

# [ATSA.ACT] Published ATS airspace - activation or deactivation - decoding

## Text NOTAM Production Rules

This section provides rules for the automated production of the text NOTAM message items, based on the AIXM 5.1 data encoding of the Event. Therefore, AIXM specific terms are used, such as names of features and properties, types of TimeSlices, etc:

- the abbreviation **ASE.BL.** indicates that the corresponding data item must be taken from the **Airspace BASELINE**, which is valid at the start time of the Event;
- the abbreviation **ASE.TD.** indicates that the corresponding data item must be taken from the **Airspace TEMPDELTA** that was created for the Event.
  - Important note: *According to encoding rules for ATSA.ACT, the TEMPDELTA might also include AirspaceActivation elements that have been copied from the BASELINE data for compliance with the AIXM Temporality rules. The current practice is to not include such static information in the NOTAM text. Therefore, all AirspaceActivation that have an associated annotation with purpose=REMARK and the text="Baseline data copy. Not included in the NOTAM text generation" shall be excepted from the text NOTAM generation algorithm!*

## Several NOTAM possible

Some ATS airspace are established in order to protect flights to/from airports. Depending on size and/or purpose, they serve one or more airports. There are special provision in the OPADD (v4.0, section 2.3.9.2) with regard to the NOTAM that need to be issued in order to ensure that the NOTAM appear correctly in the relevant en-route and airport Pre-Flight Information Bulletins (PIB).

For the activation of an ATS airspace, it is expected that the FIR(s) and eventually the airport(s) for which a NOTAM is required to be issued have already been predefined in the application. It is recommended that the application suggests the list of airports for which a NOTAM is required, but the operator is allowed to take a final decision. The Event has an explicit association to AirportHeliport feature(s) as defined in ER-05

The rules for the "first NOTAM" are indicated below, for any additional NOTAM with scope A, refer to "[several NOTAM possible](#)" section.

### Item A

The item A shall be generated according to the geographical location of the Airspace as follows:

- If BL.type=CTR, TMA or ATZ, then:
  - if a single NOTAM is generated, its item A shall get the value ASE.BL.designator. It is assumed that CTR, TMA or ATZ has the same ICAO designator as the main airport within the airspace;
  - if several NOTAM are generated, then each shall get in item A the value of the AirportHeliport.locationIndicatorICAO as pre-defined in the application;
- Otherwise, item A shall contain the ICAO code of the overlaying FIR in which the area (CTA, OTA , UTA , etc.) is located for the largest part of its horizontal projection.

### Item Q

Apply the common NOTAM production rules for item Q, complemented by the following specific rules for this particular scenario:

#### Q code

The following mapping shall be used:

<i>ASE.TD.AirspaceActivation values</i>	<i>Corresponding Q codes</i>
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a unique ASE.BL.AirspaceActivation with status=INACTIVE	<b>ASE.BL.type</b>	<b>code</b>
	CTR	QACCD
	ADIZ	QADCD
	CTA	QAECD
	FIR	QAFCD
	UTA	QAHCD
	OCA	QAOCD
	TMA	QATCD
	ADV	QAVCD
	UDAV	QAVCD
	ATZ	QAZCD
	RAS	QXXXX
	any other	QXXCD
at least one ASE.BL.AirspaceActivation with status=ACTIVE	<b>ASE.BL.type</b>	<b>code</b>
	CTR	QACCA
	ADIZ	QADCA
	CTA	QAECA
	FIR	QAFCA
	UTA	QAHCA
	OCA	QAOCA
	TMA	QATCA
	ADV	QAVCA
	UDAV	QAVCA
	ATZ	QAZCA
	RAS	QXXXX
	any other	QXXCA

## Scope

For each NOTAM that is generated:

- If Item A contains the designator of one (or more) FIR, insert E.
- If item A contains the ICAO code of an airport, then insert AE for the first such NOTAM and value A for the rest of the NOTAM.

## Lower limit / Upper limit

Apply the common rules for {{Lower limit / Upper limit}}

In case of multiple sectors affected by activation/deactivation, the lowest and highest values shall be considered.

## Geographical reference

Calculate the centre and the radius (in NM) of a circle that encompasses the whole ATS airspace. Insert these values in the geographical reference item, formatted as follows:

- the set of coordinates comprises 11 characters rounded up or down to the nearest minute; i.e. Latitude (N/S) in 5 characters; Longitude (E/W) in 6 characters. The radius consists of 3 figures rounded up to the next higher whole Nautical Mile; e.g. 10.2NM shall be indicated as 011.

See also the Note with regard to the risk that the circle/radius does not encompass the whole area, as discussed in the {{Location and radius}} common rules for the NOTAM text generation.

**Items B, C and D**

Items B and C shall be decoded following the common production rules.

Item D shall be left empty. If at least one ASE.TD.activation.AirspaceActivation.timeInterval exists (the Event has an associated schedule), it shall be decoded in item E.

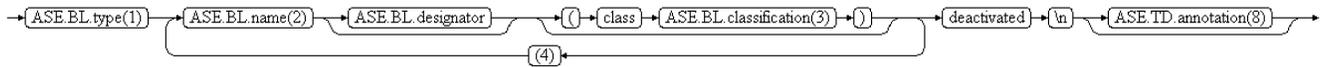
**Item E**

One of the following patterns should be used for automatically generating the E field text from the AIXM data:

**De-activation**

If ASE.TD.AirspaceActivation contains a single ASE.BL.AirspaceActivation and this one has status=INACTIVE

template\_deactivation



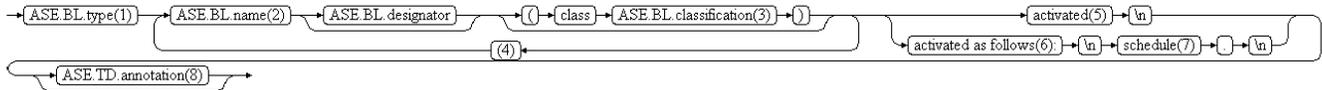
**EBNF Code**

```
template_deactivation = "ASE.BL.type(1)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}] {"(4)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}]} "deactivated" "\n" ["ASE.TD.annotation(8)"].
```

**Activation (eventually with schedule)**

If ASE.TD.AirspaceActivation contains at least one ASE.BL.AirspaceActivation with status=ACTIVE

template\_activation



**EBNF Code**

```
template_activation = "ASE.BL.type(1)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}] {"(4)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}]} ("activated(5)" "\n" | "activated as follows(6):" "\n" "schedule(7)" "\n") \n ["ASE.TD.annotation(8)"].
```

Reference	Rule
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(1)	<p>The area type shall be included according to the following decoding table:</p> <table border="1"> <thead> <tr> <th><b>ASE.BL.type</b></th> <th><b>Text to be inserted in Item E</b></th> </tr> </thead> <tbody> <tr><td>CTA</td><td>"CTA"</td></tr> <tr><td>CTA_P</td><td>"CTA part"</td></tr> <tr><td>UTA</td><td>"UTA"</td></tr> <tr><td>TMA</td><td>"TMA"</td></tr> <tr><td>CTR</td><td>"CTR"</td></tr> <tr><td>OCA</td><td>"OCA"</td></tr> <tr><td>OTA*</td><td>"Oceanic Transition Area"</td></tr> <tr><td>SECTOR*</td><td>"ATS sector"</td></tr> <tr><td>SECTOR_C*</td><td>"collapsed ATS sector"</td></tr> <tr><td>RAS*</td><td>"regulated ATS airspace"</td></tr> <tr><td>ADIZ</td><td>"ADIZ"</td></tr> <tr><td>CLASS*</td><td>"airspace class"</td></tr> <tr><td>ADV*</td><td>"Advisory Area"</td></tr> <tr><td>UADV</td><td>"Upper Advisory Area"</td></tr> <tr><td>ATZ</td><td>"ATZ"</td></tr> <tr><td>HTZ*</td><td>"Helicopter Traffic Zone"</td></tr> <tr><td>FIR</td><td>"FIR"</td></tr> <tr><td>OTHER:TMZ</td><td>"Transponder Mandatory Zone"</td></tr> <tr><td>OTHER:RMZ</td><td>"Radio Mandatory Zone"</td></tr> </tbody> </table> <p>Note: the values marked with * are unlikely to occur in reality; they are provided for completeness sake.</p>	<b>ASE.BL.type</b>	<b>Text to be inserted in Item E</b>	CTA	"CTA"	CTA_P	"CTA part"	UTA	"UTA"	TMA	"TMA"	CTR	"CTR"	OCA	"OCA"	OTA*	"Oceanic Transition Area"	SECTOR*	"ATS sector"	SECTOR_C*	"collapsed ATS sector"	RAS*	"regulated ATS airspace"	ADIZ	"ADIZ"	CLASS*	"airspace class"	ADV*	"Advisory Area"	UADV	"Upper Advisory Area"	ATZ	"ATZ"	HTZ*	"Helicopter Traffic Zone"	FIR	"FIR"	OTHER:TMZ	"Transponder Mandatory Zone"	OTHER:RMZ	"Radio Mandatory Zone"
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OTHER:RMZ	"Radio Mandatory Zone"																																								
(2)	The name and designator (if applicable) of the area shall be included if present in the BASELINE data																																								
(3)	If ASE.BL has an associated AirspaceLayerClass, then insert the value of the AirspaceLayerClass.classification attribute in the following format: "(class X)" where X is the value of the AirspaceLayerClass.classification																																								
(4)	Insert ", " after every sector and "and" before the last entry																																								
(5)	Use this element if there exists a unique ASE.TD.AirspaceActivity and it has status=ACTIVE																																								
(6)	Use these elements if there exist more than one ASE.TD.AirspaceActivity (some with status=ACTIVE, some with status=INACTIVE)																																								
(7)	Collect all ASE.TD.activation.AirspaceActivation.timeInterval that are associated with ASE.TD.AirspaceActivation with status=ACTIVE and decode according to the general decoding rules for {{Item D, E - Schedules}}																																								
(8)	Annotations shall be translated into free text according to the common rules for annotations decoding.																																								

Note: *The objective is the full automatic generation, without human intervention. However, the implementers of the specification might consider reducing the cost of a fully automated generation by allowing the operator to fine-tune the text in order to improve its readability (with the inherent risk for human error, when re-typing is allowed).*

### Items F & G

Item F and item G shall be left empty.

Note: *Values for item F & G are only required for Navigation Warnings (QW) and Airspace Reservations (QR). Inclusion of applicable vertical limits in Item E) for changes of Airspace organisation (QA) can be considered, but is not applicable for this scenario as it does not cover modification of vertical limits.*

### Event Update

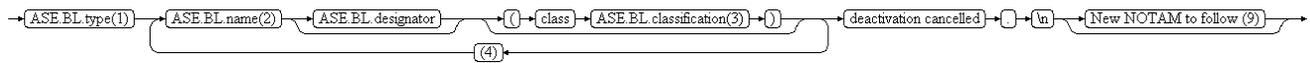
The eventual update of this type of event shall be encoded following the general rules for {{Event updates or cancellation}}, which provide instructions for all NOTAM fields, except for item E and the condition part of the Q code, in the case of a NOTAM C

**If a NOTAM C is produced**, then the 4th and 5th letters (the "condition") of the Q code shall be "CN", except for the situation of a "new NOTAM to follow, in which case "XX" shall be used.

The following pattern should be used for automatically generating the E field text from the AIXM data:

- De-activation cancelled: If ASE.TD.AirspaceActivation contains a single ASE.BL.AirspaceActivation and this one has status=INACTIVE

template\_deactivation\_cancel



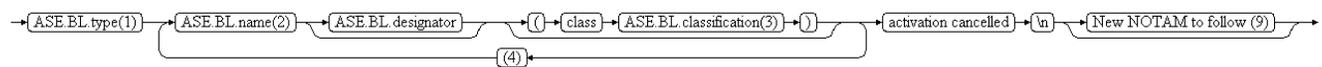
#### EBNF Code

```

template_deactivation_cancel = "ASE.BL.type(1)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"} {"(4)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}]} "deactivation cancelled" "." "\n"
["New NOTAM to follow (9)"].
  
```

- Activation cancelled: If ASE.TD.AirspaceActivation contains at least one ASE.BL.AirspaceActivation with status=ACTIVE

template\_activation\_cancel



#### EBNF Code

```

template_activation_cancel = "ASE.BL.type(1)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"} {"(4)" "ASE.BL.name(2)" ["ASE.BL.designator"] [{"(" "class" "ASE.BL.classification(3)" ")"}]} "activation cancelled" "\n"
["New NOTAM to follow (9)"].
  
```

Reference	Rule
(9)	<p>If the NOTAM will be followed by a new NOTAM concerning the same situation, then the operator shall have the possibility to specify "NEW NOTAM TO FOLLOW" and this text shall be appended at the end of item E of the NOTAM C.</p> <p>Note: in this case, the 4th and 5th letters of the Q code shall also be changed into "XX".</p>