Air Traffic Meteorological category forecast

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3. ATMet category forecast criteria
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1. PURPOSE

What is ATMet category forecast?

- Product for the purpose of supporting ATM
- Probability which weather impact on air traffic flow

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2. Specification

Contents:
Probability which weather conditions impact on air traffic flow

The Probability is shown in four ranks
- Red: High
- Yellow: Probability
- Blue: Low
- No-Color: Valid 6 hour later (hourly)

Target areas:
ATC sectors in the domestic airspace and 7 major airports

ATC sectors in the domestic
7 major airports
2. Specification

Update: By 15min every hour
(Except 14~16UTC)
Inform: ATMC, some ATC centers, Airlines
and aviation weather offices

FORM: (Table format)
Notice in the ATMC operations room
2. Specification

FORM: (Table format)
Share information by using one of the large monitors in front of the operations room

ATMet category forecast

Air Traffic Demand Chart
Similar format to Air Traffic Demand Chart
ATMC officers can understand easily
2. Specification

**FORM**: (Tabular format)

Provide for the related organizations out of the ATMC

Show the color-code with the abbreviation

**FORM**: (map-type format)

Provide for the related organizations out of the ATMC

Show only color-code on the map
3. ATMet category forecast criteria

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<td>RJAA</td>
<td>RJGG</td>
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- **RED**:
  - Wind speed > 35 m/s
  - Visibility < 1 km
  - Ceiling < 1000 ft

- **YELLOW**:
  - Wind speed: 25-35 m/s
  - Visibility: 1-3 km
  - Ceiling: 1000-3000 ft
  - The proportion occupied with cylinder: 30% of the sector

- **BLUE**:
  - Wind speed: 0-25 m/s
  - Visibility: > 3 km
  - Ceiling: > 3000 ft
  - The proportion occupied with cylinder: 10% of the sector

The diagram illustrates the different color-coded sectors based on the forecast criteria.
How to determine the criteria

**Define:** Probability which weather conditions impact on air traffic flow

- Probability: 15 ~ 24%
- 25 ~ 49%
- 50 ~ 100%

- Investigations on the past SIG-WX cases
- Service rules of airlines
- Adjusting the opinion with ATM officers

The Possibility of go-around or holding rises extremely

Probability of air traffic flow control is 67%
3. ATMet category forecast criteria

CB exist on selected airway or on selected area

many aircrafts may deviate or change the route

CB is very important element to air traffic flow
4. Operation

4.1 The automation of the task
There are numerous criteria to check.

It is difficult to do all the task by hand, in limited time.

System automatically checks the criteria.

numerical weather prediction

Aerodrome sequential forecast

BUT... Not all the criteria are checked automatically.
4. Operation

4.1 The automation of the task

Elements that could be checked automatically referring to Aerodrome sequential forecast (about 70% of all the criteria)

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- Elements that could be checked automatically referring to numerical weather prediction (about 5% of all the criteria)

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- Elements that could be checked automatically referring to numerical weather prediction (about 5% of all the criteria)
4. Operation

4.1 The automation of the task

Elements that are check by hand (about 20% of all the criteria)

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<th>JBB</th>
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4.2 Flow of task

An actual flow of task is summarized in video.

GO TO VIDEO
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### 5. Assignment

<table>
<thead>
<tr>
<th>Condition</th>
<th>Action</th>
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<tr>
<td>All weather conditions can be checked automatically</td>
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© All weather conditions can be checked automatically
There is a task of how to determine ATM category forecast criteria for airports that have not so many traffic to be managed.

RJGG, RJBB, RJFF, ROAH

The same criteria as RJAA are applied.

We continue to investigate the weather conditions when Air Traffic Flow Controls were applied.

We have to evolve the means to support ATM!
以下、動画が動かなかった時に使用
Officer input

Be checked automatically

Numerical weather prediction is overlapped on the map
operate on the table
operate on the map