



International Civil Aviation Organization

**FOURTEENTH MEETING OF THE
COMMUNICATIONS/NAVIGATION/SURVEILLANCE
AND METEOROLOGY SUB-GROUP OF
APANPIRG (CNS/MET SG/14)**



Bangkok, Thailand, 19 – 22 July 2010

Agenda Item 14: Regional Met. Support to ATM

**(2) Exchange of information on Met. Support for operation at
aerodromes, terminal areas and en-route**

**ONLINE AVIATION MET BRIEFING IN INDIA
WITH SPECIAL REFERENCE TO LOW LEVEL FLIGHTS**

(Presented by India)

SUMMARY

This paper presents the salient features of Online aviation Met. briefing introduced in India with effect from 01 June 2007 and the recent extension to low level flights below 100 FL.

This paper relates to:

Strategic Objectives:

- A. Safety – Enhance global civil aviation safety
- D. Efficiency – Enhance the efficiency of aviation operations

Global Plan Initiatives:

- GPI-18 Aeronautical information
- GPI-19 Meteorological Systems

1. Introduction/Background

1.1 Online aviation meteorological Briefing System (OLBS) which was introduced on trial basis on 22 March 2006 from Chennai airport has been put into operation with effect from 1st June 2007 from all the four FIRs in India after getting approval from the competent authority.

1.2 Based on the requirements from the users, modifications have been carried out to provide the information needed by the users at the quickest possible time through menu driven software.

1.3 This service has been received well by the users. This service covered only the medium and high altitude flights from 2006 to early 2010 utilising WAFS products and locally prepared domestic SIGWX charts. To meet the operational requirements of low level flights (helicopters and small aircrafts flying between 030 and 070 FL), the OLBS service has been extended

on trial basis from Chennai in March 2010 and will be made operational soon from all airports under Chennai FIR. The frequency of low-level flight operations is not very high in all the airports, hence the route forecast is still provided in MET T3 hard copy form.

2. Discussion

2.1 The WAFS products along with locally generated SIGWX charts in electronic form (medium, 100-250 FL; high, 250-630 FL) for the OLBS was introduced from Chennai on 22 March 2006. After obtaining clearance from DGCA and on getting welcoming feedback from airlines, this service has been operationalised w.e.f 1st June 2007 for flights originating from airports located in all the FIRs of India.

2.2 To make the service more user friendly and to provide the information at the quickest possible time to the user, software modifications have been attempted continuously and the OLBS now provides all relevant forecasts and current weather information for any desired route at the click of a mouse.

2.3 In order to meet the demand from the low level flight operators for flights originating from Chennai / Coimbatore / Madurai / Trichy and Pondichery airports at heights below 050 FL for helicopters / Cessna type aircrafts, their flight plan is received online and acknowledged with a unique i.d for retrieval. An audio-visual alert is given to the Duty Met. Officer by the system when the low level flight plan is filed. Then the Met. Briefing documentations are prepared in electronic form and made available to the crew. This facility is available at Chennai airport Met. Office since March 2010.

2.4 A few more low level flight operators are expected to avail this service and on getting their feedback, this service will be operationalised at all the offices.

3. Other issue/topic (if any)

3.1 As 050 FL WINDTEMP chart is the lowest level for the WAFS product, the upper wind / temperature at 010, 020, 030, 040 and 060, 070 FL are obtained through subjective interpolation from the analysed charts and based on climatology.

3.2 Numerical weather prediction model based guidance is being contemplated despite their limitations on different terrain, elevation constraints in India.

4. Action by the Meeting

4.1 To take note of the information contained in this paper and the efforts made.

4.2 To discuss and suggest ways to generate WINDTEMP charts of flight levels 010, 020, 030, 040, 060, and 070 from WAFS.

CNS/MET SG/14 – WP/25
Attachment

Products available for online aviation Met. briefing

The screenshot shows a web browser window displaying the Aerodrome Meteorological Office, Chennai website. The page is titled "Aerodrome Meteorological Office, Chennai" and features several sections for weather briefing products:

- WIND / TEMP CHARTS:** Includes dropdown menus for "National" and "International" with "GET" buttons.
- SIGWX CHARTS:** Includes radio buttons for "National (SWH)", "National (SWM) TAFORS", and "Global (WAFIC)" with a "GET" button.
- ADDITIONAL WEATHER INFO:** Includes links for "METAR BLTN", "Latest Satellite Image", and "Synoptic Features".
- Any METAR:** Includes "Reset" and "GET" buttons.
- Any TAF Valid <12 hrs:** Includes "Reset" and "GET" buttons.
- Any TAF Valid >12 hrs:** Includes "Reset" and "GET" buttons.
- Local Forecast:** Chennai
- Take off Data:** Chennai
- Radar Products:** Chennai, Kolkata, Machilipatnam, Visakhapatnam
- Sigmet Warnings:** Chennai, Kolkata, Mumbai, NewDelhi
- Reference:** On Airports

The browser's address bar shows the URL: http://www.ams.chennai.gov.in/aviation/ia_menu.php?PHPSESSID=ad823c2af4fc3217ed07. The browser's status bar at the bottom indicates "Document Done (0.469 secs)" and the date/time "06:08:22 05/11/2009".

TAFs selected by the user for his flight VECC – VOMM - WSSS

The screenshot shows a Mozilla browser window with the address bar containing <http://www.wsscchennai.gov.in/aviation/anyTaff.php>. The page header includes the India Meteorological Department logo and the text "INDIA METEOROLOGICAL DEPARTMENT" and "AERODROME METEOROLOGICAL OFFICE, AIRPORT, CHENNAI - 900 922". Below the header, a status line reads "TAF(s) Retrieved On 03-11-2009 At 06:30 UTC". The main content area displays three TAFs:

```
TAF VECC 030000Z 0306/0412 05005KT 4000 HZ FEW020 SCT100 BECMG 0308/0310 5000 HZ SCT020 SCT100 BECMG 0312/0314 VRR03KT 3000 HZ FEW020 SCT100 BECMG 0316/0317 00000KT 2000 HZ NRC BECMG 0323/0324 1500 BR BECMG 0403/0405 36005KT 3000 HZ FEW020 BECMG 0408/0410 5000 HZ=
```

```
TAF VOMM 030300Z 0306/0412 04010KT 6000 SCT020 BKN100 BECMG 0315/0316 VRR03KT 4000 HZ TEMPO 0309/0310 3000 TSRA SCT020 FEW025CB BKN080 TEMPO 0321/0403 3000 TSRA SCT020 FEW025CB BKN080 BECMG 0406/0407 04010KT 6000=
```

```
TAF WSSS 030500Z 0306/0412 VRR05KT 9999 FEW018CB SCT020 TEMPO 0306/0309 3000 TSRA SCT012CB BKN015=
```

The browser's status bar at the bottom shows "Document Done (0.259 secs)", a taskbar with "VOMM/VICC 3.0.0 - Netsys XIM" and "Mr. Anandharaman Lakshay - Home", and a system clock displaying "06:28:08 03/11/2009".

Online filing of Low level flight plan

The screenshot shows a Windows Internet Explorer browser window displaying a web form for filing a low level flight plan. The browser's address bar shows the URL: http://amschennai.gov.in/TT_Lower_level.html. The page title is "Welcomes | - Windows Internet Explorer provided by Yahoo!". The form is titled "Delux Briefing System of Aeronautical Meteorological Office, Chennai Airport" and contains the following fields:

Field	Value
Call Sign	VT-SWA
From	VOMM
To/Radial	KRISHNAPATNAM
Via/Distance	VOTP
Alternate	VOHS / VOBL
Flight Level	050
ETD (Timings in UTC)	YYYY 2009 MM 12 DD 10 HH 05 mm 30
Duration	HR 03 MIN 20
Beirflag At (Timings in UTC)	YYYY 2009 MM 12 DD 10 HH 03 mm 00
Additional Info	FL T LVL 030 VOTP-KRISHNAPATNAM
Contact No.	77560940 / 43511295
Flt Plan Filed By	GERALD NEWTON R
Agency	SWA/MS

At the bottom of the form, there are two buttons: "Submit" and "Reset". The browser's status bar at the bottom shows "Done", "Internet", and the system clock "10:14 AM".

Online Flight documentation

The screenshot shows the India Meteorological Department website with a flight forecast table. The table includes columns for station, time, and various meteorological parameters like wind, visibility, and cloud cover.

STATION	TIME	WIND	VIS	TCU	CB
VOMM	090300Z	0906/0915 070/10KT	6KM	2000FT	
VOTP	090300Z	0906/0915 070/10KT	6KM	1400FT	
KRISHNAPATNAM	090300Z	0906/0915 070/10KT	6KM	1500FT	

The screenshot shows the India Meteorological Department website with detailed forecast text for several stations. The text includes station identifiers, times, and specific meteorological data.

FCSTs 2009-12-09

FCST VOMM 090300Z 0906/0915 070/10KT VIS 6KM SCT 2000FT (600M) SCT 10000 FT (3000M) BECMG 0913/0914 010/10KT TEMPO 0909/0915 9CT 2000FT (600M) FEW TCU/CB 2500FT (750M) BKN 10000FT (3000M) -

FCST VOTP 090300Z 0906/0915 070/10KT VIS 6KM SCT 1400FT (450M) SCT 2000 FT (600M) TEMPO 0909/0915 FEW TCU/CB 2500FT (750M) -

FCST VOBZ 090900Z 0909/0915 020/10KT VIS 6KM FEW 2000FT (600M) SCT 2000FT (600M) BECMG 0909/0915 010/05KT VIS 5000M HZ NSC -

FCST VOHS 090300Z 0906/0915 140/10KT VIS 6KM FEW 2000FT (600M) SCT 2000FT (600M) BECMG 0912/0914 120/05KT VIS 5000M HZ NSC -

FCST VOBL 090300Z 0906/0915 110/05KT VIS 6KM FEW 1500FT (450M) SCT 2500FT (750M) -

FCST KRISHNAPATNAM 090300Z 0906/0915 070/10KT VIS 6KM SCT 1500FT (450M) SCT 2000FT (600M) TEMPO 0909/0915 FEW TCU/CB 2500FT (750M) -