

**ENR 2.2 OTHER REGULATED AIRSPACE**

SPECIAL PROCEDURES WITHIN THE SHANNON UTA/SOTA/NOTA FOR NORTH ATLANTIC TRAFFIC

**1. INTRODUCTION**

A significant proportion of NAT traffic transits the SHANNON UTA/SOTA/NOTA to and from major European destination areas. The following paragraphs describe the procedures for NAT traffic transiting this Airspace.

**2. ATS ROUTEING PROCEDURES FOR WESTBOUND NAT TRAFFIC**

In the Westbound NAT OTS signal SHANWICK OAC promulgates the track structure(s) applicable together with such other information as may be considered useful for operators to identify the route to be flown.

**3. ATS ROUTEING PROCEDURES FOR EASTBOUND NAT TRAFFIC**

3.1 The domestic Landfall points KESIX, OSBOX, BEGID, SOVED, MOGLO, NETKI, KOKIB, BEXET, OLGON, GISTI, RILED, XETBO, LEKVA, ELSOX, EPUNA, ATSUR, BIMGO, NERTU, GUNSO and EMPER, which are associated with the Oceanic Entry points, are promulgated in the eastbound OTS message. Use of these points may vary from day to day depending on the published OTS.

3.1.1 If an Eastbound NAT Flight operating to a specified destination is rerouted via an oceanic Landfall different to that filed in the flight plan, the flight may route DCT from the new Landfall to the original filed exit point from Irish Airspace. In the event of an alternative route being issued by IFPS SHANNON ATC will advise the flight on first contact.

3.1.2 Due to a number of flights deviating from clearances prior to exiting SHANWICK Oceanic Controlled Airspace, Flight crew are reminded of the following, Eastbound route clearances issued by SHANNON Control for Aircraft exiting Oceanic Airspace apply from AGORI, SUNOT, BILTO, PIKIL, ETARI, RESNO, VENER, DOGOL, NEBIN, MALOT, TOBOR, LIMRI, ADARA, DINIM, RODEL, SOMAX, KOGAD, BEDRA, OMOKO, TAMEL, and LASNO. Flights shall not turn before these points.

**4. IDENTIFICATION OF NAT TRACK MESSAGES & CLEARANCE DELIVERY PROCEDURES****4.1 Track Message Identification (TMI)**

See UK IAIP

**4.2 Oceanic Clearance Procedures for Transit Westbound Aircraft**

4.2.1 Westbound aircraft operating within the SHANNON FIR/UIR/SOTA/NOTA should request Oceanic Clearance from SHANWICK on the appropriate frequency or via OCL.

4.2.2 Aircraft unable to contact "SHANWICK" on VHF or via OCL should request clearance on a NARTEL HF frequency and thereafter maintain a SELCAL watch for receipt of the Oceanic Clearance.

4.2.3 Aircraft unable to contact "SHANWICK" on VHF, via OCL or on NARTEL HF should request SHANNON Area Control Centre to relay their request for Oceanic Clearance to SHANWICK.

4.2.4 Aircraft in communication with SHANWICK for Oceanic Clearance, on VHF or HF are to maintain communication with SHANNON Control on the appropriate frequency

**4.3 Request for clearance should include:-**

- Flight Identification
- Flight Identification
- Oceanic Entry point and ETA
- Requested MACH No and Flight Level
- Any change to flight plan affecting OCA

4.3.1 Oceanic clearance must be received prior to entering Oceanic Airspace.

**4.4 Oceanic Clearance Request for aircraft departing from Irish Aerodromes**

4.4.1 Oceanic Clearance Request

SHANNON FIR Aerodrome or Aerodrome Group	Jet Departures	Non Jet Departures
EIDW, EIWT, EIME	For ALL Oceanic entry points, request when airborne.	

SHANNON FIR Aerodrome or Aerodrome Group	Jet Departures	Non Jet Departures
EICK	If flight planned to enter Shanwick airspace via OMOKO, TAMEL or LASNO, Oceanic clearance required prior to departure.  All other Oceanic entry points, <b>if the elapsed time to Shanwick Entry Point is 40 minutes or less, Oceanic clearance required prior to departure.</b>	
All Other Aerodromes	If the elapsed time to Shanwick Entry Point is 40 minutes or less, Oceanic Clearance required prior to departure.	

Oceanic clearances should be requested from SHANWICK Oceanic via OCL. SHANNON ACC will, on request, obtain Oceanic clearance from SHANWICK Oceanic and pass the clearance to the flight prior to departure. Flights requesting Oceanic clearance when airborne shall obtain clearance when airborne (with the exception of Cork as outlined above) when airborne and in accordance with provisions of [ENR 2.2 4.2](#) here above.

#### 4.4.2 SHANNON

Operating companies or their agents should contact SHANNON Area Control Centre

Phone: + 353 61 770 700 EXTN 122/123

40 minutes before ETD or pilots of aircraft should contact SHANNON Area Control Centre on frequency 121.700MHz 40 minutes before ETD, to request Oceanic Clearance. Pilots should contact SHANNON ATCC on frequency 121.700MHz at least 15 minutes before start up, to obtain Oceanic clearance.

#### 4.4.3 Dublin Aerodrome, Weston Aerodrome and Casement (Baldonnel) Aerodrome:

Aircraft departing Dublin Aerodrome, Weston Aerodrome and Casement (Baldonnel) Aerodrome planned to enter NAT Airspace should request Oceanic Clearance when airborne. Pilots should make this request via OCL or SHANWICK Radio 127.900MHz.

#### 4.4.4 Other Aerodromes

The operating company or its agent should contact the ATS Unit at the airport of departure 40 minutes before ETD and request Oceanic Clearance.

### 4.5 Oceanic Clearance Delivery for SHANNON/Cork Departures on NAT OTS

#### 4.5.1 Oceanic Clearance for SHANNON/Cork Departures on NAT OTS shall be issued by SHANWICK using the track letter without the current NAT Track message identification number.

Example of ATC issued clearance "SHANWICK clears N865J to KJFK FL350 Track Bravo Mach.82 to cross LIMRI at 1245 + or - 2 minutes".

#### 4.5.2 Pilots shall include the NAT Track message identification numbers in the read back of the Oceanic Clearance.

Example of pilot read back: "N865J is cleared to KJFK via Track BRAVO, maintain Flight Level Three Five Zero, Mach decimal Eight Two to cross LIMRI at 1245 + or - 2 minutes". The Track ID is 256.

#### 4.5.3 If the Track message identification number is included in the read back there is no requirement for the pilot to read back the NAT Track co-ordinates.

#### 4.5.4 If any doubt exists as to the Track message identification of the NAT Track co-ordinates the pilot should request the full Track co-ordinates from the relaying ATS unit.

#### 4.5.5 Similarly, if the pilot fails to identify the correct Track ID or fails to respond with the Track ID, the ATS unit shall request a full read back of the clearance with the NAT track co-ordinates.

### 4.6 Oceanic Clearance Delivery for other Aerodromes on NAT OTS

For Oceanic Clearance on NAT OTS Departures from the other Aerodromes, the ATS unit shall issue the Oceanic Clearance to the flight on behalf of SHANWICK Oceanic and read the cleared NAT Track coordinates in full and request a full read back of those co-ordinates.

### 4.7 Oceanic Clearance Delivery for Random Routeings

For aircraft cleared on random routeings from any airport, the present procedure of reading the full track co-ordinates as part of the Oceanic clearance and requesting a full read back from the pilot is unchanged.

## 5. OCEANIC FLIGHT PLANS

#### 5.1 Flight plans in respect of Oceanic flights which are planned to enter SHANNON FIR/UIR/SOTA/NOTA must be submitted to IFPS.

#### 5.2 Jet aircraft intending to operate in the SHANWICK OCA must indicate the MACH number planned to be used for

any portion of the flight within the area in Item 15 of the ICAO flight plan.

Jet aircraft should indicate their proposed speeds in the following sequence:

- a. Cruising speed (TAS) in knots;
- b. Oceanic Entry point and cruising MACH number;
- c. Landfall Fix and cruising speed (TAS) in knots.

5.3 All other aircraft: speed in terms of TAS in knots.

## **6. RADIO COMMUNICATIONS FAILURE PROCEDURES FOR OCEANIC AIRCRAFT INTENDING TO ENTER OR EXIT NAT AIRSPACE VIA SHANNON FIR/UIR/SOTA/NOTA**

6.1 The following procedures apply to oceanic aircraft intending to enter or exit NAT airspace via the SHANNON FIR/UIR/SOTA/NOTA. These procedures are intended to complement and not supersede State procedures/regulations. It is not possible to provide guidance for all situations associated with a communications failure.

6.2 General

6.2.1 The pilot of an aircraft experiencing a two-way radio communications failure shall operate the secondary radar transponder on identity Mode A Code 7600 and Mode C.

6.2.2 The pilot shall also attempt to contact any ATC facility (on VHF or HF) or another aircraft and inform them of the difficulty and request they relay information to the ATC facility with whom communications are intended.

6.3 Communications Failure Prior To Entering NAT Oceanic Airspace

Due to the potential length of time in oceanic airspace, it is strongly recommended that a pilot experiencing communications failure whilst still in SHANNON FIR/UIR/SOTA/NOTA does not enter SHANWICK Oceanic Control Area but adopts the procedure specified at Procedure A below. However, if the pilot elects to continue then, to facilitate the provision of adequate separation, adopt either the Procedure B or Procedure C below.

Procedure A

For this procedure the pilot is deemed to have selected SHANNON as the aerodrome of intended landing. Proceed, maintaining the last assigned and acknowledged flight level, to the appropriate hold specified for SHANNON and hold for a period of not less than five minutes. Then commence descent and complete a normal instrument approach. For the procedure as outlined in this paragraph and in order to avoid ambiguity SHANNON is the only Irish aerodrome which may be used.

Procedure B

If operating with a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the cleared first oceanic entry point, level and speed and proceed in accordance with the received and acknowledged oceanic clearance. Any level or speed changes required to comply with the oceanic clearance shall be completed within SHANNON FIR/UIR/SOTA/NOTA in the vicinity of the oceanic entry point.

Procedure C

If operating without a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the first oceanic entry point, level and speed, as contained in the filed flight plan and proceed via filed flight plan route to landfall. Maintain the first filed oceanic level and speed to landfall. Any level or speed changes required shall be completed within SHANNON FIR/UIR/SOTA/NOTA in the vicinity of the oceanic entry point.

6.4 Communications Failure Prior To Exiting NAT Oceanic Airspace

6.4.1 Cleared on Flight Plan Route

The pilot shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall and maintain the last assigned oceanic level and speed to this point. Unless the pilot elects to adopt the procedure outlined at [ENR 2.2 6.4.3](#) below, after landfall proceed in accordance with the filed flight plan (Level/speed/route).

6.4.2 Cleared on other than Flight Plan Route the pilot shall proceed in accordance with the last received and acknowledged oceanic clearance to the last specified oceanic route point, normally landfall. Unless the pilot elects

to adopt the procedure outlined at [ENR 2.2 6.4.3](#) below, after passing this point, proceed to the next significant point ahead of the track of the aircraft as contained in the filed flight plan. Maintain the last assigned oceanic level and speed to landfall, thereafter the flight level and speed contained in the filed flight plan.

6.4.3 Diversion to SHANNON

In the event of the pilot electing to divert to SHANNON, after landfall proceed direct to the appropriate hold specified for SHANNON in [Table 1](#): here under, maintaining the last assigned oceanic level and hold for a period of not less than five minutes. Then commence descent and complete a normal instrument approach. For the procedure as outlined in this paragraph and in order to avoid ambiguity SHANNON is the only Irish aerodrome which may be used.

**Table 1: Appropriate Holds specified for SHANNON**

HOLD	RWY
DERAG for ILS approach	24
ELPOM for ILS approach	06

**7. REQUEST FOR OCEANIC RE-CLEARANCE FOR AIRCRAFT TRANSITING THE SHANNON FIR/ UIR/NOTA AND SOTA.**

Aircraft requesting a change to their Ocean clearance must,

- a. If East of 10W make their request to SHANWICK on VHF/HF or CPDLC otherwise
- b. If West of 10W make their request to SHANNON ACC on VHF.

**8. STRATEGIC LATERAL OFFSET PROCEDURE**

The Strategic Lateral Offset Procedure (SLOP) is now a standard operating procedure throughout the North Atlantic (NAT) Region. This procedure mitigates collision risk and wake turbulence encounters. Pilots conducting oceanic flight within the NAT Region with automatic offset programming capability are recommended to fly lateral offsets of either 1 or 2 NM right of centre line.

The introduction of very accurate aircraft navigation systems, along with sophisticated flight management systems, has drastically reduced the number of risk bearing lateral navigation errors reported in NAT airspace. Paradoxically, the capability of aircraft to navigate to such a high level of accuracy has led to a situation where aircraft on the same track but at different levels, are increasingly likely to be in lateral overlap. This results in an increased risk of collision if an aircraft departs from its cleared level for any reason.

SLOP reduces risk by distributing aircraft laterally. It is applicable within the New York Oceanic, Gander Oceanic, SHANWICK Oceanic, Santa Maria Oceanic, Sondrestrom and Reykjavik flight information regions, and within the Bodo Oceanic flight information region when flights are operated more than 185km (100 NM) seaward from the shoreline.

SLOP conforms to direction in the International Civil Aviation Organization's (ICAO) Procedures for Air Navigation Services–Air Traffic Management (PANS–ATM, Doc 4444, 15.2.4) and is subject to the following guidelines:

- Aircraft without automatic offset programming capability must fly the route centre line.
- Operators capable of programming automatic offsets may fly the centre line or offset one or two nautical miles right of centre line, allowing for 3 possible positions along route. Offsets are not to exceed 2 NM right of centre line and offsets to the left of centre line are not permitted. An aircraft overtaking another aircraft should offset within the confines of this procedure, if capable, so as to create the least amount of wake turbulence for the aircraft being overtaken. The pilot should take into account wind and estimated wake vortex drift and time to descend. (Nominal descent rates for wakes are 300-600 FPM).
- Pilots should use whatever means is available (e.g. TCAS, communications, visual acquisition) to determine the best flight path to fly. Pilots may contact other aircraft on frequency 123.450MHz, as necessary, to coordinate the best wake turbulence offset option.
- Pilots may apply an offset outbound after the oceanic entry point and must return to centre line before the oceanic exit point. Position reports transmitted via voice should be based on the way-points of the current ATC clearance and not the offset positions.
- Aircraft transiting oceanic radar areas may remain on their established offset positions.
- There is no ATC clearance required for this procedure and it is not necessary that ATC be advised.

**9. SHANNON OCEANIC TRANSITION AREA (SOTA)****9.1 The SHANNON Oceanic Transition Area (SOTA)**

consists of that portion of the SHANWICK Flight Information Region/Oceanic Control Area with lateral and vertical limits specified at [Table 2](#):

**Table 2: SHANNON Oceanic Transition Area**

Name, Lateral limits, Vertical limits, Class of Airspace	Unit providing service	Call Sign. Languages. Area and conditions of use. Hours of Service	Frequency / Purpose	Remarks
1	2	3	4	5
<b>SHANNON Oceanic Transition Area (SOTA)</b> 5100N 01500W, 5100N 00800W, 4830N 00800W, 4900N 01500W, 5100N 01500W FL055/FL660 - Class A FL660/UNL - Class G	ATS SHANNON	SHANNON Control English H24	135.600MHz	

**9.2 Addressing of Flight Plan Messages**

Flight plans required for the SOTA should be addressed to the IFPS addresses EUCHZMFP and EUCBZMFP.

**9.3 Delegation of Control within Airspace Contiguous with SOTA**

9.3.1 Control of GAT above FL245 within the airspace bounded by lines joining the coordinates listed below is delegated by the UK authorities to SHANNON UAC.

4935.00N 00800.00W: 4933.38N 00656.04W: 4855.70N 00734.46W: 4850.00N 00800.00W: 4935.00N 00800.00W

9.3.2 Control of GAT above FL245 within the airspace bounded by lines joining the coordinates listed below is delegated by the French authorities to SHANNON UAC.

4850.00N 00800.00W: 4855.70N 00734.46W: 4830.00N 00800.00W: 4850.00N 00800.00W.

9.3.3 Procedures applicable within the airspace described at [ENR 2.2 9.3.1](#) and [ENR 2.2 9.3.2](#) above are those procedures applicable within SOTA. The following applies:

- Controlling Authority - SHANNON UAC
- Call sign - SHANNON Control
- Frequency - As allocated by ATS

9.3.4 Due to the risk of two aircraft using the same squawk leading to a mis-ident, Northbound traffic entering the SHANNON Oceanic Transition Area (SOTA) via T9, LASNO or T213, TAMEL are instructed to set Transponder code A2000 at least 10 minutes before the above points.

**9.4 Position Reports**

All designated points on the SOTA boundary are compulsory position reporting points, unless otherwise advised by SHANNON ACC.

**9.5 Oceanic Clearance Procedures**

Requirements regarding requests for oceanic clearances, detailed above, [ENR 2.2 4.2](#) and or [ENR 2.2 7](#) should be complied with.

**9.6 Met Reporting Procedures in SOTA**

9.6.1 Pilots of aircraft in the SOTA are required to comply with the MET reporting procedures in ICAO DOC 8896 Chapter 7 "Aircraft Observations and Reports".

9.6.2 If the aircraft is designated to report meteorological information, the pilot will be advised by the inclusion of the phrase "SEND MET REPORTS" in the clearance message.

9.6.3 Westbound North Atlantic (NAT) Random flights and NAT Oceanic Track System (OTS) flights, designated as MET reporting flights, are to treat W008 as a mid-point and W015 as a designated Reporting point. Pilots are to transmit their W015 and W008 MET reports with their W015 position Report to SHANWICK on HF

9.6.4 Eastbound flights are not required to make routine MET reports when flying in the SOTA.

Note: The UK Met Office provides meteorological watch and issues relevant SIGMET in the SOTA.

Special aircraft reports relating to meteorological conditions in SOTA received by Shannon ACC are forwarded to the UK Met Office and to SHANWICK.

**9.7 Secondary Surveillance Radar**

Aircraft intending to fly in the SOTA must be equipped with an SSR transponder capable of responding to Mode A interrogations with 4096 codes and Mode C interrogations with Automatic Pressure Altitude Reporting.

**9.8 Communications**

Communications between aircraft in the SOTA and SHANNON ACC are via VHF. The appropriate frequencies are listed in [ENR 2.1](#) unless otherwise advised by SHANWICK, Scottish or SHANNON ACC. Flights unable to contact SHANNON ACC on VHF should use the appropriate HF facility, addressing their message to SHANNON ACC.

**9.9 Communications Failure**

Flights experiencing radio communications failure should proceed according to the procedures in [ENR 1.1](#) General Rules, where appropriate, by procedures described in [ENR2.2 6](#)

**9.10 High Level Airspace (HLA)**

HLA shall be applicable in that volume of airspace between FL285 and FL420 within the Oceanic Control Areas of Santa Maria, SHANWICK, Reykjavik, Gander Oceanic and New York Oceanic. SOTA airspace is not included in NAT HLA. Details of HLA are contained in North Atlantic Operations and Airspace Manual (ICAO DOC 007) and Regional Supplementary Procedures.

SOTA has the same vertical extent as the SHANWICK OCA, and is bounded by lines joining successively the following points: N5100 W01500 – N5100 W00800 – N4830 W00800 – N4900 W01500 – N5100 W01500

**10. NORTHERN OCEANIC TRANSITION AREA (NOTA)**

**10.1 The Northern Oceanic Transition Area (NOTA) consists of that portion of the SHANWICK**

consists of that portion of the SHANWICK Flight Information Region/Oceanic Control Area with lateral and vertical limits specified at [Table 3](#):

**Table 3: Northern Oceanic Transition Area**

Name, Lateral limits, Vertical limits, Class of Airspace	Unit providing service	Call Sign. Languages. Area and conditions of use. Hours of Service	Frequency / Purpose	Remarks
1	2	3	4	5
<b>Northern Oceanic Transition Area (NOTA)</b> 5700N 01500W, 5700N 01000W, 5434N 01000W, 5400N 01500W, 5700N 01500W FL055/FL660 - Class A FL660/UNL - Class G	ATS SHANNON	SHANNON Control English H24	122.980MHz	

**10.2 Addressing of Flight Plan Messages**

Flight plans required for the NOTA should be addressed to the IFPS addresses EUCHZMFP and EUCBZMFP.

**10.3 Position Reports**

All designated points on the NOTA boundary are compulsory position reporting points, unless otherwise advised by SHANNON ACC.

**10.4 Oceanic Clearance Procedures**

Requirements regarding requests for oceanic clearances, detailed above, [ENR 2.2 4.2](#) and or [ENR2.2 7](#) should be complied with.

**10.5 Met Reporting Procedures in NOTA**

10.5.1 Pilots of aircraft in the NOTA are required to comply with the MET reporting procedures in ICAO DOC 8896 Chapter 7 "Aircraft Observations and Reports".

10.5.2 If the aircraft is designated to report meteorological information, the pilot will be advised by the inclusion of the phrase "SEND MET REPORTS" in the clearance message.

10.5.3 Westbound North Atlantic (NAT) Random flights and NAT Oceanic Track System (OTS) flights, designated as MET reporting flights, are to treat W010 as a mid-point and W015 as a designated Reporting point. Pilots are to transmit their W015 and W010 MET reports with their W015 position Report to SHANWICK on HF

10.5.4 Eastbound flights are not required to make routine MET reports when flying in the NOTA.

Note: The UK Met office provides meteorological watch and issues relevant SIGMET in the NOTA.

Special aircraft reports relating to meteorological conditions in NOTA received by SHANNON ACC are forwarded to the UK Met Office and to SHANWICK.

**10.6 Secondary Surveillance Radar**

Aircraft intending to fly in the NOTA must be equipped with an SSR transponder capable of responding to Mode A interrogations with 4096 codes and Mode C interrogations with Automatic Pressure Altitude Reporting.

**10.7 Communications**

Communications between aircraft in the NOTA and SHANNON ACC are via VHF. The appropriate frequencies are listed in [ENR 2.1](#) unless otherwise advised by SHANWICK, Scottish or SHANNON ACC. Flights unable to contact SHANNON ACC on VHF should use the appropriate HF facility, addressing their message to SHANNON ACC.

**10.8 Communications Failure**

Flights experiencing radio communications failure should proceed according to the procedures in [ENR 1.1](#) General Rules, where appropriate, by procedures described in [ENR 2.2 6](#)

**10.9 High Level Airspace (HLA)**

The HLA shall be applicable in that volume of airspace between FL 285 and FL420 within the Oceanic Control Areas of Santa Maria, SHANWICK, Reykjavik Oceanic and New York Oceanic.

Parts of the SHANWICK OCA are designated as the Shannon Oceanic Transition Area (SOTA) and the Northern Oceanic Transition Area (NOTA). NOTA airspace is included in the NAT HLA and hence NAT HLA airspace requirements are still applicable from FL285 to FL420 in NOTA. However, SOTA is not included in the NAT HLA. Therefore flights within SOTA routeing such that they are subject to an Oceanic Clearance, are required to be NAT HLA MNPS Approved.

NOTA has the same vertical extent as the SHANWICK OCA and is bounded by the lines joining successively the following points. N5400 W01500 - N5700 W01500 - N5700 W01000W - N5434 W01000 - N5400 W01500

NOTA airspace is included in MNPS Airspace. Details of HLA MNPS Operations and Procedures are contained in North Atlantic Operations and Airspace Manual (ICAO DOC 007) MNPS Operations Manual, and Regional Supplementary Procedures (DOC 7030).

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