

Brecon (BCN) DVOR ACP – Stage 2

Stakeholder Evidence for Stage 2 – as summarised in Annex F of Stage 2 Documentation

Stakeholder list and roles

Name	Email Address	Role
[REDACTED]	[REDACTED]	General Manager, Cardiff Airport
[REDACTED]	[REDACTED]	Airspace Change Specialist, NATS
[REDACTED]	[REDACTED]	Swanwick Development ATCO, NATS
[REDACTED]	[REDACTED]	Procedure Designer, NATS
[REDACTED]	[REDACTED]	OCA Manager and Blue Watch Manager, NATS Cardiff
[REDACTED]	[REDACTED]	General Manager, Bristol Airport
[REDACTED]	[REDACTED]	ATM Development ATCO, NATS
[REDACTED]	[REDACTED]	Procedure Designer Project Manager, NATS
[REDACTED]	[REDACTED]	ATC Operations Support Manager, Bristol Airport

Email exchanges with Bristol and Cardiff Airports

- 1) Email with Bristol and Cardiff Airports; prior to NATS/ CAA Assessment Meeting for BCN DVOR (06/07/20)

From: [REDACTED]
Sent: 06 July 2020 16:49
To: [REDACTED]
Cc: [REDACTED]
Subject: BCN DVOR - en-route dependency removal

Hello all

I hope you're all well and keeping safe (and busy) in these strange and frustrating times.

Just to let you know that [REDACTED] but that we have a CAA Case Officer for the BCN DVOR Removal.

We have an Assessment Meeting lined up for the 16th July and the current plan is to make the changes in May 2021 – if we can bring it forward to February 2021 we certainly will do.

The plan at the moment is to RNAV the two STARS that route via BCN to CDF & BRI and to RNAV the CDF and BRI Holds at the very minimum – this will remove/reduce your dependency on these two NDBs. If we are going to RNAV the little used 1E we may as well do the 1A but I have asked the

Swanwick Development Team if they want us to RNAV the 1C or whether they will do that as part of their work when they resume after CV19. With regard to the 2D this is still up for discussion – certainly we would like to truncate them – I know everyone said leave as they are but at the end of the day they are NERL procedures albeit they are in the AD section of the AIP and it would certainly help if we could truncate them to start at different points to differentiate between the two airport ie Bristol start maybe at TIVER and Cardiff at ATWEL as an example. BHD seems a crazy place to start the STAR especially as there is no level restriction associated with it.

Another email re the STARs to follow shortly.

Will be in touch.

Cheers



Swanwick Development ATCO

2) Email with Bristol and Cardiff Airports; to discuss design options (06/07/20)

From: [REDACTED]

Sent: 08 July 2020 12:37

To: [REDACTED]

[REDACTED]

Cc: [REDACTED]

Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

[REDACTED]

Please see below

[REDACTED]



[REDACTED]

Swanwick Development ATCO

From: [REDACTED]

Sent: 08 July 2020 08:10

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi All,

Thank you all for the information.

RETSI 1B (BRI 1A), UMOLO 1B (BRI 1E), FIFAH 1B (BRI 1B), TIVER 1B (BRI 2D) and CPT 1B (BRI 1C) will be coded to end at BRI at FL70. I have asked Swanwick Development if they want us to do the BRI 1C as they have other plans/time scales now and with regard to the BRI 2D I will confirm where this should start and any levels associated with it.

FIFAH 1C (CDF 1B), RETSI 1C (CDF 1A), UMOLO 1C (CDF 1E), TIVER 1C (CDF 3D) and CPT 1C (CDF 1C) will be coded to end at CDF at FL70. I have asked Swanwick Development if they want us to do the CDF 1C as they have other plans/time scales now and with regard to the CDF 2D I will confirm where this should start and any levels associated with it.

[REDACTED] RE HOLD BRI: I will coordinate with [REDACTED] regarding the parameters of the hold. Can you confirm the lower and upper levels for this hold? (bearing in mind the upper level will have to be a minimum of FL70). OK so the Lower Level of the RNAV Hold will be FL70 as I think we have ascertained over recent exchanges – [REDACTED] do you have a view on an Upper Level limit?

[REDACTED]: RE HOLD CDF: As far as I can work out there is no RNAV hold at Cardiff the last leg in the coding table has a note 'Conventional Hold', just want to check I am not missing something? Can

you also confirm the lower and upper levels for this hold? (bearing in mind the upper level will have to be a minimum of FL70). OK so the Lower Level of the RNAV Hold will be FL70 as I think we have ascertained over recent exchanges – [REDACTED] do you have a view on an Upper Level limit?

Cheers

[REDACTED]



[REDACTED]
Procedure Designer

From: [REDACTED]
Sent: 07 July 2020 15:02
To: [REDACTED]
[REDACTED]
Cc: [REDACTED]
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi [REDACTED],

We were only half way through Stage 2A when the big pause came along; so no end point for the SIDs confirmed at the moment.

KR



[REDACTED]
GM Air Traffic Services
Bristol Airport

From: [REDACTED]
Sent: 07 July 2020 13:54
To: [REDACTED]
[REDACTED]
Cc: [REDACTED]
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Thanks [REDACTED]

In that case I think it best that we proceed as planned and design the RNAV STARs/Holds at BRI/CDF down to FL70 – your RCF procedures would/could remain unchanged until such time as the NDBs are removed – if CDF is staying that is fine too. Given that your ACP has likely slipped due CV19 I suspect you won't want to remove the BRI until such times as any new STARs are developed to new Holds you may be establishing?

On a related topic are you planning on your SIDs to the south ending at EXMOR or LAMAT (or neither)?

I suspect we shall all have to talk again wrt to the removal of the BCN DVOR by planned deadline of 31/12/22.

Cheers



Swanwick Development ATCO

From: 
Sent: 07 July 2020 12:03
To: 
Cc: 
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi 

That makes sense on the rationale. The work produced by  as part of the 5 year review does retain the RCF returning to the BRI/new RNAV overlay hold, so that will still be relevant for future consideration.

Re the BRI NDB itself, Bristol airport are currently sweating the asset with no intention of replacing it. Their plan is (was!) that it will become obsolete after our ACP has been concluded with new RNAV SIDs being produced. Clearly timeframes on this ACP have now slipped to the right which brings a risk.

Kind Regards



GM Air Traffic Services
Bristol Airport

From: 
Sent: 07 July 2020 11:50
To: 

Cc: 
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi all

Having looked at the AIP I think the heights at the CFD/BRI Holds are linked to you RCF procedures which state the minimum level to be at the CDF/BR as 2500ft and 3000ft respectively. Is this still relevant and appropriate? My understanding is that this could be still the case in the event of RCF –

they would just have to fly as per the procedure published in AD2.22 and not as per the revised STAR as this would only be down to FL70.

Both airports are 'fortunate' in that you don't have published Approach procedures in the event of no Radar Control – although I wonder whether the CAA might question what do you do in this event? So there would be no Discontinuity (DISCO) created by end the STAR at FL70 at BRI/CDF – which is a good thing!

If there is a plan to get rid of either the BRI and/or CDF NDBs entirely (not by this project) we could/would establish a 5LNC at the same location but this couldn't be done if the BRI/CDF were to continue to be used say for VFR traffic.

Nothing is ever as straightforward as it first appears!!



Swanwick Development ATCO

From: [REDACTED]
Sent: 07 July 2020 10:49
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi All,

If the STAR was below FL70 would that alter the ACP? i.e. would you now need to do consultation?

Cardiff have an RNAV hold so hopefully you can steal some of that work. It was included when we designed the RNAV procedures.

Cheers,



General Manager Cardiff, St Athan, Aberporth & The Ranges

From: [REDACTED]
Sent: 07 July 2020 10:35
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: DVOR Rationalisation - BCN STARs coded end levels

Hi [REDACTED],

I'll dodge the 70 question for the moment....

I note from correspondence with [REDACTED] that he is also working on an RNAV hold for Bristol, which is being included as part of the Bristol 5 year review. I just wanted to double check that you are all in conversation with each other too, to avoid duplicated effort and moreover ensure a consistent approach to coding.

Kind Regards

[REDACTED]


[REDACTED]
GM Air Traffic Services
Bristol Airport

From: [REDACTED]
Sent: 06 July 2020 16:50
To: [REDACTED]
[REDACTED]
Cc: [REDACTED]
Subject: FW: DVOR Rationalisation - BCN STARs coded end levels

Dear All

Are you able to provide some thoughts on the question below from NATS Design please?

Cheers

[REDACTED]


[REDACTED]
Swanwick Development ATCO

From: [REDACTED]
Sent: 06 July 2020 16:31
To: [REDACTED]
Cc: [REDACTED]
Subject: DVOR Rationalisation - BCN STARs coded end levels

Hi [REDACTED]

Hope all is well with you. I am re-starting the BCN work package that was started by [REDACTED] early this year.

The end of all the STARs are currently coded at 2500ft. Prior to this there are not many level restrictions; for instance CPT 1B (previously BRI 1C) has a level restriction at CPT of FL220 and no

other restriction until BRI. In this situation we would have to assess for obstacles for the entirety of the STAR. For the others assessment would need to be carried out from TIVER, UMOLO, TALGA and RILES. Assessing obstacles out to this distance would require a lot more obstacle data including AD Surveys from EGTE, EGTU, EGBS etc.

The holds at BRI and CDF are coded between 2500ft and FL100. It would be preferable that the end of the STARs be coded at a minimum level of FL70. Obstacle Assessment would then carried out on the two holds with only Bristol and Cardiff surveys required.

Can you let me know if coding BRI and CDF at FL70 for all the STARs is acceptable?

Thank you

Regards



Procedure Designer

3) Email with Bristol and Cardiff Airports; to discuss design options (13/07/20)

From: [REDACTED]

Sent: 13 July 2020 07:54

To: [REDACTED]

[REDACTED]

Cc: [REDACTED]

[REDACTED]

Subject: BCN DVOR Removal - Scope for the STAR Changes

Morning All

I hope you had a good weekend.

Last week I met with the Swanwick Development Team and we considered the viability of RNAVing the D & C STARs into your airports. We agreed then there was little point in changing these now only for them to change again in c2023. However, this morning I notice the SLP on the CDF 3D is defined by BCN and so in order to remove the en-route dependency from BCN we will need to RNAV the CDF 3D and if we are doing Cardiff then we may as well do Bristol. However we will not be doing the 1C STARs from CPT which will continue to be Conventional for the foreseeable.

I have asked Sector 6 controller [REDACTED] the following questions and your thoughts would be useful too:

- a) Is there any Level by restriction for Descent Planning that needs to be included on these STARs – it doesn't appear there is according to the current STAR Charts
- b) Would you want a Descent Planning Level imposed on the STAR? eg do some of them come across 'high' or have trouble descending?
- c) I note from the Mats Pt.2 that TINAN is common to both routeings but although TIVER is published on the STAR it does not form part of the routeing in the Mats Pt.2 – is there a reason for this?
- d) The SLP on the CDF 3D is 7.3nm before EXMOR; MULIT is 10nm before EXMOR – would it be appropriate to make MULIT the SLP? If not we would need to add another point 7.3nm before EXMOR
- e) Could the STAR into EGFF actually start at MULIT?
- f) Could the STAR into EGGD actually start at EXMOR? (the SLP into EGGD is EXMOR)

I appreciate in the past there has been a preference to level the STARs unchanged starting at BHD but what is the justification for such a long STAR?

On point (f) if the STAR to the BRI began at EXMOR it would be designated as EXMOR 1B: the two RNAV1 STARs that currently commence at EXMOR are incorrectly designated by their end fix and not their start fix as per ICAO. We would be happy to amend them as part of this work but then you would have 3 STARs all called EXMOR:

- 1) EXMOR 1B to BRI
- 2) EXMOR 1X(?) to BAXUN

3) EXMOR 1Y(?) to ADVED

Would this be acceptable or would you prefer the STAR to BRI to start at a different way point (TIVER or TINAN)?

Do you want us to re-designate the RNAV1 STARs correctly as part of this work?

Wrt the other STARs we plan to truncate the 1A to begin at AMRAL and amend the level at RILES to FL150 to the level confusion issue raised by [REDACTED] I attended whereby when they are descending FL160 AMRAL they then get given descent to FL150 but the FMS is showing not below FL160 at RILES as per the current STAR Chart. Please confirm this is acceptable?

As always – nothing is as straightforward as it first appears!!

You have my number!!

Cheers



[REDACTED]
Swanwick Development ATCO

4) Email from Bristol Airport; providing queries on current Holding procedure (23/09/20)

From: [REDACTED]
Sent: 23 September 2020 12:16
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: BCN DVOR Removal -CAA Queries

Hi [REDACTED]

Please see the response below answers in red.

- 1) Can you confirm what LHA2500 means? **Lowest Holding Altitude 2500ft**
- 2) Is it Lowest Holding Altitude 2500ft by any chance? **Refer to point 1**
- 3) Would/do you hold IFR traffic down at those sort of levels? **We would not routinely hold at these lower levels. During the [REDACTED], there would have been an increase in holding at lower levels due to the airport accepting instrument training. This is an unusual occurrence and in 'normal times', instrument training is not normally permitted at Bristol. Additionally, traffic may hold at a lower level in the event of inclement weather and following a go-around, the procedure requires a turn back to the BRI at 3000ft. However, traffic would not then be routinely held at 3000ft as it would preclude IFR departures**
- 4) If you do hold IFR (or any other) traffic below 7000ft for any reason can you advise roughly how often this happens and whether RNAVing the Hold & STARs and ending the STAR at FL70 as proposed will result in any change to this behaviour in terms of the levels you may hold at below 7000ft or the frequency of doing so? **Traffic would routinely be held at the BRI at min stack (FL070 or FL080 normally). As mentioned in point 3, Bristol does not normally accept IFR training traffic and when it does, holding at the BRI is not allowed (in normal times). In addition, point 3 details when aircraft may hold at lower levels in the event of a go-around due weather etc. RNAVing the Hold and STARs and ending the STAR at FL070 as proposed will not change any behaviour in terms of the levels we hold at below 7000ft or the frequency of doing so.**

Let me know if there's any further questions?

Regards

[REDACTED]



[REDACTED]
Operations Support Manager – Bristol Airport

5) Email from Cardiff Airport; providing queries on current Holding procedure
(23/09/20)

From: [REDACTED]
Sent: 24 September 2020 12:37
To: [REDACTED]
Subject: RE: BCN DVOR Removal -CAA Queries -Cardiff

Hi [REDACTED]

The answers as requested for Cardiff CDF hold

- 1) Can you confirm what LHA2500 means?
- 2) Is it Lowest Holding Altitude 2500ft by any chance? **Cardiff LHA is 3000 feet**
- 3) Would/do you hold IFR traffic down at those sort of levels? **Regularly at 4000 if there is no other traffic. Cardiff has a lot of training traffic and it is usual to hold these aircraft below min stack of FL70 ie 4000, 5000, 6000 depending on departures.**
- 4) If you do hold IFR (or any other) traffic below 7000ft for any reason can you advise roughly how often this happens and whether RNAVing the Hold & STARs and ending the STAR at FL70 as proposed will result in any change to this behaviour in terms of the levels you may hold at below 7000ft or the frequency of doing so? **Holding below FL70 for training aircraft only happens regularly. Commercial aircraft normally hold above FL70. No change to operating procedures.**

Hope that helps and if you need any clarification please don't hesitate to contact me

All the best,

[REDACTED]



[REDACTED]

OCA Manager and Blue Watch Manager
NATS Cardiff Airport