

**IAA: Transition Altitude (TA) Consultation - Commonly Asked Questions & Answers**

**December 2015**

1	Why is IAA engaging in consultation?	A harmonised Transition Altitude (TA) of 18,000ft is proposed with the intention of enhancing efficiency in Irish airspace, through standardisation of airspace and altimeter setting procedures. As an aviation stakeholder you may be affected by this change and therefore you are being invited to provide comment and feedback on the proposal.
2	Why does the current system have to change?	The IAA is aligning with the UK in implementing a TA simultaneously.
3	This proposal will mean that pilots flying below 18,000ft could be on different pressure settings. How will safety be impacted by the raising of the TA?	Within Controlled Airspace, ATC will manage the altimeter settings of aircraft to ensure that flights remain separated. Class G airspace may be impacted by the lowering of the base of controlled airspace. Additionally aircraft in Class G airspace may be utilising a local (aerodrome) QNH value or an Altimeter Setting Region (ASR) setting as advised by ATC.
4	Why 18,000ft as TA?	A TA of 18,000ft reflects IAA alignment with the UK. Additionally, for the commercial aviation industry, the preference was for the TA to be as high as possible so that the requirement for aircrew to select a different QNH is taken away from the busy time immediately after take-off or when preparing to land. 18,000ft appears to provide the optimal operational balance.
5	As a commercial turboprop pilot I routinely fly above FL 75 but below FL180, therefore I select 1013.2 hPa for the cruise phase of flight. Changing to a TA of 18,000ft means that I'll have to change QNH several times on route. How will this be beneficial to me?	The TA project recognises that not all stakeholders will benefit from a raised TA. However, a higher TA will enable more efficient flight, with more continuous climbs and descents, particularly in congested TMA airspace. The benefits of a more efficient airspace system mean that considerable improvements can be made in fuel burn and therefore also environmental impact.
6	How will you assure safe separation of crossing traffic between controlled and uncontrolled airspace?	The TA CONOPs includes procedures to ensure the safety of crossing traffic in relation to traffic operating in the airways system. Procedures will also ensure that crossing traffic operating between controlled and uncontrolled airspace will remain separated from all known traffic which could potentially be in conflict, even if operating on a different QNH. Controllers will therefore ensure that crossing traffic remains separated from all known traffic at all times.
7	How will this change affect the calculation of the Transition Level?	This change does not affect the calculation of the Transition Level. However, a recent ICAO amendment means that the Transition Level is now calculated as the lowest Flight Level which provides at least 1000ft separation above the Transition Altitude.
8	What happens if a stakeholder query requires consideration of the impact on the project at a Functional Airspace Block (FAB) level?	The UK and Ireland have been in constant contact regarding all elements of the TA project. Should a response require the input of both countries as elements of the same FAB, the query will be considered jointly by the National Supervisory Authorities (NSAs), Air Navigation Service Providers (ANSPs) and/or Military of both countries before a response is issued.

9	What is the rest of Europe doing about it?	EASA established a HETA Rulemaking Group to determine whether or not to regulate on the issue of a harmonised TA across Europe and if so, at what level. The HETA Group determined there should be no regulatory intervention, although EASA should issue guidance to States wishing to change their TA in the future.
10	When will the change take place?	A decision will not be taken on an implementation date until after this consultation has been completed.
11	How much time will I have to prepare for the change?	Following responses from consultation, the TA project will ensure that stakeholders have sufficient time to prepare for implementation.
12	As a non-state aerodrome, who will pay for the changes I have to make to my systems and documents and for the training I need to provide to my staff?	The costs associated with the introduction of a TA for non-state aerodromes are expected to be minimal. The IAA will engage with non-state aerodromes as heretofore in updating LOAs to take application of the TA into account. A separate project is being progressed to assist non-state airports in updating IFPs at minimal cost. More detail on this project will issue at a later date.
13	As an aerodrome, what is the effect on my promulgated aerodrome instrument procedures and AIP entries?	There is a requirement to amend a significant number of charts, including all SID/IAP charts, to reflect the new TA. In many instances this will simply involve amendment of the TA annotation at the top of the chart and any background levels on the chart. In these instances AIS will be requested to make an administrative change to the chart with no cost to the aerodrome. A separate project is being progressed to assist non-state airports in updating IFPs at minimal cost. More detail on this project will issue at a later date.
14	I'm at a regional airport and have connectivity with the en-route controlled airspace structure. How will my interface with the en-route ANSP be affected?	In the same way as today, the interface between the en-route and regional airports will be the subject of a letter of agreement between those organisations, derived through their own internal SMS process and subject to oversight by IAA SRD.
15	Why does the new Altimeter Setting Region (ASR) system rely on actual QNH rather than the lowest forecast QNH?	The ASR value will be based on actual QNH issued by MET Eireann at stations in Dublin, Shannon and Donegal.
16	Why do we need Altimeter Setting Regions (ASRs) at all?	At an early stage in the project, the TA project team determined that ASRs would be necessary to enable their ANSPs to ensure separation between the aircraft for which they are responsible. Subsequently, the design of ASRs was adapted to ensure that ASR boundaries were consistent regardless of the type of airspace. Whilst it is recognised that operators outside Class C will not necessarily use the ASR QNH, it was felt important for en-route traffic to have the option to apply an appropriate pressure datum, especially when the QNH from an adjacent aerodrome is not available.

17	Why doesn't the Altimeter Setting Region (ASR) QNH take account of QNH changes in a Special Weather Report (SPECI), the same as the source aerodrome QNH would?	ASR QNHs will normally only be issued at half hourly intervals so as to reduce the impact on pilots and controllers of extra RTF calls to update it as a result of a Local Special Report or 'SPECI'. However, on the rare occasions that an aerodrome QNH changes by 2hPa within a half hour period, the relevant ASR QNH will be updated and pilots will be advised of the new value.
18	Why is the Altimeter Setting Region (ASR) not named after the source of the QNH?	An aerodrome QNH is derived from the aerodrome METAR, however this can be updated by a Local Special Report or 'SPECI'. As it is not proposed to routinely use SPECIs to update the ASR QNH, there was the potential for a difference to exist between the aerodrome QNH and the associated ASR QNH. Therefore, to avoid confusion, the project developed a set of principles to provide guidance on ASR naming.
19	Why have those names been picked for the Altimeter Setting Regions (ASRs)?	Generally, the names chosen for ASRs have some form of link with the geographical area which they encompass, i.e. LENSTA, CONNAT, MUNSTA. (See: CONOPS)
20	How will I get to know what the latest Altimeter Setting Region (ASR) values are?	An ASR bulletin containing the altimeter setting value for each ASR will be issued every 30 minutes.
21	When the forecast is indicating that pressure will be changing rapidly, what information will be available to update pilots and controllers?	A highlight will be included in the half-hourly Altimeter Setting Region (ASR) bulletin which will indicate when the variance between the Nominated Altimeter Setting Aerodrome or Station (NASAS) and the rest of the ASR is 6hPa or more.
22	Will an alert be provided when there is: i) a change of 2hPa during a half hour period ii) a large pressure gradient across an ASR iii) very low pressure which means that FL200 will not be separated from 18,000ft?	The half-hourly ASR bulletin will highlight the following:  i) At the NASAS, when a change of 2hPa or more is forecast to take place in the next 30 minutes. ii) When the variance between the NASAS and the rest of the ASR is 6hPa or more. iii) When the pressure forecast at the NASAS is less than 959hPa.
23	In Class G airspace I regularly fly a considerable distance across the(ASR)regions. Will it be possible to use the QNH from local aerodromes closer by?	Yes, in Class G airspace the pressure of local aerodromes can be used when flying en route. Once 40nm from the aerodrome, it is recommended that the pressure is updated to that of a closer aerodrome.
24	What happens if a METAR is not provided from one of the Nominated Altimeter Setting Aerodromes or Stations (NASAS)?	Forecast QNH will be used in such circumstances.
25	Which QNH will be used to define the base of controlled and the tops of Danger Areas? How will the use of the Altimeter Setting Region (ASR) QNH affect the vertical definition of airspace reservations?	The promulgated ASR QNH will be the altimeter setting value used to define the upper and lower boundaries of en route controlled airspace below the CTA. However, the upper and lower boundaries of CTRs and CTAs associated with an aerodrome will be based on the aerodrome QNH of the controlling authority. The tops of Danger Areas will continue to be defined above mean sea level.

26	Why don't we define all airspace reservations on the Altimeter Setting Region (ASR) QNH?	In simple terms, it's not possible to define all airspace reservations on the ASR QNH datum because of the effects of pressure variance within an ASR. There are a number of factors which affect the degree of pressure variance but key amongst these is distance. Specifically, the distance between the point where the pressure is measured, to the feature that is being overflown; thus, the further you are from the point where the pressure is measured, the greater the likelihood of a difference or 'gradient' between the two pressures and the greater the magnitude of that difference. Unfortunately, typically, there is no means of providing an altimeter setting datum specifically for these reservations. The TA Project has undertaken a significant amount of research into historical meteorological activity and the design of airspace reservations to develop a proposal that was considered acceptable by all stakeholders. The solution proposed by the State Project team is to require flight crews and ATC providers to add a correction to any terrain, vertical obstruction or the depicted top altitude of an airspace reservation, where the upper vertical limit is defined as above mean sea level. The magnitude of this correction is dictated by known variance within an ASR where an ASR QNH value is utilised.
27	What will be the effect on semi-circular cruising levels in Class G airspace?	There is no effect; where Flight Levels are currently utilised, these will be converted to altitudes, e.g. FL80 will become 8,000ft below the TA.
28	Why are we allowing nominal vertical separation? How is this safe?	The UK has undertaken a significant volume of research to define, develop and validate the nominal Vertical Separation Minima (VSM) concept. This work details a conceptual safety argument for the use of nominal VSM, which it is anticipated will be adopted by the CAA within a CAA Policy Statement. The IAA will separately assess the safety argument for cross-border and internal Nominal VSM criteria. However, in simple terms, the application of a QNH tolerance between flights exploits known 'allowances' within the 1,000ft vertical separation minima that was defined by ICAO in 1958 and was designed to take into account known inaccuracies in altimeters, aircraft level keeping etc. The advent of more modern and accurate systems on board aircraft means that we are able to accept minor altimeter setting variances between flights for short periods of time, in order to reduce workload for pilots and controllers.
29	Will there be more controlled airspace as a result of this change?	This has yet to be decided and defined.
30	Will new RTF phraseology be required?	No new RTF phraseology will be required to implement a TA of 18,000 ft. However, in certain sectors and phases of flight there may be an increase in the RTF load for both pilots and ATS personnel; for example, the increased volume of flights operating on altitudes will see an increased number of lengthy transmissions.

31	What are ATC units expected to do as part of implementation?	ATC units will be expected to make themselves fully aware of all elements of the TA project in terms of its likely impact on their operations. ATC units will be expected to ensure that their staff are sufficiently trained and that their systems and documentation are updated and approved prior to implementation.
32	What will pilots be expected to do as part of implementation?	Pilots will be expected to make themselves fully aware of any elements of the TA project which are likely to impact on their method of operation. They should study the IAA CONOPs to understand the nature of the changes being made.
33	This could be more complicated for GA pilots as they now have to add additional height onto the heights/altitudes indicated on the chart. This could increase the workload in a single pilot aeroplane if there are en-route changes to be made. How do you propose to advise GA pilots of the changes?	The changes will be communicated to GA pilots in as many forums as possible and through documentation when the project moves to operational implementation.
34	Will the PPL syllabus/exams/training be altered to accommodate these changes?	The PPL syllabus/training and exams will be amended to reflect any changes brought about by a raised TA