



Operational Safety Instruction

Vehicles and Equipment Airside - Operation

18th November 2020

ASDRVE_OSI_005

V2.0

It is the responsibility of all employers to ensure that relevant OSIs are brought to the attention of their staff. However, individuals remain responsible for their own actions and those who are in any doubt should consult their Supervisor or Manager.

1. Introduction

- 1.1 This instruction is in place to ensure that risks to personnel, passengers, vehicles, equipment and aircraft are reduced as far as is reasonably practicable in line with the objectives as defined in Heathrow's Safety Management System.
- 1.2 The guidance material for the content of this instruction can be found in **CAP 642 Airside Safety Management, CAP 790 Airside Driving & Vehicle Operation and EASA ADR.OPS.B.025 Operation of Vehicles**. This instruction should also be read in conjunction with **ASDRVE_OSI_008 – Vehicles and Equipment Airside Requirements**.
- 1.3 All organisations operating vehicles 'Airside' at Heathrow must ensure that all vehicles are being operated in accordance with the relevant legal guidance such as Health & Safety at Work Act, Provision & Use of Working Equipment Regulations (PUWER), Work Place Transport, Working at Height & Lifting Operations and Lifting Equipment Regulations (LOLER)
- 1.4 All vehicles and their drivers which will be operating in the airside environment must be in possession of a valid Airside Vehicle Apron Permit (VAP) and Airside Driving Permit (ADP) or their temporary counterparts respectively.
- 1.5 Following a ruling by the Court of Appeal, the Road Traffic Act 1988 may, under certain circumstances, apply airside. Wherever a member of the public legitimately enters an airside area that area in turn becomes a 'Public Place' and the Road Traffic Act applies while the member of the public remains.



- 1.6** It is the responsibility of all airside operating companies to ensure their staff are aware of the content of this instruction.
- 1.7** Red bars have been added to the side of the document to draw the readers attention to where changes have been made.
- 1.8** Version 2.0 introduces the following amendments/additions including, but not limited to:
- Update to the airfield driving rules regarding dipped headlights
 - Removal of certain exemptions from not wearing seatbelt
 - Update to the maximum number of dollies permissible under tow
 - Update to uncontrolled crossing rules
 - Change in priority at uncontrolled crossings - Drivers using an uncontrolled crossing must give way at all times to aircraft/vehicles using the taxiway
 - Additional stipulation - Vehicles are now required to leave 2 aircraft lengths prior to passing behind active aircraft
 - Introduction of additional safety measures for marshalling of aircraft
 - Highlights existing security restrictions for transiting from other airside areas
 - Banning the use of in-car infotainment systems whilst driving on the manoeuvring area
 - Suspension of free ranging through the De-icing pads (JEDI/VADER) when activated
 - Inclusion of free ranging restrictions for the Helicopter Aiming Point – Link 43 and Link 44 (previously found in ASDRVE_OSI_005_App B)
 - Update to permissible vehicle height limit on the Eastern Tug Road
- 1.9** ASDRVE_OSI_005 Supplement 3 is hereby cancelled.
- 1.10** ASDRVE_OSI_005_App B is hereby cancelled.
- 1.11** ASDRVE_OSI_005 V1.0 (OSI/11/09) is hereby cancelled.



2. Definitions

Abbreviation	Description
ADP	Airside Driving Permit
AOT	Airside Occurrence Ticket
'M'ADP	Manoeuvring Airside Driving Permit
'R' ADP	Runway Airside Driving Permit
AfDM	Airfield Duty Manager
APOC	Airport Operations Control Centre
ASD	Airside Safety Department
ATC	Air Traffic Control
BHSO	Baggage Hall Safety Officer
DfT	Department for Transport
DI	Daily Inspection
EASA	European Aviation Safety Agency
HAL	Heathrow Airport Holdings Limited
NATS	National Air Traffic Services
ULD	Unit Load Device
VAP	Vehicle Apron Pass

- 2.1** For the purpose of these instructions an "Airport Official" means a person authorised in writing by the Airport Company to perform specified functions under the byelaws.
- 2.2** For the purpose of these instructions a 'vehicle' shall be considered to be a mechanically propelled vehicle. Mechanically propelled vehicle is defined as a 'conveyance' used for the transporting of people or goods which is powered by an internal combustion engine running on petrol, diesel, gas, oil or steam or powered through electrical power either wholly or partly.'



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3. Airside Driving Rules

- 3.1** Aircraft have right of way including those under tow. Vehicles must give way to aircraft at all times.
- 3.2** All vehicles and equipment operating airside must be fully serviceable for its respective duties as per ASDRVE_OSI_008 Vehicles and Equipment Airside – Requirements.
- 3.3** The driver of a vehicle must be appropriately trained and hold the appropriate ADP; or be under the supervision of an escort driver as per ASDRVE_OSI_009 Escorting of Vehicles Airside.
- 3.4** All vehicle doors must be closed when the vehicle is in motion.
- 3.5** All vehicles and trailers that have side flaps or shutters must have them secured when the vehicle is in motion.
- 3.6** All vehicle occupants must wear a seat belt where one is fitted.
- 3.6.1** It is accepted that not all specialist vehicles will have seat belts. Individual companies are responsible for ensuring that the level of safety provided for the driver and any passengers is to an acceptable standard.
- 3.6.2** Where a seatbelt is not provided companies must ensure they have suitable risk assessments in place.
- 3.7** The only permitted exemptions to not wearing a seat belt are the following;
- 3.7.1** A person holding a valid medical exemption certificate.
- 3.7.2** Whilst manoeuvring a vehicle within the confines of an aircraft stand (where the 5mph speed limit must be obeyed). Operating companies must satisfy themselves (by means of a risk assessment if necessary) that risks to their staff operating on stand are appropriately mitigated if seatbelts are not worn whilst manoeuvring
- 3.8** No seat, no ride.
- 3.9** The driver of the vehicle must obey all speed limits, road markings and road signs.



- 3.10 Drivers must not use a hand-held mobile phone whilst the vehicle is in motion.
- 3.11 When an aircraft is present, drivers must only reverse on an aircraft stand if they have a 360-degree vision or are guided by a banksman.
- 3.12 Drivers must ensure that they have dipped headlights on at all time or daytime running lights during daylight hours.
- 3.13 Vehicles exceeding 3m must have a height indicator displayed inside the cabin.
- 3.14 Drivers must not leave vehicles unattended with the engine running.
- 3.15 It is a requirement to obey the instructions/restrictions conveyed by any sign or marking, and to follow the instructions of an Airport Official (member of Airside Operations, BHSO, Police).
- 3.16 Should a driver break down on any area other than an vehicle/equipment parking area the driver must ensure that both their company and Airfield Operations are made aware on extension 656024 or 020 8745 6024.
 - 3.16.1 Should a colleague be attempting to repair the vehicle colleagues must revert to Appendix A.
- 3.17 Heathrow has the right remove obstructions and unserviceable vehicles/equipment airside. See Appendix B.

4. Specialist Vehicles and Equipment Rules

- 4.1 Vehicles and trailers that can vary in height, such as mobile steps and hi-lift catering trucks, must always be fully lowered before being moved.
- 4.2 Vehicles and trailers are not to be overloaded.
- 4.3 Drivers must ensure that their vehicle/tug is capable of moving and stopping both itself and any attached trailer, aircraft, vehicle or object safely.



- 4.4 Drivers are to ensure that loads are secure before moving off so that nothing can fall from a vehicle or trailer in transit.

5. Baggage Tug and Dolly Operations

- 5.1 Drivers of baggage / dolly trains are to ensure that ULD flaps are secure and Wessex trailer webbing straps are correctly attached before moving off.
- 5.2 When transporting ULDs anywhere around the airport, the ULD and all movable parts of the device must be secured or locked into place. All doors must be securely closed and fastened, and all straps and netting secured to the unit, so as not to strike or catch a person, equipment or piece of infrastructure.
- 5.3 The table below shows the maximum number of dollies that can be towed using a baggage trailer. For guidance on the length of dollies please refer to [ASDRVE OSI 008 – Vehicles and Equipment Airside - Requirements](#)

Terminal Area	Terminal 1,2,3	Terminal 4	Terminal 5
Single Trailer	4 Trailers	3 Trailers	3 Trailers
Double Trailer	2 Trailers	2 Trailers	2 Trailers

6. Airside Service Road

6.1 General Rules of Operation

- 6.1.1 Where practicable, signs and paint markings used on the airside service roads follow the DfT system used on the public roads. This includes speed limit signs/markings, double yellow lines, red routes lines, and overhead obstruction signs at bridges and under crofts. Temporary signs/markings may be installed as a result of development work or to control traffic around an incident site. Such signs carry the same authority as permanent signs. It is a requirement to obey the instructions/restrictions conveyed by any sign or marking, and to follow the instructions of an Airport Official.



6.2 Speed Limits

6.2.1 The general speed limit on the airside roads is 20 mph. There are some variations which are sign posted. Additional speed restrictions may be imposed subject to operational requirements.

Location	Speed Limit
Runways and Taxiways	40 MPH
Cargo Tunnel	20 MPH
Uncontrolled Crossings	20 MPH
Southern Airside Road	30MPH
Northern Airside Road	30MPH
Eastern Apron Airside Road	20MPH
Airside Road Tunnel	30 MPH
Airside Roads	20 MPH
Aircraft Stand and Clearways	5 MPH
Baggage Halls	5 MPH
Eastern Tug Road	30 MPH

6.3 Uncontrolled Crossings

6.3.1 Uncontrolled crossings are roadways that run across sections of taxiway. These crossings are marked by black and white checker board markings. Vehicles must remain within the markings and keep to the left of approaching vehicles. Additional signage is provided at uncontrolled crossings.

6.3.2 Drivers using an uncontrolled crossing must give way at all times to aircraft/vehicles using the taxiway, and aircraft pushing back from adjacent stands. However, taxiway drivers are still required to give way to vehicles that are already on the crossing.

6.3.3 Drivers using the uncontrolled crossing must bring their vehicles to a full stop and perform a careful check of their surroundings prior to using the crossing.



- 6.3.4** Once drivers have entered the crossing they should proceed across as expeditiously as possible but not break the 20mph speed limit, maintaining a good lookout at all times.
- 6.3.5** Drivers should only use uncontrolled crossings as a last resort and must use the airside road network. This reduces the risks involved in using uncontrolled crossings and helps reduce congestion on the taxiways.
- 6.3.6** The use of Grass Area 20 uncontrolled crossing is strictly prohibited with the exemption of the following vehicles:
- Electric Baggage Tugs
 - Passenger steps
 - Loading Elevators
 - Televators
 - Belt Loaders
 - Fuel Browsers
 - Mobile Elevated Working Platform
 - UK Power Networks (accessing the substation in GA20)
 - Aircraft Engineering towing wheel change equipment
 - Snow Fleet
 - Airside Operations
 - Emergency Services
 - Recovery vehicles towing GSE or vehicles
- 6.3.7** In the event of the ART being closed drivers will be directed to use Grass Area 20 at which point 6.3.6 will be temporarily suspended during this closure.
- 6.3.8** Vehicles are not permitted to cross taxiways except at specified crossing points.
- 6.3.9** Pedestrians are not permitted to use uncontrolled crossings under any circumstances.
- 6.3.10** All vehicles intending to use an uncontrolled crossing must have a fully serviceable obstruction light which must be switched on.



- 6.3.11** Vehicles must cross behind aircraft at a distance greater than two aircraft lengths. If an aircraft is under tow, then one aircraft length distance must have passed before crossing.
- 6.3.12** Vehicles must not tailgate other vehicles when using an uncontrolled crossing.
- 6.3.13** In times of adverse weather such as low visibility, or snow obstructing paint markings then a dynamic risk assessment will need to be undertaken by the driver as to whether it is safe to cross. If the building on the other side of the taxiway cannot be seen, the crossing must not be used refer ASWeather_OSI_052 Low Visibility Operations. In low visibility conditions, some uncontrolled crossings will be supervised and controlled by ASD with Leader vehicle escort -In these circumstances drivers must wait to be escorted across the crossing. Other crossings may be closed by the Airside Safety Department (ASD) and must not be used.

6.4 Parking

- 6.4.1** Within the Airside area there are a mixture of allocated and visitor parking bays, these bays will be marked with the respective company name or visitor designation.
- 6.4.2** Head of stand parking is restricted to Ground Support Equipment directly associated with the aircraft turnaround procedure.
- 6.4.3** Vehicle and equipment bays at the Head of Stand are typically depicted by a red box inset by a white border.
- 6.4.4** Vehicles must not be parked on head of stand areas unless actively involved in the turnaround of the aircraft on that stand.
- 6.4.5** Action will be taken against the driver/owners of incorrectly parked vehicles which obstruct operations or adversely affect safety.
- 6.4.6** The apron parking areas are not a maintenance facility for vehicles and equipment. Companies must make arrangements for the maintenance of vehicles & equipment in appropriate facilities. Please refer to Appendix A for guidance on vehicle repairs.



- 6.4.7** Each Ground Handling company has a duty to park within its designated areas. If other companies' vehicles are incorrectly parked, contact should be made with the company concerned via the telephone number on the vehicle. If this fails or there is an urgent safety need, contact ASD on extension 656024 or 020 8745 6024.
- 6.4.8** No contractor vehicles are to be parked on head of stand areas unless the area has been designated a work site.
- 6.4.9** Contractors vehicles involved in infrastructure maintenance should not normally be parked airside. It is the responsibility of those arranging such works to ensure appropriate parking arrangements are made prior to work commencing.
- 6.4.10** Works and construction vehicles should not park in airside bays during Heathrow's operational hours.
- 6.4.11** If a company requires to park their vehicles airside approval must be sought through the Airside Operations Compliance Team: Duty number 07514 938343 airside@heathrow.com.
- 6.4.12** The Airside Operations Standards & Assurance Team reserves the right to review existing airside parking arrangements in conjunction with Team Heathrow Partners.
- 6.4.13** Parking is prohibited in the following areas;
- 6.4.13.1** On empty aircraft stands.
 - 6.4.13.2** Within aircraft tug attachment area.
 - 6.4.13.3** Within any hatched area.
 - 6.4.13.4** When stated by sign or notice.
 - 6.4.13.5** Within inter-stand clearways.
 - 6.4.13.6** Within the airbridge extension/'starburst' area.

6.5 Overhead Obstructions

- 6.5.1** All obstructions below 4.5m are signposted.
- 6.5.2** Overhead obstructions, link bridges and under-croft areas are marked with DfT standard height signs. It is the responsibility of drivers to ensure that the



vehicle/trailer combination they are driving does not exceed the indicated height.

6.6 Marshalling/Leader Vehicles

- 6.6.1 When positioning an aircraft on a stand, the Marshaller may need to walk back into the airside road to maintain visual contact with the pilot. Where this is an operational requirement, the Marshaller will stop road traffic, this may be done by parking the Leader vehicle across the airside road to form a 'roadblock'.
- 6.6.2 It is strictly prohibited to drive or move equipment between a Marshaller and an aircraft when the Marshaller is positioning an aircraft on stand.
- 6.6.3 Enforcement action will be taken against drivers who drive around the vehicle or roadblock as this has the potential to endanger the safety of the Marshaller and the aircraft.

6.7 Use of Road Plates

- 6.7.1 Road plates may be necessary to bridge excavations, damaged areas of the roadways, aprons and manoeuvring areas. The road plate is intended to provide a safe temporary surface that can be traversed. It should be noted that some vehicles and equipment used within the airside areas are not equipped with suspension, therefore the driver must take additional care and adopt an appropriate speed when traversing road plates to avoid potential personal injury to the occupants or damage to vehicles/equipment and their loads.
- 6.7.2 Drivers should report any faults with road plates to ASD on 0208 745 6024.

6.8 Accessing the Restricted Zone from Other Airside Areas

- 6.8.1 Drivers wishing to gain access from other airside areas into the restricted zone must report for security screening if accessing the rest of the airfield from a controlled zone.



6.8.2 Failure to report at security for screening constitutes a breach of security and could lead to the removal of the drivers airside pass.

6.8.3 Maps detailing the dedicated routes and security boundaries are available upon request from airside_safety@heathrow.com

7. Tunnel Operations

7.1 Heathrow Airport operates two tunnels Airside:

7.1.1 Cargo Tunnel – Link between Terminal 4 & Cargo to the Central Terminal Area

7.1.2 Airside Road Tunnel – Link between Terminal 5 to the Central Terminal Area

7.2 For instructions on operating vehicles in the airside tunnels refer to ASDRVE_OSI_080 Driving In Airside Tunnels.

8. Aprons – Aircraft Stand & Clearways

8.1 General Rules of Operation

8.1.1 Vehicles are not permitted to drive across or onto an aircraft stand during aircraft movements. The driver is responsible for being aware of aircraft positioning on stand under power (i.e. a live arrival) or when under tow. The driver is also responsible for being aware of aircraft in the process of pushing back.

8.1.2 Vehicles operating on an aircraft stand or inter-stand clearway must have an amber obstruction light illuminated.

8.1.3 Vehicles and equipment operating on the apron must never pass behind an aircraft if its anti-collision lights are switched on.

8.1.4 Vehicles must not be driven under an airbridge. Vehicles must not be parked under an airbridge unless there are approved parking bays.



- 8.1.5 Drivers must not drive across empty aircraft stands unless the nature of their vehicle makes it impossible to use airside roads (e.g. loading elevators). Stands are not a short cut for the airside road system.
- 8.1.6 Vehicles manoeuvring on aircraft stands must be particularly cautious near aircraft refuelling vehicles to avoid colliding with the hose connecting the vehicle to the fuel hydrant. The hose may run for up to 15 metres from the vehicle.
- 8.1.7 As a safety consideration, refuelling bowzers (tanker, not hydrant dispensing vehicles) must always have a clear escape route to use in case of emergency. Drivers engaged in aircraft turnarounds must ensure that they park with care when arriving on stand so as not to obstruct any escape route for refuelling bowser vehicles.

8.2 Inter-stand Clearways

- 8.2.1 The inter-stand clearway is an area between stands which can be used to enter the stand during the turnaround and gives access to the aircraft for emergency services. Drivers are reminded that parking in the clearway is strictly prohibited and could result in penalty points being awarded.
- 8.2.2 If the aircraft on either side of the clearway are parked on the associated centrelines, vehicle operators can be assured that there is no risk of coming into contact with the wing of the aircraft, as long as the vehicle remains within the confines of the Interstand clearway.

9. Manoeuvring Area – Taxiways

9.1 General Rules of Operation

- 9.1.1 Only drivers with a valid 'M' ADP or 'R' ADP are allowed to operate on the taxiways in good visibility without a positive radio call to Air Traffic Control. Such vehicles are said to be 'free ranging'. In poor visibility most vehicles must vacate the taxiway under rules laid down for Low Visibility Procedures, refer to ASWeather_OSI_052 Low Visibility Operations. Drivers must therefore check the status of the airfield with their Company or with ASD on (0208 745 6024) before entering the taxiway system.



- 9.1.2** Drivers operating on the manoeuvring area must know their callsign but the callsign must also be known by Heathrow and ATC.
- 9.1.3** Drivers operating on the manoeuvring area must keep a listening watch to the correct ATC frequency.
- 9.1.4** The use of in-car infotainment systems and listening to music is prohibited whilst on the manoeuvring area, non-essential domestic radio calls and other activities which would reduce the drivers situational awareness are not permitted.
- 9.1.5** Aircraft, including those under tow have, right of way over vehicles.
- 9.1.6** All vehicles operating on the taxiways must have an obstruction light fitted and be switched on at all times.
- 9.1.7** A current Airfield Map must be carried in the vehicle.
- 9.1.8** Vehicles are to enter the taxiways from an inter-stand clearway. Vehicles must not cross an aircraft stand to obtain access to the taxiways.
- 9.1.9** Emergency Services vehicles responding to a declared emergency may exceed the speed limit. Vehicles fitted with blue lights and two-tone sirens are to use them to warn other vehicles of their approach.
- 9.1.10** All manoeuvring area drivers should endeavour to maintain a minimum distance of two aircraft lengths behind aircraft which have engines running. Where an operational requirement exists to lessen this distance, all care should be taken to minimise the exposure to the jet blast experienced.
- 9.1.11** Emergency Services vehicles using blue lights and sirens have priority over other vehicles. Nevertheless, aircraft always have right of way.
- 9.1.12** Vehicles on the taxiways have the right of way over vehicles waiting to use the crossing. However, drivers are still required to give way to vehicles already on the crossing.



- 9.1.13 Vehicles must not be driven on the grass areas unless it is part of the driver's duties.
- 9.1.14 If the driver of a vehicle becomes aware of a fault on that vehicle (including radio issues), the driver must vacate the manoeuvring area by the shortest safe route.
- 9.1.15 If a vehicle breaks down and becomes immobile, ATC must be contacted by radio giving the vehicle's location. ATC will advise ASD.

9.2 Aircraft Tugs on the taxiway system

- 9.2.1 Tug drivers should use the airside road network when safe and feasible to do so. Where there is an operational requirement aircraft tugs and suitably trained drivers (holders of an 'M' ADP) have approval to free range 'solo' (without an aircraft in tow) on designated areas of the runway, see Appendix C.
- 9.2.2 If taxiway works prevent use of any part of the intended route, tug drivers are required to revert to obtaining permission to operate on the manoeuvring area from the appropriate ground movement frequency. This procedure does not preclude tug crews from requesting an alternate routing from ATC.

9.3 Free Ranging through JEDI and VADER

- 9.3.1 Appendix D shows the locations of JEDI and VADER De-Icing pads as well as the extent of each pad.
- 9.3.2 Free ranging through JEDI and VADER is not permitted when the pad is occupied by an aircraft.
- 9.3.3 Free-ranging through a JEDI or VADER de-icing pad is NOT permitted when the pad is occupied by aircraft de-icing rigs. This includes times when the de-icing rigs are standing-by in the marked 'Safety Zones'.
- 9.3.4 The planned use of JEDI or VADER will be promulgated through the Heathrow Operational Conference Call (HOCC) and AOP (previously A-



CDM). There will be no specific communications regarding the suspension of free-ranging.

9.3.5 M-license holders must familiarise themselves with the locations of JEDI and VADER de-icing pads as-well as the extent of each pad.

9.3.6 Before entering a JEDI or VADER de-icing pad under free-ranging conditions, M-license holders must ensure that the pad is not occupied by either an aircraft or de-icing rig. If the pad is occupied, they must NOT free-range through the pad and instead they must find an alternative route.

9.4 Helicopter Aiming Point – Link 43 and Link 44.

9.4.1 Drivers are to be aware that there is a Helicopter Aiming Point located on Link 43. The aiming point is indicated by a white equilateral triangle, which can be lit at night, and is surrounded by red and white warning signs on a blue background.

9.4.2 Helicopters will be directed to this Aiming Point and will hover or ground taxi to their setting down or parking area.

9.4.3 Vehicles are prohibited from free ranging through the area of the intersection of Link 43 and Link 44 (see Appendix E).

9.4.4 Signs are installed at the entrances to Link 43 & Link 44 to advise drivers that they are to contact ATC on the appropriate frequency if they wish to transit through the area. The standard frequency to request transit is 121.705.

9.5 Eastern Tug Road

9.5.1 A Tug Road runs from Link 28, through Grass Areas 14a & 15b to Link 41. The road passes behind the Instrument Landing System localiser for runway 09R.

9.5.2 The road is restricted to use by the following vehicles;

9.5.2.1 Aircraft tugs

9.5.2.2 HAL vehicles



- 9.5.2.3 HM Revenue & Customs vehicles
- 9.5.2.4 Metropolitan Police vehicles
- 9.5.2.5 NATS vehicles
- 9.5.2.6 Other vehicles specifically authorised in writing by HAL

9.5.3 To avoid infringing the safeguarded surfaces, no vehicle over 4.0m in height is allowed to use the road without prior permission from Airfield Operations on 0208 745 6459.

10. Manoeuvring Area – Runways

10.1 General Rules of Operation

- 10.1.1 Vehicles can only be driven onto the runways with the approval of Air Traffic Control (ATC).
- 10.1.2 Access to a 'live' runway is restricted to those drivers holding a valid 'R' ADP.
- 10.1.3 Entry to a live runway without clearance from ATC is a 'runway incursion'. This could seriously endanger aircraft and the occupants of the vehicle. Heathrow takes any runway incursion seriously and a Safety Investigation will always follow any reported runway incursion.
- 10.1.4 Any drivers who do not possess an 'R' ADP must be escorted by Airfield Operations.
- 10.1.5 Vehicles that are driven on the runways must be equipped with radio(s) capable of transmitting and receiving all relevant Heathrow ATC frequencies and channels as set out in ASDRVE_OSI_010 – ATC Frequencies Control of Vehicles on the Manoeuvring Area.
- 10.1.6 A current Airfield Map must be carried in the vehicle.
- 10.1.7 Access to runways at night for works are governed by separate procedures, as set out in ASWorks_OSI_004_Appendix_B – Control of Works Airside – Procedures for Working Airside.



11. Low Visibility

- 11.1 Free ranging of vehicles on the manoeuvring area will be suspended during low visibility conditions. For further information refer to ASWeather_OSI_052 – Low Visibility Operations.
- 11.2 During Low Visibility and adverse weather vehicles and equipment should be driven at a speed appropriate to the conditions and be alert to additional hazards.

12. References

ASWeather_OSI_052 – Low Visibility Operations.

ASDRVE_OSI_10 – ATC Radio Control of Vehicles on the Manoeuvring Area

ASDRVE_OSI_008 – Vehicles and Equipment Airside – Requirements

ASWorks_OSI_004_Appendix_B – Control of Work Airside Appendix B – Procedures for Working Airside

ASDRVE_OSI_089 – Management of Airside Infractions

CAP 642 Airside Safety Management

CAP 790 Airside Driving & Vehicle Operation

EASA ADR.OPS.B.025 Operation of Vehicles

Heathrow Airport - London Byelaws, 2014



Appendix A

Vehicle Maintenance Airside

It is recognised that there will be occasions where minor or emergency repairs are required to be completed on vehicles in the airside environment.

The purpose of this appendix is to set out;

- Which maintenance activities are permissible airside, and
- The safety related requirements for carrying out these activities.

It is expected that vehicle maintenance providers will comply fully with all the instructions set out in this appendix, and where appropriate ensure that all their staff, contractors and other related parties are aware of the requirements herein. It is also expected that vehicle maintenance providers will dedicate sufficient management time and resources to complying with these requirements.

Key definitions

Locations

Stand Footprint – This area is defined as the hard standing upon which an aircraft turnaround takes place. It is demarcated by white lines to both sides and double white lines to the rear of the stand. On some occasions double white lines will be to the sides of the stand in addition to the rear. To the head of stand (i.e. the nose of the aircraft) the Stand Footprint continues to the roadway and includes the area used by aircraft tugs to access the aircraft nose wheel. The Stand Footprint does not include defined equipment parking areas, which are usually located towards the head of the stand.

Inter-stand Clearway – This area is hard standing positioned to either side of an aircraft stand, used for the purposes of accessing the aircraft for turnaround activities, and for emergency service transit. Clearways are marked by a zig-zag white line running along their length, parallel to the stand.

Equipment Parking Areas / Parking Bays – Are marked areas of hardstanding, which may be adjacent to an aircraft parking stand, but are also present in numerous other places adjacent to the roadway system. These are provided for the purposes of parking equipment overnight or between aircraft turnaround activities. Parking bays are marked using a variety of different coloured paint; some will be dedicated to certain operators – signage or markings will be in place in this instance.



Airside Roads – Roadways are provided to allow access to Heathrow’s facilities. Roadways are marked using standard highway paint markings and road signage.

Maintenance Facility – An area leased to (or owned by) a vehicle maintenance provider (or their customer) for the purposes of providing a vehicle maintenance service.

Vehicle Maintenance Activities

Daily Inspections (DI) and Pre-Use Inspections – These activities are non-intrusive, visual safety checks of equipment prior to use; usually carried out by the operator of the vehicle or in some cases by a maintenance provider. For the purposes of this appendix, these requirements apply only to contracted vehicle maintenance providers carrying out these inspections.

Minor Repairs – A short duration repair required in order to restore the safe operation of the vehicle. A minor repair shall not include preventative or pre-planned maintenance such as replacement of filters or oil changes, unless such changes are related to the rectification of the original fault.

Emergency Repairs – A repair that is;

- Required to make a vehicle or piece of equipment mobile again which has become an obstacle, or
- Required to rectify an immediate health and safety risk to colleagues or passengers, or
- Required because, if not rectified, the failure would cause an unacceptable operational impact to passenger experience.

Vehicle Servicing – A preventative or pre-planned maintenance process designed to assure the safe operation and extend the life-span of a vehicle or equipment.

Permitted Locations

The following table details where each type of maintenance is permitted to be carried out;

	DI / Pre-Use Inspections	Minor Repairs	Emergency Repairs	Vehicle Servicing
Stand Footprint	x	x	✓	x
Inter-stand Clearway	x	x	✓	x
Equipment Parking Areas	✓	✓	✓	x
Airside Roads	x	x	✓	x
Maintenance Facilities	✓	✓	✓	✓



Any maintenance activities which do not fit the definition of an emergency repair, but are required to a vehicle which is positioned on a stand footprint, an inter-stand clearway, or an airside road **are not** permitted; the vehicle must be moved to either an equipment parking area or a maintenance facility for a minor repair to be carried out.

Personnel Requirements

Vehicle maintenance service providers must take steps to ensure that personnel carrying out duties in the airside environment are as visible as possible. Reflective Personal Protective Equipment (PPE) will support in this requirement, and therefore personnel carrying out maintenance duties airside must wear (as a minimum);

- High-visibility trousers
- High-visibility tabard or jacket
- Protective safety shoes or safety boots

Heathrow Operational Safety Instruction (OSI) ASGrOps_OSI_042 'Use of Personal Protective Equipment Airside' sets out the requirements for protective equipment (e.g. reflective standards).

In addition, the above OSI requires that personnel must carry hearing protection in areas likely to be subject to noise hazards.

Vehicle maintenance providers may also specify additional PPE in accordance with their own task-based risk assessments (gloves, glasses etc.). It is the responsibility of vehicle maintenance providers to ensure that their personnel wear the appropriate PPE for the task.

Vehicle maintenance providers must ensure that their personnel have received sufficient training for operating in the airside environment. Guidance on minimum induction training requirements is set out in ASGrOps_OSI_041 – 'Minimum Induction Training for Staff Operating on Airside Roads and Ramp Areas'. Support is also available from Heathrow Airside Operations in achieving this requirement.

Site Safety Requirements

Risk Assessment

Vehicle maintenance providers must complete a formal risk assessment for carrying out their activities in the airside environment. This risk assessment must consider the hazards to which personnel are likely to be exposed whilst carrying out their duties (including vehicle fires and use of fire extinguishers) and document control measures to reduce, as far as is practicable, the risk of personnel being injured.



Providers must communicate the contents of the risk assessment to their personnel and ensure that the identified control measures are included within their standard operating procedures and training programmes.

Vehicle maintenance personnel, upon arrival at a task, must carry out a dynamic risk assessment of the site and area in which the repair is to take place. The assessment must include (not exhaustive);

- The suitability of the site for the repair (surface condition, lighting conditions etc.)
- The ability to set up a safe working boundary and the ability to move around the vehicle safely, giving particular consideration to other vehicular traffic in the area.
- The ability for the operative to access the parts of the vehicle required to affect the repair without placing themselves at risk – especially when these parts may require working at height or underneath vehicles/equipment.

Where the operative identifies hazards during their dynamic assessment, suitable control measures must be put in place; for example, where lighting levels are deemed insufficient, artificial lighting should be provided, or the vehicle recovered to a maintenance facility.

Site Segregation and Protection

The following requirements are applicable to 'minor repairs' and 'emergency repairs' only. Vehicle maintenance providers may optionally choose to implement them for DI/Pre-use inspections.

When a safe protective zone for repairs is required;

- Barriers must be placed around the full perimeter of the vehicle being worked upon at a minimum distance of 1m from the vehicle/equipment. The purpose of the barrier perimeter is to increase the conspicuity of the vehicle under repair and to increase the distance at which other vehicles pass.
- Barriers must be of sufficient weight and stability to be unaffected by passing traffic or the prevailing weather conditions. Barriers must be able to withstand winds of 25kts without falling.
- Barriers must be a minimum height of 1m.
- Barriers must be conspicuously coloured and ideally, reflective in nature.
- Where the 1m perimeter from the subject vehicle protrudes into an airside road, into a clearway, or into a taxiway, maintenance operators may position barriers close alongside the vehicle so as not to infringe the roadway, clearway or taxiway, unless the maintenance provider is required to work on that side of the vehicle; in which case



maintenance providers must contact ASD on 0208 745 6024 to request support with traffic management.

Where practicable, the vehicle maintenance providers' service vehicle may be positioned in such a way to afford protection to the operative from other vehicles or the elements.

In addition, the following protective measures are required;

- Where practicable, the wheels of the vehicle/equipment must be turned in such a direction that, should the subject vehicle be struck by another vehicle, the vehicle will move away from the operative.
- The subject vehicle's wheels must be chocked, where practicable.
- The subject vehicle's engine must be switched off if not required for the repair.
- The subject vehicle's handbrake must be firmly applied.

Repair Durations

Both minor repairs and emergency repairs must be completed within 60 mins. Vehicles whose repairs cannot be carried out within this duration must be recovered to a dedicated maintenance facility by the maintenance provider. This recovery must take place immediately if the vehicle is in any position other than in an equipment parking bay, or within 24 hours if parked within a marked bay.

Heathrow Airside Operations reserves the right to direct vehicle maintenance providers to recover vehicles to dedicated maintenance facilities if it deems that a repair may not be completed safely within an appropriate time. Heathrow Airside Operations may also direct its own recovery provider to remove a vehicle if a maintenance provider cannot do so in a suitable time; costs for this service will be billed to the maintenance provider.

First Aid

Vehicle maintenance providers must ensure that appropriate facilities, equipment and personnel are available to enable first aid to be provided to their employees if they are injured or become ill at work.

A first aid needs assessment must be completed, taking into account that there is a Heathrow provision for medical emergencies (London Ambulance Service).



Supervision, Auditing and Record Keeping

Maintenance providers must hold records of all vehicle repairs that take place airside. These records must be made available to Heathrow Airside Operations upon request. These records must include as a minimum;

- Location of the repair
- Start and finish times of the repair
- Description of the vehicle/equipment repaired, including registration number
- Confirmation that a pre and post repair safety inspection took place
- Description of work completed
- Names of the personnel involved in the repair

Maintenance providers must also hold records to demonstrate that they have conducted routine auditing, monitoring and reviewing of their safe systems of work. This must include both scheduled and unplanned visits and inspections to airside vehicle repairs to ensure that vehicle maintenance operators are adhering to safe systems of work.

Vehicle maintenance providers must complete a minimum of 12 supervisory site audits each year, and must hold records of these audits which must be made available to Heathrow Airside Operations upon request.

These records must include as a minimum;

- Location of the repair
- Start and finish times of the repair, and of the audit
- Description of the vehicle/equipment repaired, including registration number
- Confirmation that a pre and post repair safety inspection took place
- Description of work completed
- Names of the personnel involved in the repair
- Whether the safe system of work was adhered to, including all control measures identified through risk assessment
- Details of any matter identified that risks the health & safety of any person
- Details of any action taken in respect of any matter identified above
- Details of any further actions considered necessary as a result of the audit
- The auditor's name

Heathrow Airside Operations will also carry out random on-site audits of vehicle maintenance activity to ensure that these requirements are adhered to. Results will be shared with the appropriate vehicle maintenance provider.



Near Miss Reporting

Vehicle maintenance providers must have in place a safety reporting system to enable personnel operating airside to raise concerns related to their health and safety whilst carrying out their duties. Vehicle maintenance providers must share with Heathrow without delay the findings from any near miss or safety observation reports which may influence either the content of these requirements, or the processes and procedures employed by other vehicle maintenance providers.



APPENDIX B

Removal of Obstructions & Redundant or Unserviceable Equipment Airside

Introduction

This Appendix covers: -

The removal of obstructions on aircraft parking stands.

The removal of unserviceable and redundant equipment on airside.

It is a vital part of airside safety to ensure that aircraft stands remain free of obstruction. Accidents can occur and have occurred when aircraft have struck obstructions left on stands. Obstructed aircraft stands must be closed until the obstruction is removed, which may result in diverting aircraft to other stands at short notice, with the associated disruption to aircraft operations and passenger service.

The risk of obstruction is increased when vehicles are prevented from parking correctly, by items of abandoned equipment left in parking bays and other areas. Unnecessary congestion is caused by abandoned and infrequently used equipment being left in inappropriate areas.

Removal of an Obstruction from a Stand

When an Airport Official observes an obstructed stand, the person causing the obstruction will be requested to remove the obstruction to a safe place. Depending on a satisfactory resolution no further action will be taken, however, failure to remove the obstruction within the requested timescale will result in a verbal warning or issue of an Airside Occurrence Ticket (AOT).

If the person causing the obstruction cannot be identified, the company in charge of the items causing the obstruction will be informed and given 20 minutes to remove them. Assuming the items are removed within this time, no further action will be taken, unless an aircraft has been delayed or diverted to another stand as a result of the obstruction, in which case the company in charge of the item causing the obstruction (the Company) will be fined.

If an aircraft is waiting to park on the stand or has landed and is taxiing to the stand, the obstruction may be removed by HAL if it is possible to do so. The Company may be issued with an AOT and fined, and the driver of any vehicle / equipment will be issued with an AOT under the Penalty Points Scheme.



Obstructions which are not removed within the 20-minute warning period will be cleared by HAL if it is possible to do so. The items will be removed and stored. The Company will be fined per item.

The owners of the equipment will be advised that the item has been removed to storage location and that if the items are not claimed within the stated time (refer to ASDRVE_OSI_087 Management of Airside Infractions), the item will be identified for disposal. The Airline Operators Committee (AOC) Terminal Representative will be advised to arrange for the owner(s) to collect their property. If after the stated period the items are still not collected they will be sold. If the items cannot be sold because it is not practicable items will be scrapped. All costs involved whether the items are sold or scrapped will be charged to the Company.

Where HAL or a Constable are unable to remove large vehicles or items of equipment which have not been removed by the Company within the 20 minutes warning period, and where the presence of which prohibits the stand from being used safely and/or commercially, an Airside Infringement Notice (AIN) will be issued and the Company will be informed a second time. The Company will be advised that they will be invoiced for the full parking charge as appropriate to that stand, while the obstruction continues. Full parking charges will apply 24 hours per day and any waiver of charges will not apply.

HAL Airside Operations are responsible for managing the airside environment and will maintain a full record of each event in which stands are closed and full parking charges are levied, all items that have been removed and their subsequent storage and, where appropriate, their disposal. Requests for information should be made to the Airfield Duty Manager AfDM on 020 8745 7373.

Removal of Redundant or Unserviceable Equipment

Unserviceable Equipment means any vehicle or equipment that is so defective as to prevent it from being used as intended. Unserviceable Equipment should be removed from airside as soon as possible, to await repair. To aid HAL Airside Operations, companies are required to operate an unserviceable vehicle/equipment tagging system and forward their removal plan to the HAL Ground Handling Team.

A deadline for removal will be agreed with the user of the equipment. A Fine will be levied if the deadline is not met. If HAL must remove the equipment then there will be a further fine for the user, on retrieval. If the user fails to retrieve equipment, HAL will dispose of the item.

Redundant Equipment means vehicles or items of equipment that are clearly not used and have been left in parking bays or equipment areas, and is un-tagged, must be removed from airside at once. If circumstances prevent this, discussions should be held with HAL Airside Operations to arrange removal of the items to a safe alternative location



S **Aerodrome Safety**

Redundant Equipment or Unserviceable Equipment found parked in stand equipment areas will be liable for removal. The owner/operator of the items will be contacted to remove the items. If the notice period is exceeded, a fine will be levied and the items will be removed.

Certain items of ground equipment are not often used but are nevertheless required to be located at head of stand near the operation. These items may be stored in especially marked parking bays arranged by agreement with HAL. Equipment parked in an allocated parking bay will not be moved even though it may not be used for extended periods of time.



Appendix C

Aircraft Tug 'Solo' Free Ranging Map



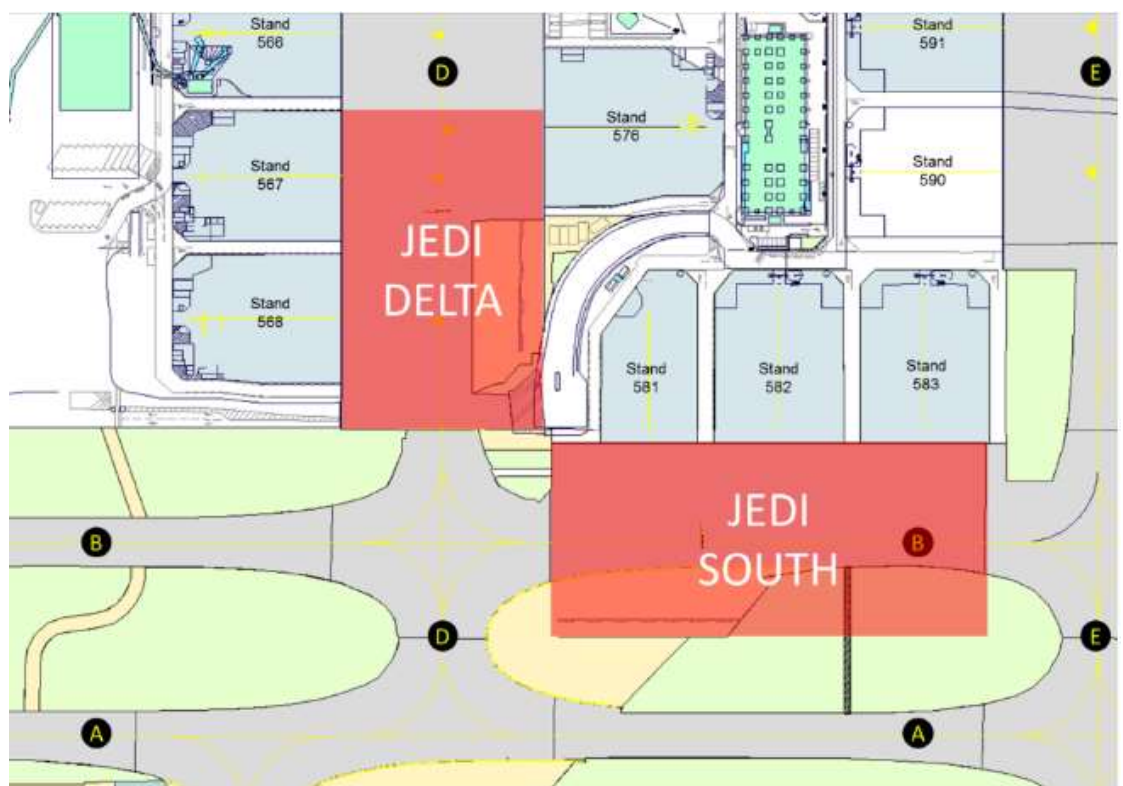
APPENDIX D

JEDI and VADER Locations

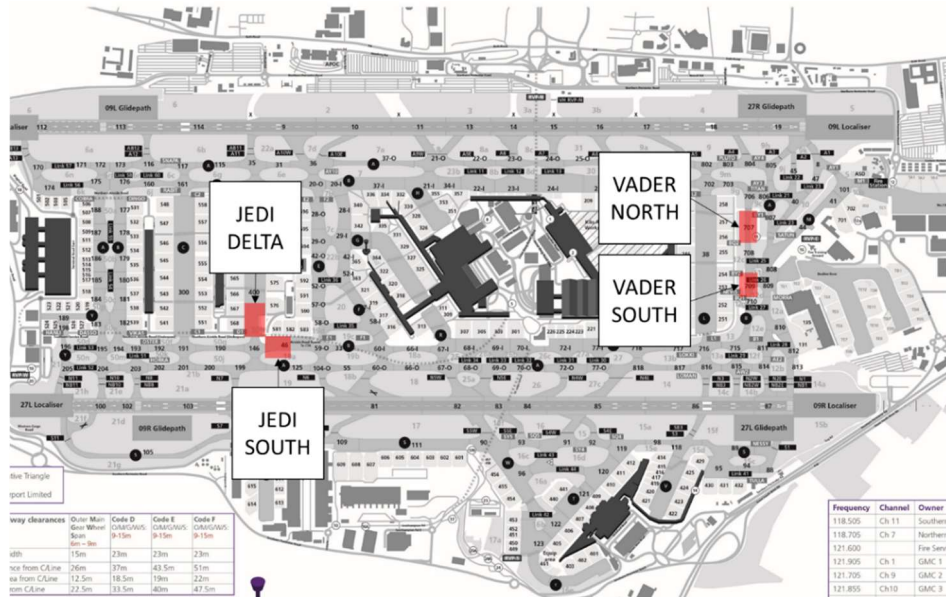
The diagram below shows the areas that form part of JEDI Delta and JEDI South:

JEDI Delta occupies the Delta Taxiway (Block 400) between the Delta-Bravo South stop bar and the northern edge of Stand 567.

JEDI South occupies Block 46 on Bravo South (between Delta and Echo). The southern edge of JEDI South is delineated by a row of alternating red and white melba blocks.



The diagram below shows the areas that form part of VADER North and VADER South:



VADER North occupies Block 709 on Bravo East / Bravo East between **BY1** and **BQ2**.

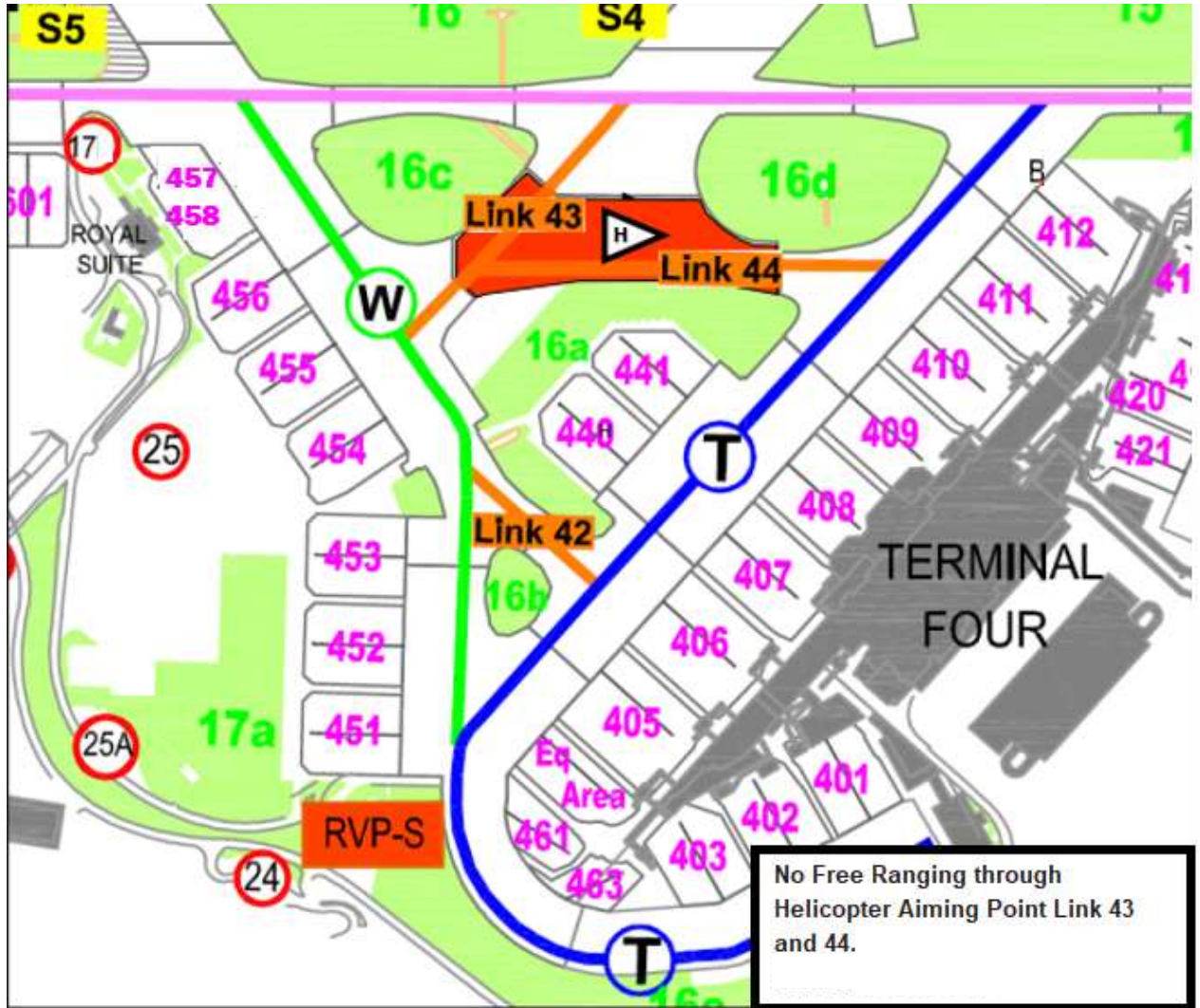
VADER South occupies Block 707 on Bravo East / Bravo East between **BY2** and **BQ1**.

The planned use of JEDI or VADER will be promulgated through the Heathrow Operational Conference Call (HOCC) and AOP (previously A-CDM). There will be no specific communications regarding the suspension of free-ranging.



Appendix E

Helicopter Aiming Point Location



Helicopter Aiming Point Signage

