <li>• CAA Mandatory Occurrence Reporting (MOR) Scheme</li> </ul>				
<b>PENALTIES FOR NON-COMPLIANCE</b> <ul style="list-style-type: none"> <li>• General Penalties</li> <li>• Local Penalties</li> </ul>				

## Framework for Manoeuvring Area Driver Initial Course

The following table sets out the suggested additional subjects and the percentages of theory or practical delivery during the course. It is based on the assumption that the driver has undertaken a course of training for the A Permit.

Subject	% Theory	% Practical	Pre driving	In Developm ent
<b>Initial Course Content</b>				
LEGAL REQUIREMENTS (Local to Issuing Airports) <ul style="list-style-type: none"> <li>• ATC Rules, rights of way of aircraft.</li> <li>• Definitions of movement area, manoeuvring area, aprons, stands/</li> <li>• Methods used to disseminate information regarding Works in Progress</li> </ul>				
AIR TRAFFIC CONTROL <ul style="list-style-type: none"> <li>• Function of aerodrome control and its area of responsibility</li> <li>• Function of ground movement control and its area of responsibility</li> <li>• Normal and Emergency procedures used by ATC relating to aircraft</li> <li>• ATC frequencies used and normal hand over/transfer points for vehicles</li> <li>• ATC call signs, vehicle call signs, phonetic alphabet, standard phraseology</li> <li>• Demarcation of responsibilities between ATC and Apron Control if applicable</li> </ul>				
PERSONAL RESPONSIBILITIES <ul style="list-style-type: none"> <li>• Fitness to drive (medical/health standards) national or airport agreed requirements</li> <li>• Issue and use of personal protective equipment such as high visibility clothing and hearing protection,</li> <li>• No smoking requirements airside,</li> <li>• Responsibilities with respect to FOD and fuel/oil spillages.</li> <li>• Responsibility with respect to escorting other vehicles on the manoeuvring area</li> </ul>				
VEHICLE STANDARDS <ul style="list-style-type: none"> <li>• Condition and maintenance standards agreed at aerodrome and/or national level</li> <li>• The requirements to display obstruction lights and company insignia</li> <li>• Requirements and content of daily vehicle inspections</li> <li>• Agreed standards of aerodrome and company vehicle fault reporting and rectification</li> <li>• Local requirements for the issue and display of Airside Vehicle Permits (AVP's).</li> <li>• Reversing</li> </ul>				
RULES FOR OPERATING AT NIGHT AND IN LOW VISIBILITY <ul style="list-style-type: none"> <li>• General rules</li> <li>• Local rules</li> </ul>				

Subject	% Theory	% Practical	Pre driving	In Development
<b>Initial Course Content</b>				
<b>AERODROME TOPOGRAPHY</b> <ul style="list-style-type: none"> <li>• Emphasis on standard ICAO signage, marking and lights used on the manoeuvring area</li> <li>• Special emphasis on those signs, markings and lights used to protect the runway</li> <li>• Description of equipment used in non-visual aids to navigation i.e. ILS</li> <li>• Description of protection zones related to non-visual aids to navigation</li> <li>• Description of ILS protected areas and their relation to runway holding points</li> <li>• Description of runway instrument/visual strip, cleared and graded area</li> </ul>				
<b>HAZARDS OF MANOEUVRING AREA DRIVING</b> <ul style="list-style-type: none"> <li>• Engine suction/ingestion and blast, vortex, propellers and helicopter operations</li> <li>• Procedures for vehicle and or radio becoming unserviceable whilst on manoeuvring area</li> <li>• Rights of way for aircraft, towed aircraft and RFFS vehicles in emergency</li> </ul>				
<b>EMERGENCY PROCEDURES</b> <ul style="list-style-type: none"> <li>• Actions to be taken in event of vehicle accident/incident</li> <li>• Actions to be taken in event of aircraft accident/incident</li> <li>• Actions to be taken if FOD or other debris is found on runways and/or taxiways</li> <li>• Procedures to be used by drivers if lost or unsure of position</li> <li>• Local emergency telephone numbers</li> </ul>				
<b>AIRCRAFT FAMILIERISATION</b> <ul style="list-style-type: none"> <li>• Knowledge of aircraft types and ability to identify all types normally operating at the aerodrome</li> <li>• Knowledge of Airline call signs</li> <li>• Knowledge of aircraft terminology relating to engines, fuselage, control surfaces, undercarriage, lights, vents etc.</li> </ul>				
<b>PRACTICAL TRAINING (SIMULATOR with RADIOTELEPHONY)</b> <ul style="list-style-type: none"> <li>• All runways (including access and exit routes), holding areas, taxiways and aprons</li> <li>• All signs, surface markings and lights associated with runways, holding positions, CAT I/II/III operations</li> <li>• All signs, surface markings and lights associated with taxiways</li> <li>• Hazards of operating around aircraft landing, taking off or taxiing</li> <li>• Identification of hazardous situations and assessment of mitigation techniques</li> <li>• Any locally used naming convention for particular areas or routes</li> </ul>				

## Framework for Radiotelephony (RTF) Initial Course

The following table sets out the suggested additional subjects and the percentages of theory or practical delivery during the course. All drivers operating on the manoeuvring area should be expected to display a high degree of competence in their use of RTF phraseology and aviation English.

Subject	% Theory	% Practical	Pre driving	In Developm ent
<b>Initial Course Content</b>				
<b>HIERARCHY OF MESSAGE PRIORITY</b> <ul style="list-style-type: none"> <li>• Message priorities, understanding of distress, alerting, control and information messages</li> </ul>	Yes 90	Yes 10		
<b>PHONETIC ALPHABET</b> <ul style="list-style-type: none"> <li>• Correct pronunciation of letters, words and numbers</li> <li>• Emphasis on drivers using standard phraseology similar to pilots</li> </ul>				
<b>AIRCRAFT, ATC AND VEHICLE CALL SIGNS</b> <ul style="list-style-type: none"> <li>• Understanding the terminology and acronyms used by ATC and Pilots</li> <li>• Knowledge of the airline call signs used at the aerodrome</li> </ul>				
<b>READ BACK PROCEDURES</b> <ul style="list-style-type: none"> <li>• Vehicle drivers should use standard read back in the same manner as pilots for instructions such as 'enter/cross the runway', and if conditional clearances are used</li> </ul>				
<b>READABILITY SCALE</b> <ul style="list-style-type: none"> <li>• Understanding the use of the readability scale from 1 – 5</li> </ul>				
<b>VEHICLE BREAKDOWN PROCEDURE</b> <ul style="list-style-type: none"> <li>• Local procedure for vehicle breakdown on runways or taxiways</li> <li>• Procedure for indicating to ATC of vehicle failure</li> </ul>				
<b>RADIO FAILURE PROCEDURE</b> <ul style="list-style-type: none"> <li>• Understanding of the local procedure if radio failure occurs whilst on the runway or taxiway</li> <li>• Understanding of light signals that may be used by ATC to pass instructions to vehicles</li> </ul>				
<b>TRANSMITTING TECHNIQUES</b> <ul style="list-style-type: none"> <li>• Understanding the reasons for listening out prior to transmitting</li> <li>• Use of aviation English</li> <li>• Words and sounds to be avoided</li> <li>• Correct positioning of microphones to avoid distortion</li> <li>• Avoidance of 'clipped' transmissions</li> <li>• Awareness of regional accents and variations of speech</li> <li>• Speed of delivery of RTF phraseology</li> </ul>				

Subject	% Theory	% Practical	Pre driving	In Development
<b>Initial Course Content</b>				
PORTABLE RADIOS <ul style="list-style-type: none"> <li>• Correct use of Radios</li> <li>• Effective range and battery life</li> <li>• Screening/shielding effects on the aerodrome</li> <li>• Use of correct call signs, either relating to vehicle or an individual</li> </ul>				
LEGAL REQUIREMENTS (Local to Issuing Airports) <ul style="list-style-type: none"> <li>• Local instructions regarding use of portable radios and hand held microphones whilst driving a vehicle</li> <li>• Local instructions on the use of mobile telephones (cell phone) whilst operating airside</li> </ul>				

<b>PRIMARY ROLE</b>	<b>REQUIREMENTS</b>
<b>Oversight:</b>  CAA	<ul style="list-style-type: none"><li>❑ Development of Standards and Recommended Procedures</li><li>❑ Lead the development of long term strategies</li><li>❑ Represent the UK in European initiatives</li><li>❑ Support the training management</li><li>❑ Maintenance of the Standards</li></ul>
<b>Management of Scheme:</b>  (CAAI / DSA) with Aerodrome Management	<ul style="list-style-type: none"><li>❑ Authorisation of Training Providers</li><li>❑ Authorisation of Trainers</li><li>❑ Register of Training Providers</li><li>❑ Support the Training provider</li></ul>
<b>Training Provider:</b>	<ul style="list-style-type: none"><li>❑ Development of training material</li><li>❑ Maintenance of training material</li><li>❑ Issuing of Permits</li><li>❑ Register of drivers</li><li>❑ Maintenance of records</li></ul>
<b>Trainers:</b>	<ul style="list-style-type: none"><li>❑ Delivery of training material</li><li>❑ Assessment of competence</li></ul>

### Positives

- ❑ Oversight by one organisation
- ❑ Clear line of management and responsibilities
- ❑ Potential for income generation
- ❑ Clear control paths
- ❑ Clear audit process

### Negatives

- ❑ Change Management could be complicated
- ❑ Timescale for change