

Memorandum of Understanding between Civil Aviation Authority of Nepal and Department of Hydrology and Meteorology regarding aviation meteorological service and its oversight

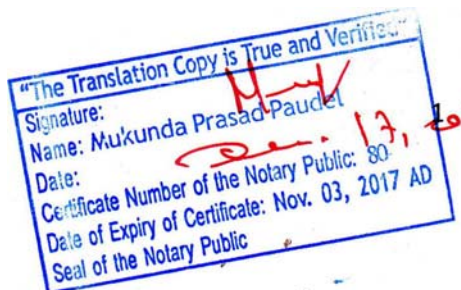
Chapter-1

Background:

Department of Hydrology and Meteorology (DHM) has been assigned by Government of Nepal as a body to provide required aviation meteorological services as per the provision of Annex-3 to Convention on International Civil Aviation (Meteorological Service for International Air Navigation).

Civil Aviation Authority of Nepal (CAAN) is working as a regulatory authority for secure, systematic, qualitative and effective operation of civil aviation service in Nepal in accordance to Civil Aviation Authority of Nepal Act, 2053 (1996). Section 5 of the said Act has assigned to the Authority the responsibility to implement or to cause to implement Annexes of Convention on International Civil Aviation.

As per the guiding principles of the International Civil Aviation Organization (ICAO), DHM and CAAN need to have mutual coordination and cooperation between them with clear provisions relating to providing of aviation meteorological service and its oversight. For that purpose, the amendment of the existing



Memorandum of understanding between the two entities has become necessary.

Chapter-2

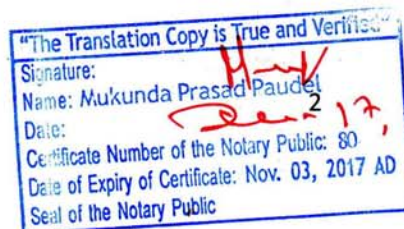
Responsibility of the Department of Hydrology and Meteorology

2.1. Functions Relating to Oversight of Aviation Meteorological Service:

2.1.1. DHM shall carry out the function of oversight of aviation meteorological service to be provided in consonance with the requirement issued by CAAN in accordance to Annex-3 to the Convention on International Civil Aviation. DHM shall provide information to CAAN with regards to activities relating to such oversight and information relating to reforms of such activities.

2.1.2. For the function of oversight in accordance to Part 2.1.1, DHM shall establish an organizational structure with MET Service Standard and Quality Assurance Section having sufficient MET Inspectors carrying out the functions other than providing aviation meteorological service under the direct supervision of Director General.

2.1.3. DHM shall formulate and enforce TOR clearly specifying the function, duty, power, experience, training and qualification of MET Inspectorate Staffs.



2.1.4. MET Service Standard and Quality Assurance Section under the DHM shall continue to carry out functions for the resolution, with corrective Action Plan (CAP), of the audit findings relating to aviation meteorological service as pointed out by ICAO Universal Safety Oversight Audit Program Continuous Monitoring Approach (USOAP CMA) in direct consultation and coordination with the Air Navigation Services Safety Standard Department of the CAAN.

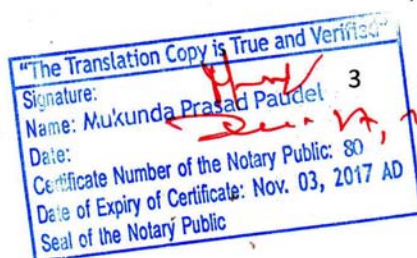
2.1.5. DHM shall provide its own opinion/ suggestion or comments within specified time on the ICAO State Letters related to aviation meteorology received from CAAN.

2.2. Function Related to Aviation Meteorological Service

2.2.1. DHM shall enforce Quality Management System for assurance of the quality of available aviation meteorological service.

2.2.2. DHM shall provide aviation meteorological service In airports and air space of Nepal as mentioned in Annex 1-Ain accordance to the requirements to be issued by CAAN. It shall also gradually provide meteorological service for aviation at the airports as mentioned in Annex-B.

2.2.3. Until the time of enforcement of requirement as mentioned in clause 2.2.2, DHM shall give continuation



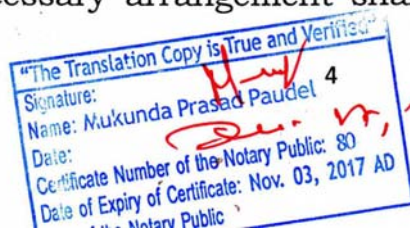
to the existing system of providing aviation meteorological service by giving due consideration to the provisions of ICAO and WMO.

2.2.4.1 .OHM shall provide continues service as mentioned in AIP Nepal (Gen 3.5 Meteorological Service) in other domestic airports including TIA together with providing additional service for twenty four hours a day at TIA as mentioned below:

- A. To provide additional meteorological information and services as required including METAR/SPECI /TAF/SIGMET/VOLMET, etc. OHM . shall take initiation with regards to providing Wind Shear Warning and AIRMET.
- B. To provide METAR in each half an hour interval and to provide SPECI as required during the period of flight operation in TIA.
- C. To provide oral briefing about existing climate to the concerned stakeholder.
- O. To include RVR data in METAR.

2.2.5. Required meteorological service shall be provided by field office of OHM during defined operation hour in connection to domestic airports (As mentioned in Annex-1A). Besides that, if it Is required to provide meteorological service, excluding the case of emergency,

necessary arrangement shall be made by Civil Aviation



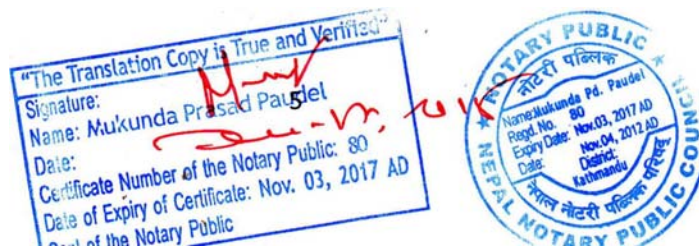
Office of the concerned airport by getting approval of concerned Regional Hydrological Office in coordination with concerned field office of DHM.

2.2.6. 6. DHM shall make the aviation meteorological service more effective by installing equipment relating to meteorology at appropriate places of airports on the basis of available resources as per the standard of World Meteorological Organization/ International Civil Aviation organization (WMO/ICAO).

2.2.7. The function of Inter Comparison/Periodic Calibration, as required, of MET equipment that are to be installed or are in operation after being installed in coordination between CAAN and DHM for the purpose of ATS Units in TIA or other domestic airports shall be carried out by the DHM. In case of installation of double equipment, arrangement shall be made maintain one of them as the main equipment and the other one as the alternate equipment.

2.2.8. DHM shall issue directive or staff instructions related to the matter of providing meteorological information and service including TAF, METAR, SPECI, SIGMET, VOLMET, AIRMET and Wind Shear Warning.

2.2.9. Subject to the responsibility of the State to abide by the ICAO Annex-3, aviation meteorological service in TIA is



being provided by OHM in two shifts at present. In this context, necessary initiation shall be taken by OHM to increase the number of staffs needed to provide the service in three shifts as there are in Tribhuvan International Airport Civil Aviation Office.

2.2.10. OHM shall carry out necessary coordination with CAAN regarding the identification and availability of appropriate place needed for installation and operation of other modern technologies relating to Radiosonde and Aviation Meteorology in different places of Nepal including airports.

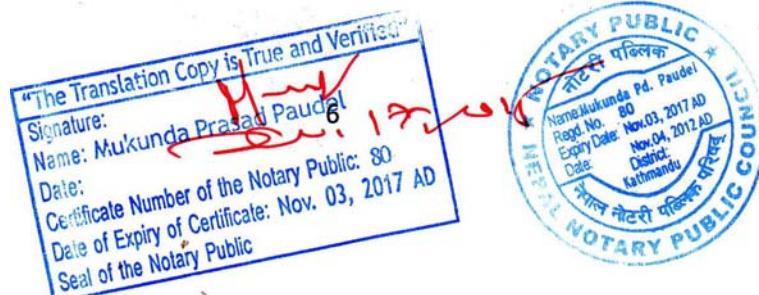
Chapter-3

Responsibility of Civil Aviation Authority of Nepal

3.1. Regarding function of issuing requirements relating aviation meteorology and its oversight.

3.1.1. CAAN shall Issue Civil Aviation Requirements 3 (Meteorological Service for International Air Navigation) in coordination with OHM to implement ICAO Annex-3 pursuant to Rule 82 of Civil Aviation Regulation, 2058 (2001).

3.1.2. CAAN shall make amendment to the requirements in consonance with relevant standards of ICAO in coordination with OHM.



3.1.3. CAAN shall coordinate with DHM for proper resolution of problems seen while abiding by the requirements relating to Aviation MET issued by CAAN.

3.1.4. CAAN shall update in the online framework the corrective action plan and efforts relating to the resolution of ICAO USOAP Audit findings as received from the DHM.

3.1.5. CAAN shall provide State Letters and other documents relating to Annex 3 received from ICAO to DHM for necessary action.

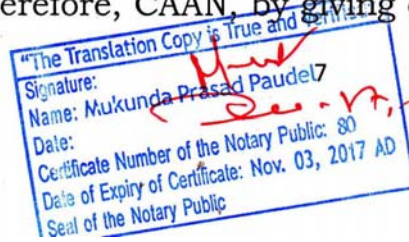
3.1.6. CAAN shall provide support for relevant safety oversight and Inspector training to be provided to MET Inspector of DHM.

3.2. Regarding the Provision of Aviation Meteorological Service

3.2.1. The Aviation Meteorological Service as mentioned in Part 2.2 above shall be provided to CAAN by DHM.

3.2.2. CAAN had been providing extra-remuneration to the staffs of DHM who were involved in the duty of providing VOLMET service and other aviation meteorological service in TIA after 6:00 PM during the extended operation hour. The method of increment of extra-remuneration by adjusting it in accordance to the increase in salary is a dynamic and scientific method.

Therefore, CAAN, by giving due consideration to current



salary and inflation, shall take necessary initiation from the date of enforcement of this MOU to provide an extra-remuneration which is in proportion with the increment in the salary as mentioned in Annex-2.

3.2.3. Regarding extra-Temuneration of the staffs of DHM working in domestic airports, it shall be as per the existing provision of domestic airport offices under the CAAN.

3.2.4. Regarding domestic airports, if it is required to provide immediate and special meteorological service, beyond the operation hour, necessary arrangement shall be made to provide /cause to provide meteorological service by making coordination with concerned airport management and field office of DHM. If it is required to continue such service, arrangement shall be made to provide /cause to provide meteorological service in consent and coordination of Airport Civil Aviation Office and concerned Regional Hydrological Office.

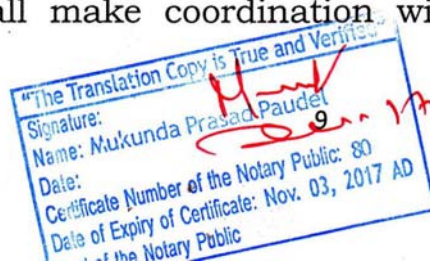
3.2.5. CAAN shall make necessary coordination with DHM in functions related with of infrastructure development like installation of the equipment of modern technology in airports for the purpose of providing meteorological service for aviation.



3.2.6. CAAN shall coordinate with DHM to prepare specification of equipment as per the WMO /ICAO standard in order to purchase new equipment relating to MET and to install those equipment. Daily and travel allowance (TA/DA) as per the rules of CAAN shall be provided by the CAAN to the staffs to be deputed in field by DHM for carrying out the functions like installation of equipment and inter comparison/Periodic Calibration of the equipment already installed by CAAN.

3.2.7. Arrangement shall be made to provide data/information received from MET-related equipment installed at airports to the concerned tower and MET-Office separately by CAAN and DHM through parallel display. Likewise, CAAN shall commence as quickly as possible the system of safe storage of data by archiving real time data in the database of CAAN and DHM for long term use of data of meteorological equipment installed by CAAN.

3.2.8. CAAN shall provide required place with facility of basic infrastructure like water supply, electricity and when possible, AMHS link within the premises of airport as far as possible in order to establish office of DHM for the purpose of strengthening and expansion of aviation meteorological service in TIA and other airports. DHM shall make coordination with CAAN formally to that



effect. Likewise, necessary proceeding shall be initiated by concerned Civil Aviation Office under the CAAN In relation to the identification and availability of appropriate place required for operating Radiosonde equipment for DHM in accordance to Clause No. 2.2.10 without adversely affecting the air traffic.

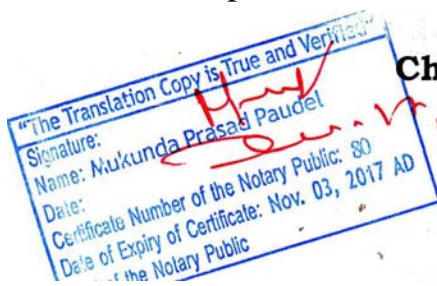
3.2.9. While providing approval for flight schedule by CAAN, necessary arrangement shall also be made to notify the DHM within reasonable time.

3.2.10. With regards to Clause No. 2.2.9 above, CAAN shall also provide support by taking necessary initiation on its own through concerned Ministry.

Chapter-4

Regarding Operational Level LOA

4.1. With regards to providing aviation meteorological service, Operational Level Letters of Agreement (LOA) relating to ATS-MET Coordination and MET-service delivery shall be concluded between Tribhuvan International Airport Civil Aviation Office, Flight Operation Department and Weather Forecasting Division in connection to TIA and between concerned Airport Civil Aviation Offices and concerned regional offices of DHM in connection to other domestic airports.



Chapter-5



Regarding Ownership and Maintenance of Equipment relating to Meteorology

5.1. Ownership and responsibility of repair and maintenance of meteorological equipment installed by CAAN and DHM shall be borne by the respective body installing concerned equipment.

Chapter-6

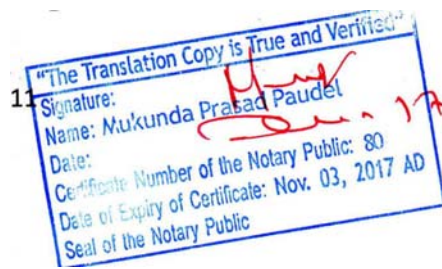
Provision regarding Coordination between CAA and DHM

6.1. Regarding Regulatory Function:

6.1.1.1. Focal Point shall be nominated from both sides for proper coordination between CAAN, ANS Safety Standards Department and DHM, Meteorological Service Standard and Quality Assurance Section with regards to providing meteorological service In accordance to requirements issued by CAAN, MET Oversight Function and State Letters received from ICAO.

6.2. Regarding the function of Aviation Meteorological Service:

6.2.1. One separate committee shall be formed by both parties in their central level for coordination in the policy-wise and central level issues including assurance of standard and quality of meteorological service for aviation, installation and repair and maintenance of



meteorological equipment as well as resolution of USOAP Findings relating to Aviation MET. To make proper coordination between those committees, necessary work shall be carried out by designating focal point from each party. Provided that for carrying out the function relating to the issues found in local level, coordination shall be made in DHM by Airport Civil Aviation Office through ANS Directorate and by field office of DHM through Regional Hydrological Office.

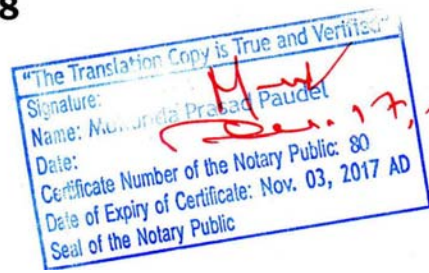
- 6.2.3. Necessary arrangement shall be made in local level to make coordination between domestic airport offices and concerned field offices of DHM in local issues and information of that function shall be given by airport offices to ANS Directorate and by DHM Field Offices to DHM through Regional Hydrological Office.

Chapter-7

Commencement and Repeal

This Memorandum of Understanding made by and between CAAN and DHM shall come into effect from September 18, 2015 and previous Memorandum of Understanding made on July 29, 2013 shall ipso-facto be repealed.

Chapter-8



Revision

Generally the clauses as mentioned in this Memorandum of Understanding (MOU) may be amended by making revision in two years but it can be amended at any time as per the requirement in mutual understanding of Civil Aviation Authority of Nepal and Department of Hydrology and Meteorology.

Signed this memorandum of understanding on behalf of CAAN and

DHM

On behalf of CAAN

Sd.

Director General

Civil Aviation Authority of Nepal

Babarmahal

Sd.

Deputy Director General

Air Navigation Services Directorate

Civil Aviation Authority of

Nepal

Babarmahal

On behalf of DHM

Sd.

Director General

Department of Hydrology and

Meteorology

Babarmahal

Sd.

Deputy Director General

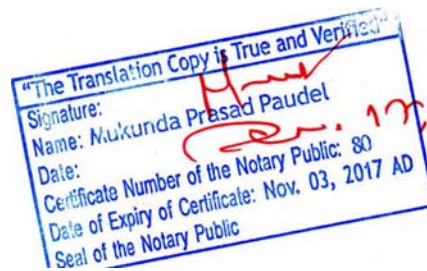
Weather Forecasting Division

Department of Hydrology and

Meteorology

Gauchar

(Done on Thursday, 17th day of September, 2015)



Annex-1 (A)

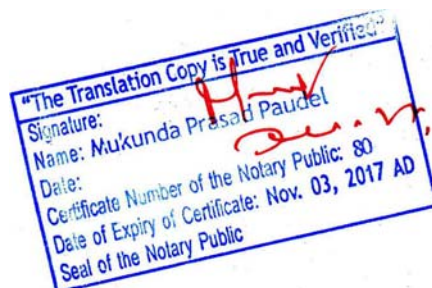
Domestic airports currently providing meteorological service

1. Biratnagar
2. Janakpur
3. Simara(Automatic center within this fiscal 2015/016)
4. Pokhara
5. Bhairahawa
6. Nepalgunj
7. SilgadhiDoti (Synoptic Center has been operated from July 17, 2015)
8. Manang (Humde) (Manual meteorological center has been operated from July, 2015)

Annex-1 (B)

Domestic airports where meteorological service can be provided in near future

1. Lukla
2. Surkhet
3. Jumla
4. Dhangadhi
5. Jomsom ((Automatic center planning to be installed within this fiscal year as far as possible)
6. Bharatpur
7. Chandragadhi (Jhapa)




Annex-2

Staffs of Weather Forecast Division providing VOLMET meteorological service as well as working in extended hour at TIA:

Staffs	No. of Staffs	O.T. Rate (in o/o of basic hour)* (6PM-12AM 12AM-6PM)	per
Sr. Meteorologist/ Meteorologist	1	0.65o/o	1o/o
Asst. Meteorologist/ Jr. Meteorologist Asst.	2	0.65o/o	1o/o
Driver (Level-S)	1	0.65o/o	NO O.T.
Office Asst.	1	0.65°/o	NO O.T.

*Basic salary shall mean, in connection to permanent staffs, basic salary of the staffs working in above mentioned post and in connection to the staffs working in contract, the basic salary of lowest level of their service.


 "The Translation Copy is True and Verified"
 Signature:
 Name: Mukunda Prasad Paudel
 Date:
 Certificate Number of the Notary Public: 80
 Date of Expiry of Certificate: Nov. 03, 2017 AD
 Seal of the Notary Public

