

Making NOTAM digital



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Russian Federation

Monitor Soft NOTAM Experience

More than 100 installations over Russia and CIS

- AIS



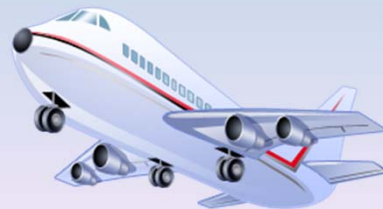
- Russian Federation
- Armenia
- Belarus
- Kazakhstan
- Kyrgyzstan
- Tajikistan
- Turkmenistan
- Uzbekistan



- Airports

- Sheremetevo
- Domodedovo
- Vnukovo
- Pulkovo
- Koltsovo
- etc

- Airlines



- Aeroflot
- Rossiya
- Transaero
- S7
- etc

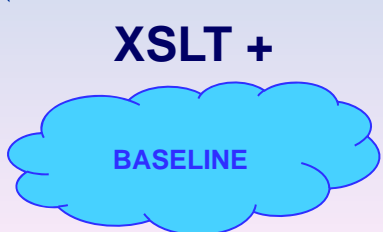
Digital NOTAM Event Scenario Implementation

```
<xs:element name="Airspace">
  <xs:annotation>
    <xs:appinfo>
      <title>Сценарий Активации Воздушной зоны</title>
      <filter optionName="type">P R D TSA TRA D_OTHER W PROTECT</filter>
    </xs:appinfo>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>

      <xs:element name="type" minOccurs="0" maxOccurs="1" type="msg:FinderComboBox"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

```
<aixm:timeSlice>
  <aixm:airspaceTimeSlice gml:id="ID_13">
    <gml:validTime>
      <gml:TimePeriod gml:id="ID_14">
        <gml:beginPosition>2010-07-10T07:00:00Z</gml:beginPosition>
        <gml:endPosition>2010-07-10T07:16:00Z</gml:endPosition>
      </gml:TimePeriod>
    </gml:validTime>
    <aixm:interpretation>TEMPPELLT</aixm:interpretation>
    <aixm:sequenceNumber>1</aixm:sequenceNumber>
    <aixm:activation>
      <aixm:airspaceactivation gml:id="ID_15">
        <aixm:activity>EXERCISE</aixm:activity>
        <aixm:status>ACTIVE</aixm:status>
        <aixm:levels>
          <aixm:airspaceLayer gml:id="ID_16">
            <aixm:upperLimit uom="OTHER">CEILING</aixm:upperLimit>
            <aixm:lowerLimit uom="OTHER">FLOOR</aixm:lowerLimit>
          </aixm:airspaceLayer>
        </aixm:levels>
      </aixm:airspaceactivation>
    </aixm:activation>
  </aixm:airspaceTimeSlice>
</aixm:timeSlice>
```

- Q)EADL/QRRCA/IV/BO/W/210/330/3609N00630E999
- A)EADL
- B)1007100700 C)1007101600
- E)TEMPORARY RESERVED AREA FAR23 DONLON EAST ACTIVE.
- MILITARY EXERCISE TAKING PLACE.
- FOR FURTHER INFORMATION PLEASE CONTACT DONLON ACC ON PHONE (12)123 45 67.
- F) FL210 G)FL330



Scenario: Published special activity area - activation

Get Native XML | Get Aixm | Get text NOTAM | Get Engine Instruct | Save to base

Published special activity area - activation

Airspace type: R

Designator: ACR001

Name: MNBKBJH

Activation status: ACTIVE

Start time: 00:00 16.05.2014

End time: 00:00 30.05.2014

Schedule: 1/3 Daily

Interval: 1/2 Time

Start Time: 12:00 | End Time: 18:00

Excluded

Notes

Activity type: AIRSHOW

Upper lower limits

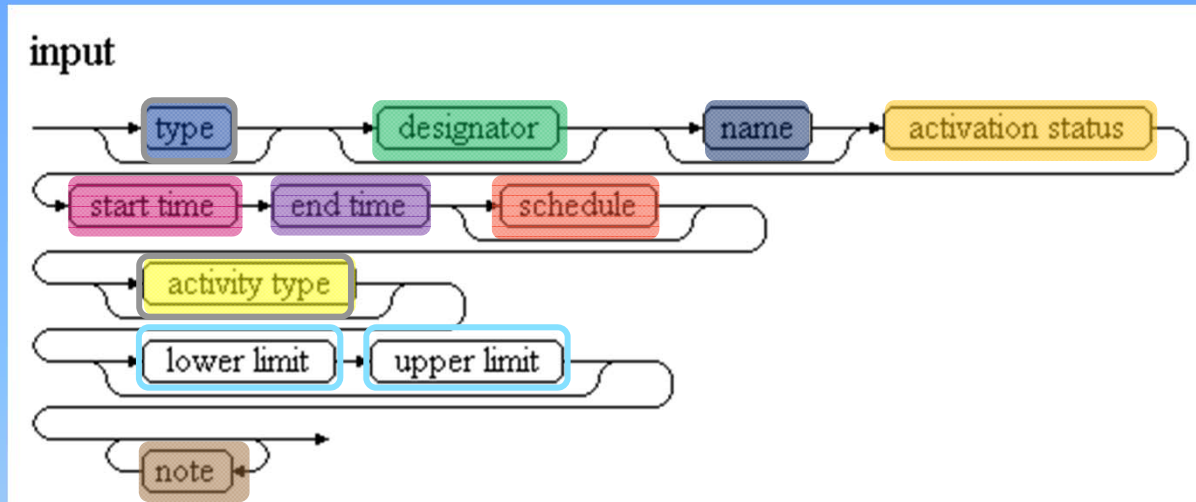
Notes



```
<Airspace dbid="3585" uuid="0e0e7b5c-a8fb-4b56-ac63-c0776b45d886">
  <type>SAKPHTOE</type>
  <designator>IGOR5</designator>
  <activation_status>ACTIVE</activation_status>
  <start_time>2014-04-17T10:00:00.000</start_time>
  <end_time>2014-04-19T20:00:00.000</end_time>
  <schedule templateType="daily">
    <intervals>
      <timeInterval>
        <startTime>10:00</startTime>
        <endTime>20:00</endTime>
      </timeInterval>
    </intervals>
  </schedule>
  <activity_type>AERIAL_WORK</activity_type>
  <up_low_limits>
    <lower_limit>0</lower_limit>
    <lower_limit_reference>MSL</lower_limit_reference>
    <upper_limit>1500</upper_limit>
    <upper_limit_reference>MSL</upper_limit_reference>
  </up_low_limits>
</Airspace>
```



Text NOTAM Producing Process



BASELINE
vertical limits
horizontal projection

Q)EADL/QRRCA/IV/BO/W/000/420/5221N00745W050

A)EADL

B)1006132300 C)1007010800

D)DAILY 0000-0800 2300-2359

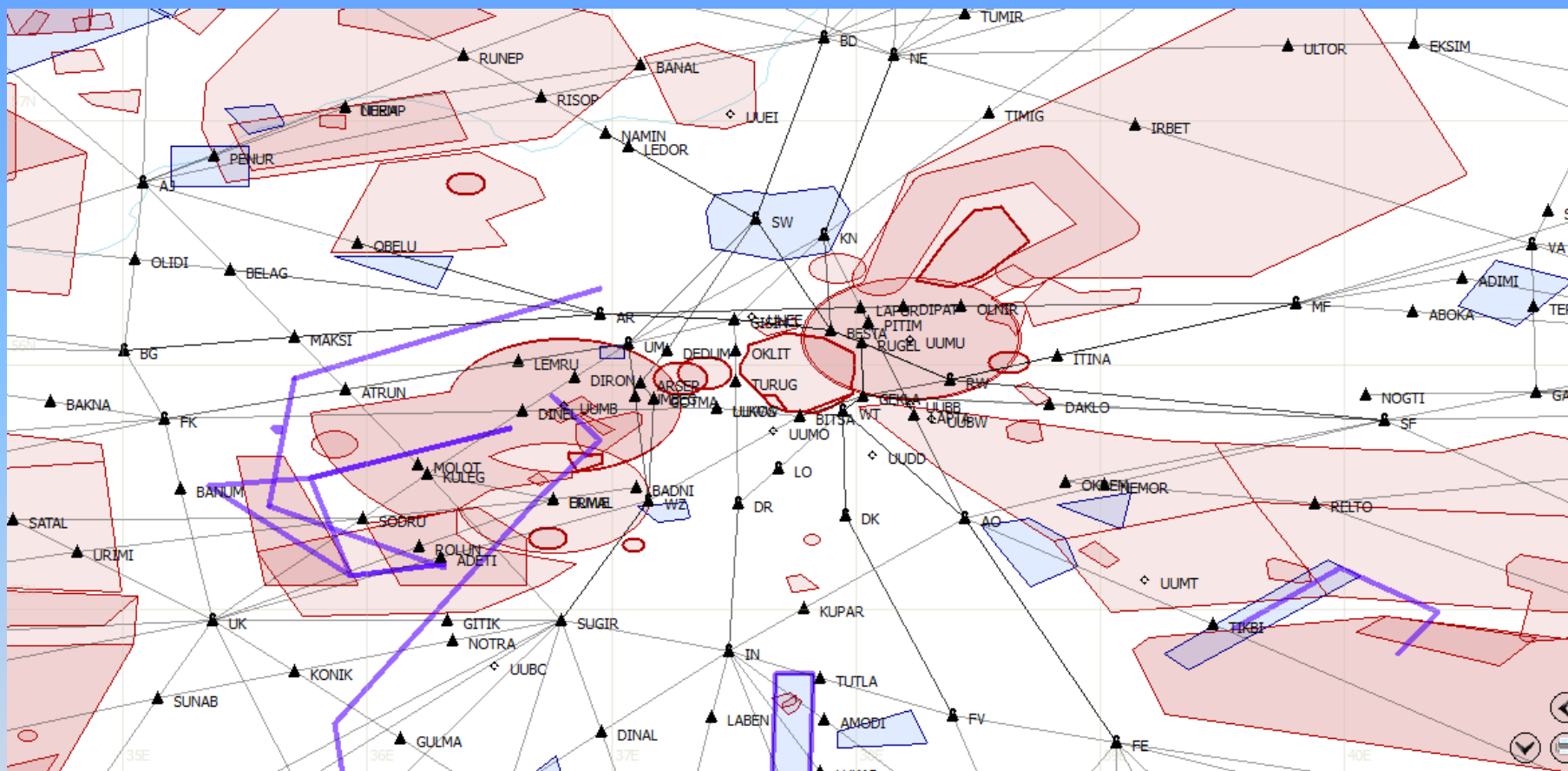
E)RESTRICTED AREA EAR736AB TOWNSVILLE ACTIVE.

MILITARY OPERATIONS TAKING PLACE.

FOR FURTHER INFORMATION PLEASE CONTACT DONLON ACC
ON PHONE (12)123 45 67.

F) SFC G)FL420

«Digitalizing» NOTAM today



Components Composition Search NOTAM Map DB NOTAM PIB

- Federal
- Military
- Local airlines

Map

- Location indicator ICAO
- Airport Name

type: Federal Local airlines

- FIR
 - Selection
- FIR
- UAAA
 - UACC
 - UAII
 - UAII
 - UAII
 - UAII
 - UAII

- Range Altitude
- Lower 0 Upper 99999
- OM
- OFT
- Type

- Warnings (A)
- Area fly military aircraft (M)
- Training area (T)
- Cautions (C)
- Prohibited area (P)
- Notification (W)

- Air Routes
- Way Point
- coordinates

Processing

- Airports
- FIR
- Restrictions Area



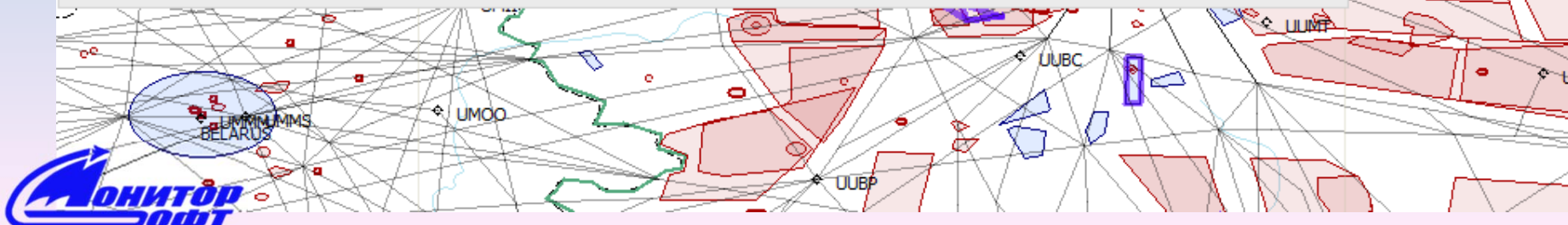
Classified NOTAM list

БЕЛАРУСЬ

UMMV	MINSK FIR	UMMV MINSK FIR
UMMS	MINSK 2	00771/14 1405081700 - 1408311700
MK	PRKG AREA	BREST FIS AREA AVBL H24
UMMV	MINSK FIR	UMMV MINSK FIR
SE	FIS	00772/14 1405081700 - 1408311700
RD	DANGER AREA	HRODNA FIS AREA AVBL H24
WL	ASCENT OF FREE BAL...	UMMV MINSK FIR
RT	TEMPORARY RESTRICT...	00775/14 1405120600 - 1405171600
AN	RNAV RTE	12-16 0600-2359, 17 0600-1600
UMOO	MAHILIOU	DANGER AREA UMD187 ACTIVATED
MN	APRON	Lower: GND Upper: FL240
		UMMV MINSK FIR
		00776/14 1405120600 - 1405161200
		12 13 14 15 0600-1200 AND 1700-2100, 16 0600-1200
		DANGER AREA UMD188 ACTIVATED
		Lower: GND Upper: 4900FT AMSL
		UMMV MINSK FIR
		00783/14 1405120500 - 1405162100
		DAILY 0500-2100
		DANGER AREA UMD196 ACTIVATED
		Lower: GND Upper: FL110

Print Close

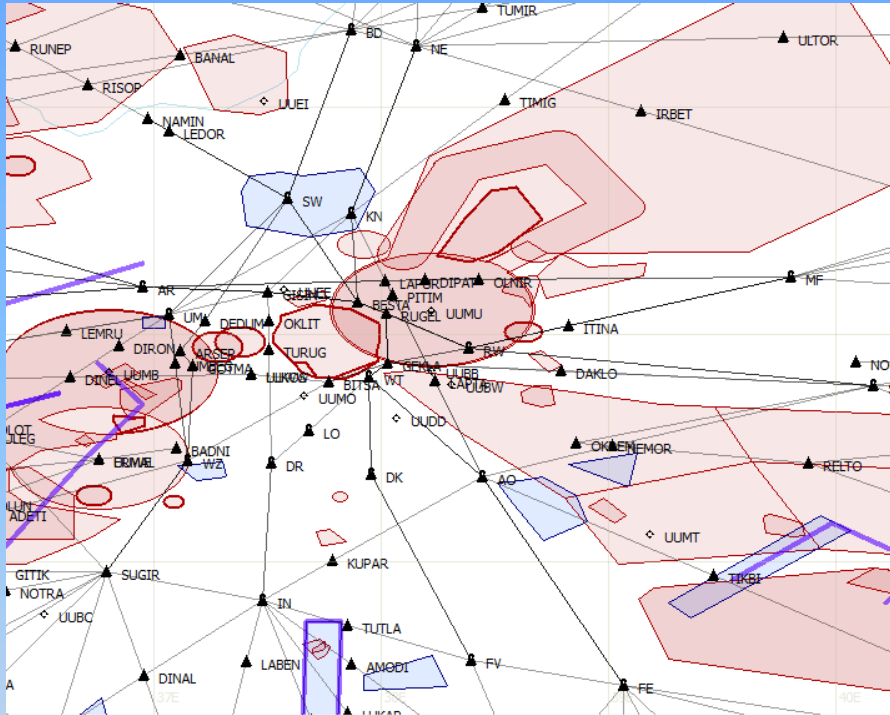
33:33



Identified Problems

- Different format in different countries
- Difficult to treat schedule especially in field E)
- “Along the border”

Digital NOTAM



enhanced visibility for pilots

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n:timeSlice>  
<aixm:AirspaceTimeSlice gml:id="ID_13">  
  <gml:validTime>  
    <gml:TimePeriod gml:id="ID_14">  
      <gml:beginPosition>2010-07-10T07:00:00Z</gml:beginPosition>  
      <gml:endPosition>2010-07-10T07:16:00Z</gml:endPosition>  
    </gml:TimePeriod>  
  </gml:validTime>  
  <aixm:interpretation>TEMPDELTA</aixm:interpretation>  
  <aixm:sequenceNumber>1</aixm:sequenceNumber>  
  <aixm:activation>  
    <aixm:AirspaceActivation gml:id="ID_15">  
      <aixm:activity>EXERCISE</aixm:activity>  
      <aixm:status>ACTIVE</aixm:status>  
      <aixm:levels>  
        <aixm:AirspaceLayer gml:id="ID_16">  
          <aixm:upperLimit uom="OTHER">CEILIN</aixm:upperLimit>  
          <aixm:lowerLimit uom="OTHER">FLOOR</aixm:lowerLimit>  
        </aixm:AirspaceLayer>  
      </aixm:levels>  
    </aixm:AirspaceActivation>  
  </aixm:activation>  
</aixm:AirspaceTimeSlice>
```

strict format for computers



*flights safety and efficiency
improvement*

Thank you

Questions?