DAILY SYNOPSIS UPPER-AIR REPORTS

The sources of data, methods of accumulation, and index numbers used for the daily synoptic upper-air reports are quite similar to those used for the surface data and have been explained under "Daily Synoptic Surface Reports". However, the time of observation is different. For upper air reports, the observation at or nearest to 0000Z is shown in all cases. The time of the observation, to the nearest hour, is shown for each station.

Method of Presentation:

The upper air data are presented in four groups as follows:

1. Upper air wind data for all days for stations reporting in the new code.
2. Upper air wind data for all days for stations reporting in the old code.
3. Raw data for all days for stations reporting in the new code.
4. Raw data for all days for stations reporting in other than new code.

As in the surface data, it is expected that all stations will be reporting in the new code in the near future. At such time, data of each type will be combined. The data in each group are presented numerically by block numbers (where applicable) and semi-chronologically by stations within each block. Upper air wind data are also shown for raws where the raw balloon was tracked by rawin or radar methods.

Upper Air Wind Observations:

Each group of the upper air wind data contains all pilbar, rawin, and rawins received for that category. The data are shown in two tabulations, the first containing values of wind speed and direction for levels through 20,000 feet, and the second the same type of information for levels above 20,000 feet.

Symbol headings used for upper air winds reported in the new code, referred to as Type I above, are as follows:

- **dd**: Direction to 36 points.
- **ff**: Speed in knots.

Where an upper air wind observation is not taken and the reason for the missed observation is known, the reason is indicated under surface winds in the following code.

- 00: No balloons
- 99: Instrument trouble
- 02: Low clouds
- 97: Smoke
- 03: Thick dust
- 96: Rain
- 04: Fog
- 90: Unfavorable sea
- 05: No gas
- 99: Snow

11 - High or gusty surface wind

Reports from ships are similar to those from land stations except that position is given instead of station name.

Reports from Rurex are shown in the following manner:

- **RURU** 8000 8000 8000 8000 8000

- **III**: Station number.
- **GG**: Time (Moscow).
- **dd**: Wind direction to 36 points.
- **ff**: Wind speed in m.p.h.

Height levels are indicated as follows:

- S
- 300 meters.
- 9000 meters.
- 11999 meters.
- 20000 meters.
- etc.
- 29999 meters.

**M**: Reason for ceasing upper wind observation as follows:

- 0: Entering cloud
- 5: Lost behind cloud
- 6: Lost in fog
- 7: Lost in mist
- 8: Lost accidentially
- 9: Lost in precipitation

**H**: Height at which observation was discontinued in tens of meters.

**C**: Predominant cloud.

Explanation of other codes used by individual stations can be found in H.O. 206, 1946.

 exemples:

- **Station 01001, Jan Mayen, reports in Prat Code**
  (for code see H.O. 206, 1946)

Block 00 - British Isles - No significant levels sent. Occasionally ship reports are received in Coruscate Code. These are identified as such.

Explanation of the Russian code is as follows:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
</table>
| TTH   | Temperature of dew point, degrees C.
| 9997   | No significant levels sent.
| 9998   | Significant levels sent.
| 9999   | No data available.

Where a rawin is recorded and the reason for the missed observation is known, the reason is indicated under surface winds in the following code.

Symbol headings used for raws reported in the new code, referred to as Type III above, are as follows:

- **hh**: Height of feet above mean sea level.
- TT: Temperature of dew point, degrees C.
- TTH: Temperature of whole degrees, the 10th value being dropped.
- TTH: Temperature of dew point to whole degrees, the 10th value being dropped.
- TX: Approximate tenths value of air and dew point temperatures. The tenths values of T and TH can be determined from the following table.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>TTH</th>
<th>TX</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>123</td>
<td>456</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

dd: Wind direction to 36 points, even though code indicates whole degrees.

If no wind speed in knots. When value is over 100 knots, 50 is added to direction and the 100 figure dropped from the speed. Wind direction 22, speed 108 is shown as 72 - 08.

Hour or time of release of rawin to nearest hour, GCT.

Code Type I - An indicator to specify the units of height, temperature and wind direction used in the report. Explanation of the code is as follows:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Feet, 'C, wind direction to whole degrees.</td>
</tr>
<tr>
<td>1</td>
<td>Feet, 'C, wind direction to tens of degrees.</td>
</tr>
<tr>
<td>2</td>
<td>Feet, 'F, wind direction to whole degrees.</td>
</tr>
<tr>
<td>3</td>
<td>Feet, 'F, wind direction to tens of degrees.</td>
</tr>
<tr>
<td>4</td>
<td>Meters, 'C, wind direction to whole degrees.</td>
</tr>
<tr>
<td>5</td>
<td>Meters, 'C, wind direction to tens of degrees.</td>
</tr>
<tr>
<td>6</td>
<td>Feet, 'C, winds not reported.</td>
</tr>
<tr>
<td>7</td>
<td>Feet, 'F, winds not reported.</td>
</tr>
<tr>
<td>8</td>
<td>Meters, 'C, winds not reported.</td>
</tr>
<tr>
<td>9</td>
<td>Not allocated.</td>
</tr>
</tbody>
</table>

PPP: Pressure at significant level, in whole millibars. When value is over 999 mb., the 1000's value is dropped. 1023.4 mb. is shown as 023.

Ship raws are shown in the same manner with the ship's location in place of station name.

Exceptions:

- Station 01001, Jan Mayen, reports in Prat Code
  (for code see H.O. 206, 1946)