



*International Civil Aviation Organization*

**COM CO-ORDINATION MEETING**

*People's Republic of China, Japan, Mongolia and Russian Federation*



Shanghai, People's Republic of China, 18 – 20 October 2011

---

**Agenda Item 2: Review the current implementation and operational status of AFS communications between States and discuss alternate routing arrangement for Fukuoka/Moscow circuit**

**REVIEW OF AFTN ROUTING DIRECTORY CHANGE**

(Presented by the Secretariat)

**SUMMARY**

This paper provides guidelines, technical provisions and operational requirements for AFS communication. It also reviews the requirements for AFTN Routing Directory updates.

**1. INTRODUCTION**

1.1 This paper provides guidelines, technical provisions and operational requirements for AFS communication for the area with interest of the meeting. It also discusses the requirement and related issues for AFTN routing directory changes resulted from shut-down the inter-regional AFTN circuit between Khabarovsk and Fukuoka.

**2. DISCUSSION**

General Performance requirement for Aeronautical Fixed Service (AFTN)

2.1 In accordance with Conclusion 10/2 – Aeronautical Fixed Telecommunication Network (AFTN) circuit performance of the Third ASIA/PAC RAN meeting held in Bangkok in 1993, States are requested to conduct and exchange monthly circuit performance charts for those AFTN circuits which do not function satisfactorily 97 % of the time during which the circuit is scheduled to be in operation. The statistics of circuit loading data are also conducted and exchanged twice a year (23-25 April and 23-25 October) according to the Conclusion 10/4 of the Third ASIA/PAC Regional Air Navigation meeting.

AFTN Circuit between Fukuoka and Moscow

2.2 At the fifth meeting of Aeronautical Telecommunication Network Implementation Coordination Group (ATNICG/5), hosted by Department of Civil Aviation, Malaysia in June 2010, Japan presented a proposal for AFTN Routing Change between Japan and Russia in view of the developments that had taken place. It was agreed that ICAO Regional office should coordinate with Europe Region for updating the AFTN routing directory. The proposal including closure of the circuit between Fukuoka and Khabarovsk and upgrading AFTN circuit between Fukuoka and Moscow to 64 Kbps landline circuit was endorsed by the CNS/MET Sub-group/14 meeting. APANPIRG/21 meeting held in 2010 adopted the following Conclusion formulated by ATNICG:

**Conclusion 21/25 – Japan/Russia AFTN Routing Change**

That, ICAO be requested to coordinate with Europe Region for updating its AFTN routing directory and consequential change to the APAC AFTN routing directory.

2.3 In accordance with above Conclusion, ICAO Bangkok Office carried out coordination with ICAO Paris Office regarding AFTN routing change required. It was agreed to update relevant routing changes in AFTN/CIDIN directory after review by the AFS group in the Europe. Then necessary consultation with China was also carried out in order to update the APAC AFTN Routing directory.

2.4 It was informed that the AFTN circuit between Moscow and Fukuoka was upgraded from analog low speed 200 Baud to digital high speed 64 Kbps on 14 January 2009. The performance of the circuits has been stable and the statistics of AFTN traffic load demonstrated less than 6 percent since the switchover. AFTN traffic delays between the two communication centres of Russia and Japan no longer exist.

2.5 In view of the foregoing Japan and Russia have proposed and later closed down the AFTN circuit between Fukuoka and Khabarovsk. The proposed AFTN routing change of UUUU-RJJJ and UHHH-RJJJ is shown in the Attachment 1 to this letter. Japan and Russia have proposed implementation date of routing change at 1100 UTC, 7 April 2011.

2.6 Since the proposed change also needs action to be taken by the Beijing AFTN centre for alternate routing arrangement in case of the circuit between Moscow and Fukuoka becomes un-serviceable.

2.7 The traffic loading statistics for the AFTN circuits between Japan and Russia provided by Japan for consideration by the meeting are as follows:

The statistics between Japan and Russia AFTN circuit is as follows.

Fukuoka-Moscow	64kbps (October 23-25, 2010)
Peak Percent hourly (Input and Output)	= less than 1%
Input 20,978characters hourly	218,776 characters daily
Output 120,403characters hourly	1,660,449 characters daily
Fukuoka- Khabarovsk	2,400bps (October 23-25, 2010)
Peak Percent hourly (Input)	= less than 2% 12,138characters hourly
Peak Percent hourly (Output)	= less than 6% 46,457characters hourly
Percent daily (Input)	= less than 1% 99,011characters daily
Percent daily (Output)	= less than 3% 535,884characters daily

2.8 The meeting is required to review the capacity and performance of the existing AFTN circuit between Beijing and Khabarovsk to identify whether it would be able to support the alternate routing requirement for the circuit between Moscow and Fukuoka. The meeting is also expected to develop an action plan for a solution and discuss whether landline circuit can be established in addition to the existing VSAT link between Beijing and Khabarovsk in order to support alternate routing and AMHS based emerging traffic between two centres.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to review the requirements for the landline circuit and alternate AFTN routing arrangement as highlighted in Section 2 and develop action plan for early implementation.

-----