
IRELAND

Phone: +353 (0)61 703 750
Fax: +353 (0)61 366 245
AFS: EINNZPZX
Email: aisops@iaa.ie
URL: <https://www.iaa.ie>



Irish Aviation Authority
Aeronautical Information
Service
Ballycasey Cross
Co. Clare
V14 C446

AIC: 010/2022
Effective Date: 06-Oct-2022
Publication Date: 25-Aug-2022
End Date: DD-MMM-YYYY
Publishing Organisation: IAA

**TEMPORARY DANGER AREAS
VIRGIN ORBIT UK ROCKET LAUNCH
06 OCTOBER 2022 - 06 JANUARY 2023****1. Introduction**

- 1.1 Virgin Orbit (VO) are a satellite launch company, registered in the United Kingdom, who have carried out successful launches in the United States of America, using a 21 meter long two-stage liquid propellant rocket, known as Launcher One, which is released from a modified B747 carrier aircraft called Cosmic Girl.
- 1.2 It is VO intention to conduct a similar operation from Spaceport Cornwall in the UK (also known as Cornwall Airport, Newquay), to deliver satellites to Low Earth Orbit.
- 1.3 The VO activity will take place between **6 October 2022 and 6 January 2023** (the specified period). The period of activity will be approximately 2 hours in duration (within 22:00 and 23:59 UTC) according to operational need, directly affecting Shannon FIR/UIR, Shanwick FIR/UIR, Shannon Oceanic Transition Area (SOTA), Madrid FIR/UIR, Santa Maria FIR/UIR, Lisboa FIR/UIR and Canarias FIR/UIR.
- 1.4 The VO activity will take place within Five Temporary Danger Areas (TDAs), described in section 2 (Details).
- 1.5 Associated Buffer Zones/Oceanic separation standards will be established according to the standard procedures in place at each affected FIR/UIR. The coordinates for any buffers/separation standards will be made available via the Eurocontrol Network Operations (NOP) Portal in advance of any activation NOTAM.
- 1.6 The final activation and deactivation hours of the airspace reservation associated with the TDA's will be published by the Irish Aviation Authority (IAA) and other national authorities with NOTAM responsibility for each of the affected FIRs/UIRs.
- 1.7 To ensure a coordinated and consistent approach to the promulgation of this information, it has been agreed between the affected National Authorities that the UK AMC will act as the Lead AMC for this activity.

2. Details**2.1 Temporary Danger Area 1 (EUVIRGIN 01)**

- AMC: Manageable.
- Upper Limit: FL400.
- Lower Limit: SFC.
- Activity: Orbital Rocket Launch.

- Service: No Danger Area Information Service (DAAIS) or Danger Area Crossing Service (DACS) is provided for this TDA.
- Access: Requests for access to the TDAs by airborne emergency services, aircraft with an emergency or aircraft operating in support of National Security will be given priority and any launch activity will be suspended. Requests for access can be made direct to Air Traffic Control (Shannon +35361366148) or Virgin Orbit by phone on +1-562-706-3647 or +1-661-754-4371.
- The airspace complex is sponsored by Virgin Orbit.
- Hours: Activated by
 - Temporary Danger Area 1 airspace in the Shannon FIR will be activated by the IAA via NOTAM.
 - Temporary Danger Area 1 in the Shannon Oceanic Transition Area (SOTA) will be activated by the UK via "G" series NOTAM.

2.2 Temporary Danger Area 2 (EUVIRGIN 02)

- AMC: Manageable.
- Upper Limit: UNL.
- Lower Limit: SFC.
- Activity: Orbital Rocket Launch.
- No DAAIS or DACS is provided for this TDA.
- Access: Requests for access to the TDAs by airborne emergency services, aircraft with an emergency or aircraft operating in support of National Security will be given priority and any launch activity will be suspended. Requests for access can be made direct to Air Traffic Control or Virgin Orbit by phone on +1-562-706-3647 or +1-661-754-4371.
- The TDA complex is sponsored by Virgin Orbit.
- Hours: Activated by
 - Temporary Danger Area 2 airspace in the Shannon FIR will be activated by the IAA via NOTAM.
 - Temporary Danger Area 2 airspace in the Shannon Oceanic Transition Area (SOTA) will be activated by the UK via "G" series NOTAM.

2.3 Temporary Danger Area 3 (EUVIRGIN 03)

- AMC: Manageable.
- Upper Limit: UNL.
- Lower Limit: SFC.
- Activity: Orbital Rocket Launch.
- No DAAIS or DACS is provided for this TDA.

- Access: Requests for access to the TDAs by airborne emergency services, aircraft with an emergency or aircraft operating in support of National Security will be given priority and any launch activity will be suspended. Requests for access can be made direct to Air Traffic Control (Shannon & Shanwick) or Virgin Orbit by phone on +1-562-706-3647 or +1-661-754-4371.
- The TDA complex is sponsored by Virgin Orbit in accordance with ACP-2021-031.
- Hours: Activated by
 - Temporary Danger Area 3 airspace in the Shannon Oceanic Transition Area (SOTA) will be activated by the UK via “G” series NOTAM.
 - Temporary Danger Area 3 airspace in other affected FIR/UIR will be activated by National Authorities with NOTAM responsibility for that airspace.

2.4 Temporary Danger Area 4 (EUVIRGIN 04)

- AMC: Manageable.
- Upper Limit: UNL.
- Lower Limit: SFC.
- Activity: Orbital Rocket Launch.
- No DAAIS or DACS is provided for this TDA.
- Access: Requests for access to the TDAs by airborne emergency services, aircraft with an emergency or aircraft operating in support of National Security will be given priority and any launch activity will be suspended. Requests for access can be made direct to Air Traffic Control or Virgin Orbit by phone on +1-562-706-3647 or +1-661-754-4371.
- The TDA complex is sponsored by Virgin Orbit in accordance with ACP-2021-031.
- Hours: Activated by
 - Temporary Danger Area 4 airspace does not include the Shannon FIR/UIR or SOTA, therefore this TDA will be activated by the National Authorities with NOTAM responsibility for that airspace.

2.5 Temporary Danger Area 5 (EUVIRGIN 05)

- AMC: Manageable.
- Upper Limit: UNL.
- Lower Limit: SFC.
- Activity: Orbital Rocket Launch.
- No DAAIS or DACS is provided for this TDA.
- Access: Requests for access to the TDAs by airborne emergency services, aircraft with an emergency or aircraft operating in support of National Security will be given priority and any launch activity will be suspended. Requests for access can be made direct to Air Traffic Control or Virgin Orbit by phone on +1-562-706-3647 or +1-661-754-4371.
- The TDA complex is sponsored by Virgin Orbit in accordance with ACP-2021-031.

- Hours: Activated by
 - Temporary Danger Area 5 airspace does not include the Shannon FIR/UIR or SOTA, therefore this TDA will be activated by the National Authorities with NOTAM responsibility for that airspace.

3. Activations

- 3.1 Each Flexible Use of Airspace (FUA) restriction will be activated by NOTAM and should be published at least 15 days prior to the planned activity. Relevant FUA restrictions will be applied via the Eurocontrol Network Manager Airspace Use Plan on the day before the activity (D-1) and published on the Network Operations Portal.

4. Coordinates

- 4.1 The final TDA coordinates activated in each FIR/UIR will be confirmed by NOTAM.
- 4.2 The coordinates for Temporary Danger Areas (EUVIRGIN 1-5) are Aeronautical Data Quality (ADQ) compliant.

5. Lateral Dimensions - TDA 1 (EUVIRGIN 1)

- 5.1 Temporary Danger Area 1 (EU Virgin 1) will be established within the area bounded by:

Point Coordinates

a	514132.99N	0113752.58W	then straight line to
b	513604.93N	0104652.46W	then straight line to
c	512633.74N	0102355.76W	then straight line to
d	502009.88N	0104324.56W	then straight line to
e	503058.39N	0120549.16W	then straight line to
f	514132.99N	0113752.58W	-

6. Lateral Dimensions - TDA 2 (EUVIRGIN 2)

- 6.1 Temporary Danger Area 2 (EU Virgin 2) will be established within the area bounded by:

Point Coordinates

a	512833.69N	0110625.08W	then straight line to
b	512419.80N	0103343.52W	then straight line to
c	504446.68N	0104742.04W	then straight line to
d	501640.36N	0104303.03W	then straight line to
e	490424.29N	0110859.26W	then straight line to
f	491209.65N	0120256.82W	then straight line to
g	502413.78N	0114154.24W	then straight line to
h	504915.24N	0111943.20W	then straight line to
i	512833.69N	0110625.08W	-

7. **Lateral Dimensions - TDA 3 (EUVIRGIN 3)**

7.1 Temporary Danger Area 3 (EU Virgin 3) will be established within the area bounded by:

Point Coordinates

a	491209.65N	0120256.82W	then straight line to
b	490434.29N	0110859.26W	then straight line to
c	422121.89N	0123503.92W	then straight line to
d	404445.00N	0131114.86W	then straight line to
e	410655.27N	0152220.79W	then straight line to
f	424532.34N	0150015.26W	then straight line to
g	491209.65N	0120256.82W	-

8. **Lateral Dimensions - TDA 4 (EUVIRGIN 4)**

8.1 Temporary Danger Area 4 (EU Virgin 4) will be established within the area bounded by:

Point Coordinates

a	410655.27N	0152220.79W	then straight line to
b	404445.00N	0131114.86W	then straight line to
c	384435.31N	0133714.61W	then straight line to
d	364503.65N	0141126.56W	then straight line to
e	370858.18N	0163047.65W	then straight line to
f	390917.45N	0160503.49W	then straight line to
g	410655.27N	0152220.79W	-

9. **Lateral Dimensions - TDA 5 (EUVIRGIN 5)**

9.1 Temporary Danger Area 5 (EU Virgin 5) will be established within the area bounded by:

Point Coordinates

a	370858.18N	0163047.65W	then straight line to
b	364503.65N	0141126.56W	then straight line to
c	272309.44N	0170023.71W	then straight line to
d	274035.39N	0182500.43W	then straight line to
e	370858.18N	0163047.65W	-

10. **Flight Planning Procedures**

10.1 **Shannon FIR**

A 5nm buffer will be applied to the edge of the TDA's in the Shannon FIR/UIR and SOTA.

10.2 Flight Plan Routings and North Atlantic Track information

As per ICAO NAT Doc 008, within North Atlantic airspace, operators must ensure:

A minimum separation of 30 NM from the nearest limit of the reserved airspace provided the aircraft meets the required navigation specification (MNPS) and a portion of the route is above, within or below NAT HLA or;

60 NM from the nearest limit of the reserved airspace of the stationary airspace reservation, when the aircraft does NOT meet the required navigation specification.

To assist operators with their Flight Planning Prestwick Area Control Centre will issue an Aeronautical Information Message (AIM) prior to the start of the launch. The AIM will include suggested routings for flight planning around the active area during the launch.

11. Contact Details

- 11.1 Booking, management or activation enquiries should be made to the UK Airspace Management Cell via the Military Airspace Management Cell, SWK-MAMC-ManagedAirspace@mod.gov.uk.