NMD		EUROCONTROL
Document Title: **Evaluation of AUP/UUP via B2B with AMC Estonia**		Document Reference: EXTERNAL EVALUATIONS\B2B evaluations\Draft

Scenario_1 part A – Normal operation scenario 23/09/2015

<table>
<tr><td colspan="1">SC_1-PartA: Check DRAFT/ READY status, AUP change capability</td></tr>
<tr><td>

Objectives covered
- B2B-AUP-Obj_1.2 Correct data structure
- B2B-AUP-Obj_1.3 Completeness of information
- B2B-AUP-Obj_1.4 Correct data implemented in CACD
- B2B-AUP-Obj_2.1 Completeness of client updates
- B2B-AUP-Obj_3.1 AUP Timeline compliance
- B2B-AUP-Obj_3.2 AUP state

</td></tr>
<tr><td>

Context:
- Date in the scenario: 23.09.2015 (actual date and time)
- Prepare an AUP valid from WEF 24.09.2015 6:00 to UNT 25.09.2015 6:00
- A modification in the route structure has been made by NM on the AIRAC 404, so as to highlight changes and test the AIRAC switch. => not tested anymore, see section 2.2.

</td></tr>
<tr><td>

Operational instruction
1. AMC: Set up an AUP in INTENT status
   The AUP contained RSA EETSA1 from 14:50 to 17:50, associated CDR 1 on route L870 and Y267
2. AMC: Wait for the check 1:
3. AMC: Set the AUP to DRAFT
4. AMC: Wait for check 2-3 by NM
5. AMC: Set the AUP to READY
6. AMC: Wait for check 4 by NM
7. AMC: Set to DRAFT again and make some modification: **change the planning from12:50 to 17:50**
8. Set the status to READY
9. NM Publish the AUP

</td></tr>
<tr><td>

Expected results Items to be checked
1. NM: Check that in INTENT state, nothing is seen in NM systems => OK
2. NM: Check the DRAFT is visible => OK
3. NM: Check all the AUP matches the AMC request
    (in terms of requested RSA,CDR, and associated planning) =>OK
4. NM: check the status READY =>OK
5. Check the updates done on the AUP =>OK
6. AMC check the AUP is published =>OK
7. NM: Inform AMC the Test is complete and that they can delete the AUP

</td></tr>
<tr><td>

Findings/observation
All checks were positives.
No performance issues were identified. Once AMC Estonia issues their AUP, it is visible on NM systems within a couple of second.

</td></tr>
<tr><td>

Conclusion / way forward
All objectives associated to this scenario are validated in the case of AUP creation/update.

</td></tr>
</table>

Scenario_1 PartB: UUP change capability

SC_1-PartB: UUP change capability

Objectives covered
- B2B-AUP-Obj_1.2 Correct data structure
- B2B-AUP-Obj_1.3 Completeness of information
- B2B-AUP-Obj_2.1 Completeness of client updates
- B2B-AUP-Obj_3.3 UUP schedule compliance
- B2B-AUP-Obj_3.4 UUP Timeline compliance
- B2B-AUP-Obj_4 Adequate System performance

Context:
- Date in the scenario : 23.09.2015, 09:00 Brussels LMT
- Two **AUPs released** for 2 consecutive days: (checked SAT/X CIAM and SAT/X CIAM)
  - The AUP prepared during SC2-PartA (Valid WEF 24/09/2015 06:00 - Valid TIL 25/09/2015 06:00) is still valid
  - New NIL AUP was prepared before the beginning of this scenario for the next day and sent to NM Valid WEF 23/09/2015 06:00 - Valid TIL 24/09/2015 06:00)
- The scenario intended to simulate the period between 16:00 and 21:00 when it is possible to do UUPs on the current day and UUP-6 for the next day.
- According to the time of the scenario, CADF sets up a UUP-12 release time for the current day and a UUP-6 release time for the next day.

Operational instruction
1. AMC: Set an UUP for the current day (UUP-12)
2. AMC: Wait for check 1 by NM
3. AMC: Set an UUP for the next day (UUP-6)
4. AMC: Wait for check 2 by NM

Expected results
Items to be checked
1. NM: Check the UUP matches the AMC request (in terms of wanted CDR, RSA and planning) =>OK
2. NM: Check the UUP matches the AMC request (in terms of wanted CDR, RSA and planning) => Non OK
3. Check the system performance (Obj_4). Check the UUP arrives in a timely manner. =>OK
4. NM: Inform AMC the test is complete and that they can delete the AUP
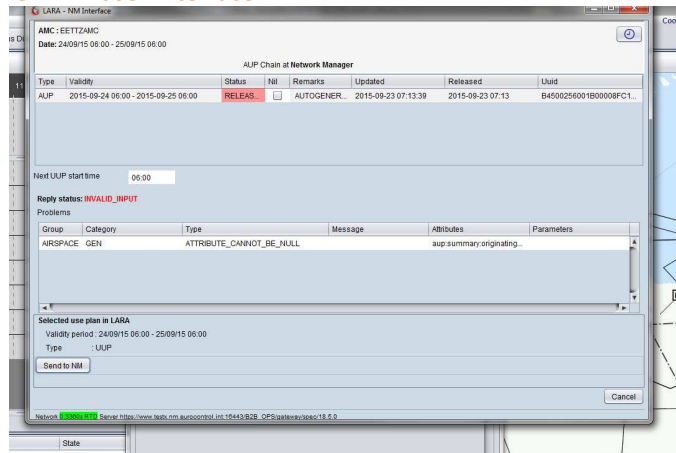
Findings/observation

- AMC Estonia tries several times to make a UUP-6 valid from 24th to 25th

  => error reported in the LARA log and on CUA log

  1.extract-7.15UTC-UUPOn24-25.txt

  => And on the LARA user interface

- AMC Estonia managed to release a UUP-12 valid from 23rd to 24th => successful as reported in the log => see extract of the log below.
- No performance issues were identified. Once AMC Estonia issues their UUP, it is visible on NM systems within a couple of second

Analysis
Technical viewpoint

In the UUP-6 for 24th to 25th, the B2B request generated by LARA misses the <originatingAupId>, while it is requested by B2B constraints (see below an extract of the B2B documentation)

- After investigation by LARA team, LARA would have in fact accepted a UUP as from 06:01 and not from 06:00.

Conclusion / way forward
- Objectives validated for the UUPs on the current day validated.
- A patch with correction will be issued so as to be able to issue UUP for the next day at 06:00 sharp (and other time clock sharp).

Actions
For LARA team to
- Correct the bug See Validation after "UUP bug" correction
- Provide evidence of correction
- Provide Estonia AMC with a patch that includes the bug correction.

NMD		EUROCONTROL
Document Title:		Document Reference:
Evaluation of AUP/UUP via B2B with AMC Estonia		EXTERNAL EVALUATIONS\B2B evaluations\Draft

Validation of the "UUP bug" correction

Findings/observation
Invalid_UUP_Exchange.xml   valid_UUP_Exchange.xml RE EST AMC LARA-NM - STATUS o • After applying the patch, it accepts to create the UUP in draft as from 6.00 sharp.
Analysis -
Conclusion / way forward • Objectives validated for the UUPs on the next day.

Scenario_2: Check error management

SC_2: Check error management
Objectives covered • B2B-AUP-Obj_5 Management of error and detection • B2B-AUP-Obj_6 Error recovery

Operational instruction
Executed by
    1. AMC: Set up an AUP in DRAFT containing an RSA with some overlap in the schedule.
    2. Set the AUP in READY state.
    3. Wait for check 1.
    4. Correct the schedule of the AUP.
    5. If the tool allows, AMC: Set up an AUP in Draft containing an RSA in the past.

Expected results
Items to be checked
    1. NM and AMC checks the response from the system
    2. NM: Inform AMC the Test is complete and that they can delete the AUP

Findings/observation • AMC Estonia tried to send an RSA with a planning containing some overlaps. The action was rejected by the software. • Then, AMC Estonia does actually see the error on the graphical interface and is able to easily notice it and correct it (modify the AUP).
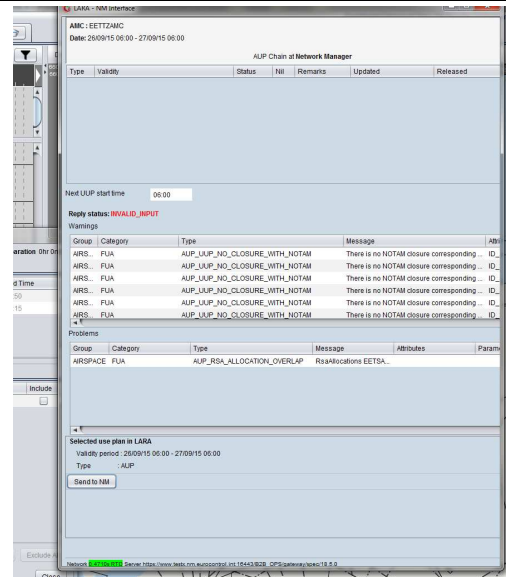
Analysis
The software (B2B constraint) prevents LARA to send to NM systems an erroneous schedule with overlaps: it rejects the AUP creation request.
<pre><status>INVALID_INPUT</status>
        <inputValidationErrors>
            <attributes/>
            <group>AIRSPACE</group>
            <category>FUA</category>
            <type>AUP_RSA_ALLOCATION_OVERLAP</type>
            <parameters/>
            <message>RsaAllocations EETSA2 must not overlap in applicability period or flRange with RsaAllocation
EETSA2</message>
 	
        </inputValidationErrors></pre>

Conclusion / way forward B2B-AUP-Obj_5 and B2B-AUP-Obj_6 validated.

Edition: 1.100

Scenario 3 Check FBZ management

SC_3: Check FBZ management

Objectives covered

- B2B-AUP-Obj_1.2 Consistent data structure
- B2B-AUP-Obj_1.2 Correct data structure
- B2B-AUP-Obj_1.3 Completeness of information
- B2B-AUP-Obj_1.4 Correct data implemented in CACD

Context:

- Date in the scenario 22.10.2015, 11.00 Brussels LMT
- FBZ (FPL Buffer Zone) are airspaces with one or several FUA restrictions associated. At least one FUA restriction must be associated to each FBZ selected in an AUP. Each FBZ may have default restriction(s) associated.
- As validated with AMC Estonia, the following behaviour is expected: the default restrictions associated to the FBZ are automatically included in the AUP upon the selection of the FBZ airspace.
- Prepare an AUP (Valid WEF 23/10/2015 06:00 - Valid TIL 24/10/2015 06:00) that contains all the FBZ airspaces under the responsibility of AMC Estonia.
    - TSA1Z
    - TSA2Z
    - TSA4Z
    - TSA7Z

Operational instruction
1. AMC: Set up the AUP in INTENT status containing the FBZs
2. AMC: Set the AUP to DRAFT
3. AMC: Wait for check 2-3 by NM
4. AMC: Set the AUP to READY
5. AMC: Wait for check 4 by NM
6. NM Publish the AUP

Expected results
Items to be checked
1. NM: Check all the AUP matches the AMC request (in terms of requested FBZ, and associated planning **=> OK**
2. NM: check the status READY**=> OK**
3. NM: Inform AMC the Test is complete and that they can delete the AUP

Findings/observation
- As showed on the print screen taken during the OPT, the expected -behaviour is observed:
- The default restrictions associated to the FBZ are automatically included in the AUP upon the selection of the FBZ airspace.

- AUP 23/10-24/10 – TSA1Z TS2Z TSA4Z TSA7Z on LARA client side and on CHMI (CIAM) :

- AUP 26/10-27/10 TSA7Z,TSA8,TSA9 – all with restriction on LARA client and on CHMI

- AUP 28/10 – 29/10 TSA 1, 14, 2, 4, 5, 6, 7, 8, 9 with CDR expansion on LARA client and CHMI

Analysis
-
Conclusion / way forward
The software behaviour and capability regarding the management of FBZ comply with what has been agreed with AMC Estonia.

Scenario 4: check FBZ Handling with missing or wrong restriction

SC_4: Check FBZ Handling with missing or wrong restriction

Objectives covered

- B2B-AUP-Obj_5 Management of error and detection
- B2B-AUP-Obj_6 Error recovery

Context:

- Date in the scenario 22.10.2015, 11.00 Brussels LMT
- FBZ (FPL Buffer Zone) are airspaces with one or several FUA restrictions associated. At least one FUA restriction must be associated to each FBZ selected in an AUP. Each FBZ has a selection of default restriction associated.
- As validated with AMC Estonia, the following behaviour is expected: the default restrictions associated to the FBZ are automatically included in the AUP upon the selection of the FBZ airspace.
- Prepare an AUP (e.g. Valid WEF 27/10/2015 06:00 - Valid TIL 28/10/2015 06:00) that
  - Does not contain any restrictions
  - Contains default restrictions that does not match the CACD default ones

Operational instruction
4. AMC: Set up the AUP in INTENT status containing the FBZ
5. AMC: Set the AUP to DRAFT
6. AMC: Wait for check 2-3 by NM
7. AMC: Set the AUP to READY
8. AMC: Wait for check 4 by NM
9. NM Publish the AUP

Expected results
Items to be checked
10. NM and AMC checks the response from the system (appropriate message from B2B : INVALID_INPUT / AUP_FBZ_ALLOCATION_MUST HAVE FUA ALLOCATION
11. NM: Inform AMC the Test is complete and that they can delete the AUP
12.

Findings/observation
- As showed on the print screen taken during the OPT, the expected -behaviour is observed:
The B2B error message are correctly reported and indicate to the operator the source of the error is related to the restriction associated to the FBZ

Analysis

-

Conclusion / way forward

The software behaviour and capability regarding the management of FBZ comply with what has been agreed with AMC Estonia.