

[SAA.NEW] Ad-hoc special activity area - creation (NOTAM)

Note: this scenario corresponds to two NOTAM Templates: "Ad-hoc PRD and TSA creation" and "Ad-hoc Navigation Warnings". Therefore, two production rules are included in this scenario.

On this page

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 Air space **BASELINE** that is created by the Event;

Several NOTAMs possible

Note that if an ad-hoc special activity area is located in the vicinity of one or more airports or affects more than one FIR, there are special provision in the OPADD (v4.1, section 2.3.9.3) 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 this purpose, explicit associations between the [Event](#) and one or more [AirportHelicopter](#) or [Airspace](#) may be coded.

The following rules shall be applied:

Event. concernedAirspace	Event. concernedAirportHelicopter	NOTAM to be generated
NIL	NIL	automatically identify the FIR(s) in which the area is located (geographical query) and produce a single NOTAM
assigned value(s)	NIL	produce a single NOTAM for all the FIR(s) identified
NIL	assigned value(s)	automatically identify the FIR(s) in which the area is located (geographical query). Produce a "first" NOTAM (scope AW) for one of the aerodromes associated with the Event and additional (scope A) NOTAM for each additional airport
assigned value(s)	assigned value(s)	Produce a "first" NOTAM (scope W) for all FIR and one of the aerodromes associated with the Event and additional (scope A) NOTAM for each additional airport

The NOTAM production rules provided below, unless specified otherwise, are applicable to the "first NOTAM" and the NOTAM containing one or more FIR in Item A. For any additional NOTAM with scope A, refer to "[several NOTAM possible](#)" section.

Item A

The item A shall be generated according to the general [production rules for item A](#) using the [Airspace\(s\)](#) with type FIR and/or the [AirportHelicopter](#) for which the NOTAM is issued.

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 for the "first NOTAM" and for the NOTAM containing one or more FIR in item A:

ASE.BL.type	ASE.BL.AirspaceActivation.activity	Corresponding Q code(s)
P	any (except MILOPS)	QRPCA
R	any (except MILOPS)	QRRCA
D	any (except MILOPS)	QRDCA

TSA	any (except MILOPS)	QRRCA or QRTCA
TRA	any (except MILOPS)	QRRCA or QRTCA
any	MILOPS	QRMLP
W	any	QRRCA
D-OTHER, A or OTHER	AERIAL_WORK, FIRE_FIGHTING, LASER, HI_RADIO	QRDCA
D-OTHER, A or OTHER	none specified	QRDCA
D-OTHER, A or OTHER	AIRSHOW	QWALW
D-OTHER, A or OTHER	SPORT, AEROBATICS	QWBLW
D-OTHER, A or OTHER	EXERCISE, NAVAL_EXER, TRAINING	QWELW
D-OTHER, A or OTHER	REFUEL	QWFLW
D-OTHER, A or OTHER	GLIDING	QWGLW
D-OTHER, A or OTHER	BLASTING	QWHLW
D-OTHER, A or OTHER	BALLOON	QWLLW
D-OTHER, A or OTHER	TOWING	QWJLW
D-OTHER, A or OTHER	MISSILES, AIR_GUN, ARTILLERY, FIREWORK,	QWMLW
D-OTHER, A or OTHER	PARACHUTE, PARAGLIDER, HANGGLIDING	QWPLW
D-OTHER, A or OTHER	CHEMICAL, NUCLEAR	QWRLW
D-OTHER, A or OTHER	GAS	QWSLW
D-OTHER, A or OTHER	UAV	QWULW
D-OTHER, A or OTHER	BIRD	QAFHX
D-OTHER, A or OTHER	OTHER:DEMOLITION	QWDLW
D-OTHER, A or OTHER	OTHER:CAPTIVE_BALLOON, OTHER:KITE	QWCLW
D-OTHER, A or OTHER	OTHER:ACFT_MASS_MOVEMENT	QWTLW
D-OTHER, A or OTHER	OTHER:ACFT_FORMATION	QWVLW
D-OTHER, A or OTHER	OTHER:VOLCANO	QWWLW
D-OTHER, A or OTHER	OTHER:MODEL	QWZLW
PROTECT	ACCIDENT, VIP	QROLP
OTHER	OTHER	QRACA or QWELW

Note:

- In the situations where two or more Q code alternatives are provided in the table above, the first one should be used as default in a data provider interface. The operator shall have the possibility to select an alternative one or even to change it completely (for example, by using "XX").

Scope

For each NOTAM that is generated:

- If Item A contains the designator of one (or more) FIR, insert W.
- If Item A contains the ICAO code of an airport, then insert AW.

However, more specific rules may be applied, depending on the split in NOTAM series, actual configuration of the FIR, etc. These have to be taken into consideration for each implementation

Lower limit / Upper limit

Apply the common NOTAM [production rules for Lower limit / Upper limit](#).

Geographical reference

Calculate the centre and the radius (in NM) of a circle that encompasses the whole special activity area. 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

These shall be decoded following the common NOTAM production rules for [start of validity](#), [end of validity](#) and [schedules](#).

If at least one [ASE.BL.activation.AirspaceActivation.timeInterval](#) exists (meaning that the Event has an associated schedule), then it shall be represented in item D according to the common NOTAM production rules for [Item D, E - Schedules](#). Otherwise, item D shall be left empty.

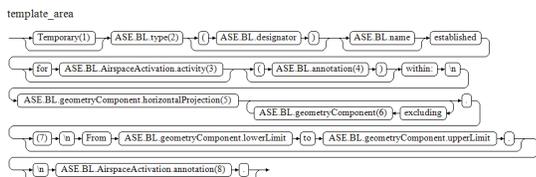
- **Important Note:** *timeInterval(s) that appear as child of [ASE.BL.activation.AirspaceActivation](#) with **status** equal-to 'INACTIVE' shall not be translated (because they were encoded for the completeness of the digital data encoding, see rule ER-04).*

Item E

Two patterns are possible for automatically generating the item E text from the AIXM data.

Item E for ad-hoc PRD, TSA area

This template shall be used when the [ASE.BL.type](#) has one of the following values: 'P', 'R', 'D', 'TSA', 'TRA', 'W', 'A', 'PROTECT'

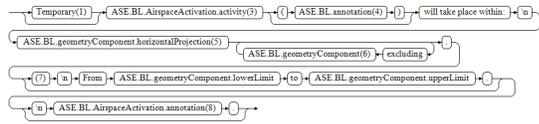


EBNF Code

Item E for ad-hoc navigation warnings

This template shall be used when the [ASE.BL.type](#) has a value different from: 'P', 'R', 'D', 'TSA', 'TRA', 'W', 'A', 'PROTECT'

template_nav_warning



EBNF Code

```
template_nav_warning = ["Temporary(1)"] "ASE.BL.AirspaceActivation.activity
(3)" ["(" "ASE.BL.annotation(4)" ")"] "will take place within:" "\n" \n
"ASE.BL.geometryComponent.horizontalProjection(5)" {excluding "ASE.BL.
geometryComponent(6)"} "." \n
["(7)" "\n" "From" "ASE.BL.geometryComponent.lowerLimit" "to" "ASE.BL.
geometryComponent.upperLimit" "."] \n
["\n" "ASE.BL.AirspaceActivation.annotation(8)" "."].
```

Reference	Data item (from coding scenario)	Rule																		
(1)	type	If ASE.BL.type is different than TSA and TRA insert the word "Temporary". Otherwise, ignore this branch.																		
(2)	type	The area type shall be included according to the following decoding table: <table border="1"> <thead> <tr> <th>ASE.BL.type</th> <th>Text to be inserted in Item E</th> </tr> </thead> <tbody> <tr> <td>P</td> <td>"Prohibited Area"</td> </tr> <tr> <td>R</td> <td>"Restricted Area"</td> </tr> <tr> <td>D</td> <td>"Danger Area"</td> </tr> <tr> <td>TSA</td> <td>"Temporary Segregated Area"</td> </tr> <tr> <td>TRA</td> <td>"Temporary Reserved Area"</td> </tr> <tr> <td>W</td> <td>"Warning Area"</td> </tr> <tr> <td>A</td> <td>"Alert Area"</td> </tr> <tr> <td>PROTECT</td> <td>"Protection Area"</td> </tr> </tbody> </table>	ASE.BL.type	Text to be inserted in Item E	P	"Prohibited Area"	R	"Restricted Area"	D	"Danger Area"	TSA	"Temporary Segregated Area"	TRA	"Temporary Reserved Area"	W	"Warning Area"	A	"Alert Area"	PROTECT	"Protection Area"
ASE.BL.type	Text to be inserted in Item E																			
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PROTECT	"Protection Area"																			

(3)	activity	<p>The activity code shall be translated into readable text, as indicated below.</p> <ul style="list-style-type: none"> • ACCIDENT => "flight accident site" • AD_TFC => "aerodrome traffic" • AERIAL_WORK => "aerial work" • AEROBATICS => "aerobatics" • AIR_DROP* => "air dropping" • AIR_GUN => "firing" • AIRSHOW => "air display" • ANTI_HAIL* => "anti hail missiles launch" • ARTILLERY => "artillery firing" • BALLOON => "ascent of balloon" • BIRD => "bird presence" • BIRD_MIGRATION* => "bird migration" • BLASTING => "explosives blasting" • CHEMICAL => "chemical hazard" • CROP_DUSTING => "crop spraying" • EXERCISE => "military exercise" • FAUNA* => "fauna protection" • FIRE_FIGHTING => "fire fighting" • FIREWORK => "fireworks" • GAS => "gas hazard" • GLIDING => "glider flying" • HANGGLIDING => "hang gliding" • HELI_TFC => "helicopter traffic" • HI_RADIO => "high power radio transmissions" • JET_CLIMBING* => "jet climbing" • LASER => "laser hazard" • MILOPS => "military operations" • MISSILES => "missile firing" • NATURE* => "nature protection" • NAVAL_EXER => "naval exercise" • NO_NOISE* => "noise prevention reasons" • NUCLEAR => "nuclear hazard" • OIL* => "oil hazard" • OTHER => "activity" • OTHER:ACFT_FORMATION => "formation flight" • OTHER:ACFT_MASS_MOVEMENT => "mass movement of acft" • OTHER:CAPTIVE_BALLOON => "captive balloon" • OTHER:DEMOLITION => "demolition with explosives" • OTHER:KITE => "kite activities" • OTHER:MODEL => "model flying" • OTHER:SAR => "SAR" • OTHER:SKY_LANTERN => "ascent of sky lanterns" • OTHER:VOLCANO => "significant volcanic activity" • PARACHUTE => "parachute jumping exercise" • PARAGLIDER => "paragliding" • POPULATION* => "population protection" • RADIOSONDE* => "radiosonde launching" • REFINERY* => "refinery hazard" • REFUEL => "air refueling" • SHOOTING* => "firing" • SPACE_FLIGHT => "space flight" • SPORT => "sporting activities" • TECHNICAL* => "technical activities" • TOWING => "banner/target towing" • TRAINING => "training activities" • UAV => "unmanned acft system activities" • ULM => "ultralight motorized acft activities" • VIP => "VIP protection" • VIP_PRES* => "head of state protection" • VIP_VICE* => "vice-head of state protection" • WATER_BLASTING* => "water blasting" <p><i>Note: The values marked with an asterisk * are unlikely to occur in practice, they are provided for completeness sake and to prevent undefined situations for the automatic creation of NOTAM.</i></p>
(4)	location note	<p>If specified, insert here only the ASE.BL.annotation that has propertyName="geometryComponent". Annotations shall be translated into free text according to the decoding rules for annotations.</p>
(5)	horizontal limit	<p>The GML encoding of the horizontalProjection (gml:Surface) shall be translated into human readable text, using latitude/longitude values.</p>

(6)	excluded airspace	If specified as a ASE.BL.geometryComponent with operation="SUBTR", insert here the designator and the type of the ASE.BL.geometryComponent.contributorAirspace. This requires interpreting the xlink:href value in order to recuperate the relevant data from the contributorAirspace BASELINE. If more than one airspace is excluded from the preceding horizontalProjection, then the word "and" shall be included before the second, third, etc. exclusion.
(7)	lower limit upper limit	Only for NOTAM with scope = A As a pure aerodrome NOTAM (scope A) does not allow the use of items F and G, information about the vertical extend is added in Item E.
(8)	note	Annotations shall be translated into free text according to the common rules for annotations decoding.

Note: The objective is to 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

Only for NOTAM with scope "W" or "AW"

The values in items F and G shall be formatted according to decoding rules for [Item E, F, G - vertical limits](#):

- insert in item F the value (including its reference and unit of measurement) of the ASE.BL.geometryComponent.lowerLimit;
- insert in item G the value (including its reference and unit of measurement) of the ASE.BL.geometryComponent.upperLimit.

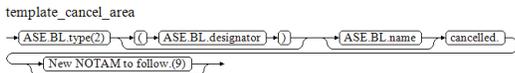
Event Update

The eventual update of this type of event shall be encoded following the general rules for [Event update 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.

Two patterns are possible for automatically generating the item E text from the AIXM data.

Cancellation of ad-hoc PRD, TSA area

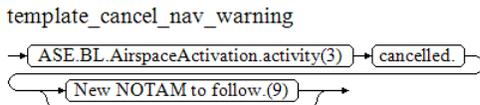


EBNF Code

```

template_cancel_area = "ASE.BL.type(2)" ["(" "ASE.BL.designator" ")"]
["ASE.BL.name"] "cancelled." \n
["New NOTAM to follow.(9)"].
  
```

Cancellation of ad-hoc navigation warning



EBNF Code

```
template_cancel_nav_warning = "ASE.BL.AirspaceActivation.activity(3)"  
"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>