

# ATC-Pilot Interaction Program

On

## ‘Challenges of Air Traffic Services in Nepal’

Date: 9<sup>th</sup> June 2016 (27<sup>th</sup> Jestha 2073), Thursday

Venue: Airport Hotel, Kalimatidole, Kathmandu

Organizer: Tribhuvan International Airport, Civil Aviation Office

Program Coordinator: Director, Mr. Sudhir Kumar Chaudhary

MOC: Manager Pavan Kumar Gautam

Rapporteurs:

Manager Rita Shrestha, Dy. Manager Subash Khadka,

Dy. Manager Subash Deuja, Sr. Officer Om Thapa

At 14:10 Master of Ceremony Mr. Pavan Kumar Gautam apologized for the delay in program commencement due to busy schedule of the chief guest DGCA. At 14:13, the program commenced with the arrival of chief guest DGCA Mr. Sanjeev Gautam which was followed by welcome of distinguished guests at the Dias (DG, F.GM, AOAN, AOC, NATCA, MOCTCA, Cpt PSPMT, FOD) and badge distribution to the guests by lady ATCs.

### **1.1 Program Highlight by Mr. Sudhir Kumar Chaudhary, FOD TIACAO (1420 hr onwards):**

On behalf of CAAN, FOD Mr. Sudhir Chaudhary welcomed the participants and highlighted the need of interaction among ATCs and pilots amidst increasing challenges and opportunities in Nepalese Aviation (Refer Annex I for details). He expressed his immense gratitude in welcoming two eminent sections of aviation for an interaction program and expected the program to bring significant aviation issues on surface. Mr. Chaudhary emphasized on safe, orderly and expeditious delivery of ATS services from ATC's side and continuous cooperation and adherence to ATS clearances from pilot's side. As he proceeded, three main objectives of the interaction program were laid down which are mentioned below:

- a) To make the stake holders aware about the different challenges in the sector of Air Traffic Services of Nepal.
- b) To identify the best possible solutions to the existing challenges and recommend solutions to the concerned authorities.
- c) To heighten the cooperative and harmonious environment among ATCs and

Pilots in order to enhance the safety of the aircraft operation. The program was composed of two sessions: Opening session and Technical Session (Paper Presentation) and the papers to be presented were:

1. ATC delay
2. Overview of weather forecasting
3. Past understanding
4. SAR issue.

"ATC Delay" was introduced as the main focus of discussion to the congregation. He highlighted various issues associated with such inevitable delays and acknowledged delays as unpleasant experiences for both ATCs and Pilots which often sparked misunderstandings and arguments along with undue stress. FOD Mr. Chaudhary also provided hints on subsequent papers to be presented in course of time. He opined that identification of lags and control measures should be followed by effective implementation of plans and procedures that could pave way to a safer sky. The need of forming a team of ATCs and pilots for implementation and constant monitoring to ensure the rules are adhered to by all was felt and recommended. Finally, he ended his speech with a positive tone which reflected hope for better morrows.

### **1.2 Welcome speech by Mr. Bholu Guragain, For GM, TIACAO (1428 hr onwards):**

Mr. Guragain commenced his oration by offering salutation to all distinguished personalities and expressed his sincere gratitude for providing a suitable platform to introduce the challenges and constraints faced by Nepalese aviation community. He believed that everyone's efforts should be directed towards safe, efficient and reliable operation as a safer Nepalese sky was the responsibility of all. As a senior official of CAAN management, he confessed the presence of awful challenges and constraints which needed to be sorted out one by one and expressed his commitment to direct his efforts for the same in whatever ways possible. Since mid-June marked the onset of monsoon in the country, he requested everyone to be cautious as flights during monsoon were considered very critical. As ATCs and pilots were at the fore front of aviation, it was their duty and responsibility to

abide by the rules and regulations and it was their rights to be assisted at all times and with all means by all subordinate units. Therefore, everyone should be responsible and accountable to his deeds. He reiterated that combined efforts and assistance from all stakeholders could make the sky safer. Finally, he concluded stating the ATC-Pilot interaction would be a conducive forum for meaningful and sensible discussion on aviation domain.

*The chief guest DGCA inaugurated the program by lighting auspicious candle light at 14:33PM.*

### **1.3 Address by patron and president of Capt. PS Pathak Memorial Trust Ms. Usha Pathak:**

Feeling honored on being one of the participants and speakers of the program, Mrs. Usha Pathak introduced the trust and highlighted some of its activities. The trust had been awarding pilots in recognition of their service and contribution in enhancing aviation safety yearly. "Pilot of the year" was the title awarded by the trust to a veteran pilot for service to Nepalese aviation on annual basis. She also informed that due to the devastating earthquake, the award function could not be organized last year. However, she expressed that the trust would continue to felicitate Nepalese pilots for their contribution and courage. Likewise, conduction and participation in programs concerning aviation safety issues were very important aspect of the trust's policy. According to her, mountainous terrain, lack of infrastructures, and ephemeral and unpredictable weather conditions made flying in Nepal very challenging. Thus, she entitled the performance of ATCs and PILOTS as the acts of heroism; providing reliable and safe services to commuters despite numerous constraints and challenges. She believed the unparalleled confidence and determination of ATCs and pilots would be able to set values in aviation business. She simply adored the performance of Nepalese ATCs and pilots amidst the challenges posed by the nature and constraints of the economy. Finally, she anticipated that sensible aviation issues would be raised and effective strategies would be formulated to curtail the threats in aviation safety through active participation of the aviation experts.

### **1.4 Address by President of NATCA, Mr. Devendra Prasad Shrestha, TIACAO (1442 onwards):**

President of NATCA Mr. Devendra Prasad Shrestha welcomed the participants and expressed sincere words of gratitude to all for attending the program despite the strike. While continuing with greetings and wishing for the success of the program, Mr. Shrestha also grieved on not being able to organize the annual interaction program last year due to the destructive earthquake. According to him, unlike in other nations where many rules and regulations were enforced to maintain the standards in aviation, we relied mostly on documented or undocumented understandings. This was not only a peculiar attribute of Nepalese aviation but also an issue which could spark some misunderstandings and difficulties, especially during tough times when the governing understanding was undocumented. Therefore, he opined these interactions would aid in identification and resolution of the problems, and documentation of the understandings in black and white. TIA having numerous movements faced meteorological and geographical challenges in addition to the dearth of infrastructures. He believed ATCs had been fulfilling their duties and supporting airlines and pilots in all possible ways without any prejudices. "Within 6 hours long shift duty at TIA and bounded by the rules and regulations, handling 50 aircrafts an hour on average was really a gruesome job and violation of ATC instructions would not only severely impair ATC performance but might also compromise with the safety of the aircrafts and people onboard", opined Mr. Shrestha. He further warned that the target of 'zero accident' seemed unrealizable due to various constraints. He raised "apportioning of blame before the investigation committee made its report public" as a matter of serious concern for both ATCS and Pilots. So, he demanded all stake holders to be responsible and requested the media to be very sensitive and accountable following a tragic accident or incident. All such irresponsible and insensitive acts not only diminished the image of Nepalese aviation but also tarnished the profiles of ATCS and Pilots which would undoubtedly demoralize them in course of time. All the stakeholders like Meteorology department, Security agencies, Airlines etc. along with

the CAAN, TIA should be equally responsible for Aviation Safety. Hence, there should be coordinated approach towards making Nepalese sky safer. Finally, he wished for the success of the program.

**1.5 Address by Vice-President AOAN Mr. Rajendra Bahadur Singh, Managing Director Simrik Air (1448hr onward):**

As a passionate aviation entrepreneur, AOAN vice president felt honored in participating on the interaction between cockpit and the governors of the sky, which, he stated, hold a profound meaning to the business as well. Hence, such interaction played significant role in making the sky safer. He stated that agro based Nepalese economy had a tradition of welcoming “Monsoon” as it carried hopes and happiness for the peasants. However, a group of Nepalese aviation experts had gathered at the airport hotel to share knowledge and devise ways to make monsoon safer for aviation as “Monsoon” had been depicted as perilous to aviation domain. According to him Safety related matters were the most essential factors to be kept as the bottom-line for CAAN as well as Airlines. He questioned if we had the potential to build a congenial environment which would bring all concerned together and initiate for reversing the belief that monsoon was ominous and unsafe for aviators. Besides our prescribed duty line functions, he argued that we were also a part of seamless sky, which he entitled aviation ecosystem to which we owed some extra responsibilities and accountabilities. He put forth AOAN as an integral part of the aviation ecosystem and would continue for its welfare, growth and protection. Mr. Singh opted for pre monsoon and post monsoon safety awareness too for most of the accidents Nepalese aviation had experienced were CFITs which could occur anytime throughout the year. So, he focused on overall safety culture which encompassed not only monsoon or meteorological challenges but every bit of threats that could arise anywhere from ground to the sky. Hence he voiced for development of mechanisms to wipe out the accidents. Finally, he requested everyone to open up and share ideas and experiences because the views expressed today would lead to amendment or formulation of policies that would avoid incidents / accidents and save lives and properties tomorrow.

**1.6 Address by President of AOC Mr. Bharat Kumar Shrestha, Station Manager Oman Air (1456 hr onward):**

Mr. Bharat Kumar Shrestha opined that the day’s gathering was expected to deal as prudently as possible with “Flight Delays”, which had been hampering the business and images of all stakeholders. Weather, topography, limited bays and malfunctioning navigational aids were cited as the causes of delays but he expressed that limitations should be overcome through combined efforts of all. Furthermore, he expressed his concerns over numerous aviation specific issues raised by journalist Mr. Rajan Pokharel (The Himalayan Times) and wondered what made CAAN maintain silence over such allegations. Urging for CAAN to respond to those issues hurled by media, he wished for the grand success of the program and also recommended for inclusion of foreign crews to listen to what they had to share.

**1.7 Address by Joint Secretary MOCTCA Mr. Buddhi Sagar Lamichhane ( 1500 hr onward):**

Joint secretary Mr. Lamichhane opined that despite unified efforts from all concerned we had not been able to achieve the goal of ‘accident free sky in Nepal’. He argued although many discussions and programs were organized and recommendations were made, implementation ratio was meager because of which curtailing of incident and accidents had not been impressive. According to him, everyone should gear towards implementing recommendations so that a safer sky could be culminated in.

Mr. Lamichhane commented on the program title being narrow which could not encompass all the participants who represented different sections of aviation. He was overwhelmed by active

participation of a number of aviation enthusiasts and hinted on his direct linkage to ATS at beginning of his professional career. He hoped the interaction to be beneficial in recommending strategies and measures to be incorporated to mitigate and sort out the weaknesses. Citing general findings of investigation reports, he proclaimed that human errors in cock pits were mostly responsible for a number of mishaps. So, he recommended crew members to be more vigilant and sensitive as an error may cost the lives of hundreds and also recommended the ATS personnel to sternly intervene, command and control as and when necessary. Ultimately, he wrapped up his views advising everyone to adhere to documented procedures and wished for the success of the program.

### **1.8 Address by chief Guest DGCA Mr. Sanjiv Gautam (15:07hr onward):**

At the very beginning of the his oration, DGCA Mr. Gautam exclaimed to broaden the scope of the program and the objective of the congregation of experts and enthusiasts was not only to engineer a safer Nepalese sky but to assist in devising "More safe skies" as aviation transcended national boundaries. According to him, recently CAAN had been more focused on ICAO recommendation of splitting the regulatory and service provider sections so that conflict of interests and authorities would not hinder accelerated development of aviation in Nepal. This would rather be indispensable for precise allocation of roles and duties to each of the splits.

Being one of the signatory states, Nepal was obliged to comply with the ICAO circulars and SARPS. Both PILOTs and ATCs should contribute towards the achievement of the goals of Safe Air Transport without any biasness and prejudices. He stated that ATS was a broad concept which embraced Air safety, Airworthiness, air traffic control, SAR etc. According to him, there had been many challenges due to unique geographical location and number of heterogeneous traffics causing delays. He agreed with AOAN vice president that monsoon was not only the cause for CFIT and therefore integration of safety culture in our value systems was necessary to deal with the unexpected odds. Mr. Gautam proceeded stating that according to most of the investigation reports, three sensitive areas were accounted for incidents:

1. Loss of Control
2. CFIT and
3. RWY Incursions.

Hence, he mentioned that our motto was to reduce the number of accidents and our system should be properly managed to train the frontline ATS personnel to comply with existing regulations, and to cope with the advancement in Technology which could ensure better aviation. He also mentioned that Nepal failed to meet global compliance of ICAO SARPS by 2 %. Our compliance rate was 58%.

DGCA Mr. Gautam advised that interaction programs should attempt to bring all problems to surface, have rigorous discussions and interactions on them and recommend remedial actions. Hence, he believed attempting to resolve our problems by ourselves would assure accountability and effective delivery of the system in addition to development of mutual trust and bond. At the end, he complimented all and wished for an interactive session to follow.

### **1.9 Vote of Thanks by Chief ATC TIACAO Mrs. Griha Laxmi Guragain (15:15hr onwards):**

She exclaimed that the forum was honored and privileged by the benign presence of dignitaries, and gracious presence of DGCA. She thanked entire team of participants and suggested that program like this would offer an apt platform to share knowledge and discuss on issues of common interests.

***Refreshment was announced for 25 minutes.***

**SESSION 2: Technical session (Participants only)** started at 15:50hr which included four paper presentations, facilitated by respective moderators and followed a discussion session of 40 minutes duration after each presentation.

**1.1 Review Paper Presentation on “PAST UNDERSTANDING AND MONSOON CIRCULAR” by Manager Devendra Prasad Shrestha Moderator: DDG CAAN Mr. Raj Kumar Chettri**

Mr. Devendra Prasad Shrestha started the presentation at 15:52Hrs. See Annex II for details.

At 16:13, floor was opened for discussions by moderator.

**General Discussions:**

**Cpt. Rabindra Dangol**, TA air and Treasurer of Cpt. PSPMT made following comments:

- a. Landing and approach Sequence was not strictly maintained. He suggested for strict adherence to sequence so assist and support PICs.
- b. Rwy-in-use could not always be maintained during low visibility, weather and cloud. Entering valley at A0 65ft via Kakani and Nagarkot pass was not feasible. Therefore, he suggested allowing higher level for entering valley via afore mentioned passes.
- c. Taxi time needed to be revised and duration of 5 minutes taxi time should be made universal to all ACFTS for sequencing ease.
- d. Use of Phraseology “I SAY AGAIN” was not crew friendly. It heightened stress among pilots. He suggested avoiding the use of such phrases.
- e. Sometimes it was difficult to vacate the RWY via assigned TXY as it depended on aircraft performance. He considered use TXY ‘B’ for RWY exit for all ACFTS would be a better option when RWY 02 was in use.
- f. he urged for a ‘Crew Room Facility’ for pilots in domestic terminal which would initiate and ease dissemination of information on weather, NOTAMS and discussions on various aviation issues among pilots of different airlines. According to him, other countries had such designated room for crew members and hence Nepal should adopt the practice too.
- g. Domestic and International pilots should be treated equally during VHF communications.
- h. He requested to complete the communication with aTFC before moving onto next traffic.

**Cpt. PN Sherpa**, MTN Helicopters, mentioned that unlike fixed wing aircrafts, rotor wing aircrafts differed in nature and were operated mostly for rescue. According to him, the entire procedure of filing a flight plan was tedious. He opined that time was unnecessarily wasted on getting the flight plan sheet sealed at domestic office and the as the distance between domestic office and ATSRO was long, more time was wasted. He complained that this issue was raised during last interaction and still there had not been any improvement. He suggested using of e-mail for flight plan submission to avoid delays. It was very troublesome to hold during for rescue operations during IFR status at Kathmandu airport. He believed that when RNAV approach was in progress, it was not necessary to make a chopper hold north of Tokha. He explained that choppers are capable of flying at lower levels maintaining enough separation with other traffics in the vicinity. He humbly requested to review the procedures during SVFR conditions and use of helilanes. Finally, he exclaimed that rotor wings were mostly associated with rescue missions where time was always limited and hence, he demanded to be treated accordingly.

**Mr. Buddhi Sagar Lamichhane**, questioned on the effectiveness of understandings reached in the past. He inquired if there had been any studies to what extent the implementation of recommendations had assisted in shrinking the rates of mishaps. He emphasized on implementation and assessment of compliance and effectiveness otherwise similar issues would continue to arise in

future episodes of the interaction program. Finally, he hoped for some novelty in issues and contexts in future editions of the program.

**Mr. Raju Neupane**, Manang Air representative complained that none of the operators had received a copy of understandings and recommendations made during the last interaction program.

He recommended:

- To mention the responsible implementation authority.
- To be specific regarding the rules and regulations, not only at TIA but also at other airports.
- To implement the recommended solutions at the earliest.

At 16:36 **Mr. Sagar Acharya**, Goma Air expressed his solidarity for a crew room for briefing, display of PIB, NOTAM, internet facility, immediate dispatching of information etc. He opted for some considerations for VFR STOL aircrafts regarding altitudes.

At 16:38 **Mr. Govinda Poudel** Tara air, notified of not receiving NOTAMs via AMHS due to technical error which had not been rectified till the day of interaction program. He recommended commencing a meteorology chamber for weather briefing at the domestic terminal.

At 16:40 **Cpt. K B Poudel Chettri**, NAC expressed his gratitude and support to Nepalese ATCs for the dedication with which they had been serving aviation. According to captain Poudel, following aspects required some improvements.

1. ATIS should be continuous, correct, and updated instantly in case of any changes thereof.
2. There should be separate Clearance Delivery Frequency for reducing ground delays and holdings.
3. Timely issuance of EAT and any amendments thereof assist pilots in making speed adjustments to avoid holding.
4. Not practicable to provide QNH when at/above F150. Rather, it may create confusions.
5. Better issue Shorter Clearances
6. Rough surface of taxiways should be smoothed.
7. Extend the use of L626 for economy, time, revenue, and comfort.
8. Both ATCs and Pilots should maintain a higher grade of VHF discipline and avoid confrontations as much as possible. Correct position reporting should be made by pilots to assist ATCs in simultaneous management of numerous traffics.

At 16:44 **Joint Secretary MOCTCA Mr. Suresh Acharya** emphasized on implementation as most of the speakers had questioned previous recommendations not being implemented. He pressed on documenting understandings in black and white though they were principally based on the doc 4444, Annex 11 and CAAN ATM. He recommended that these understandings along with other rules and regulations should institutionalize safety. Mr. Acharya also admired and supported the concept of introducing a crew room at domestic terminal

At 16:46 **Moderator Mr. Raj Kumar Chettri** made commitment to facilitate to sort out the issues through appropriate channels. He believed Mr. Devendra's presentation was excellent and it provided a glimpse of difficulties in flight operation and endeavors made to resolve the odds. He proclaimed that interactions connect ATCS and Pilots together and help understand each other's difficulties. This would be fruitful in avoiding incidents and accidents. He also stated that the difficulties due to limited facilities and infrastructures could be overcome to some extent through such interactions as these often lead to some understandings; an alternative until the actual need was fulfilled. Mr. Chhetri urged everyone to endeavor for betterment and hoped that with combined

efforts we could attain a status of which could be proud of. Lastly, he announced completion of the presentation.

At 16:52 **Mr. SitaramBhandari** put forth his views in response to the issues raised during the presentation. His responses are mentioned below:

- The purpose of sequencing was to manage the traffics with ease and it was based on first come first serve basis. Usually, sequence once issued would not be changed unless the situation dictated otherwise. He introduced sequencing as tool based on least average delay to facilitate orderly flow of traffics and it was usually practiced when the status was IFR.
- Taxy time could be made universal after start up.
- Use of phraseology “I say again” was a documented procedure.
- He denied treating domestic and international pilots differently. TIACAO ATCOs had been practicing unbiased treatment among all crews, irrespective of his or her affiliation to national or international carriers.
- Regarding switching the Communication to other without completion of communication with previous traffics, he mentioned that it was a matter of acknowledgement and priority and position traffics at the time.
- The hassle in the FPL submission procedure was result of automation and more strict due e-strips. He assured that every ATC prioritize rescue flights. Procedures and separation minima during RNAV and SVFR operation were more stringent because of which choppers could not be considered for some flexibilities despite their capacities as claimed by Cpt. P N Sherpa.

**Mr. Devendra Prasad Shrestha** concluded the session committing that requirement to have the flight plans sealed at domestic session would be revised and also mentioned that maintenance of AFTN fell under the responsibilities of the service provider.

**1.2 Paper Presentation on “ATC Delay” by Manager Devendra Prasad Shrestha, Manager RabindraMaharjan, D. Manager Bijendra Shrestha, TIACAO  
Moderator: CAA Chief Mr. Narendra Bahadur Thapa**

At 1700 Moderator Mr. Narendra Bahadur Thapa announced for the presentation of tactical and hot topic regarding delay(Refer AnnexII for presentation details)

**General Discussions:**

Moderator Mr. Thapa admired the presentation for including data analysis and animation which made it informative. He requested the audience to raise concise and specific queries coherent to the presentation preceded by his or her brief introduction.

**Mr. UmeshPanthi** condemned the use of the term ‘ATC delay’ which somehow made ATCs responsible for the delays. He advised, ‘Contributory Factor’ would be better.

**Capt. RabindraDangol** assumed the presentation to be very encouraging, informative and it would definitely enhance ATC- PILOT understandings. As a pilot, he said pilots required logical reasons for delays. He also requested to maintain approach sequence during IFR status. He voiced for NOC to maintain better systems and facilities to save time. He argued that absence of NOC facilities at SI, CG and BP had compelled the operators to impose load restrictions. The situation would pathetic if an aircraft had diverted to a station without refueling facility. So, he recommended concerned authority to mull over this matter seriously. With some elements of sarcasm, captain Dongol stated that if NOC facilities were established at RC, no logic would invalidate his voice for refueling facilities at above mentioned stations. Mr. Dongol also suggested that while encouraging night flights to cope



with delays, due considerations should be made on the noise pollution at nights which would deprive or disturb public their rights to sleep.

NAC Pilot **Mr. BhogendraKathayat**, opposed to the conclusion reached on the basis of a month's data on delay. He believed the data didn't represent the actual scenario.

ATC **Mr. Devendra Prasad Shrestha** explained that delay resulted from a number of known and unexpected factors. According to him, separation standards didn't only enhance safety but somehow contributed to delays. Thus, sometimes delays were the price we paid for safety assurance. Concerning revision in approach sequence, he opted that the levels and distance play key roles for this. Mr. Shrestha acknowledged the suspicion raised by Mr. Kathayat on analysis of a month's data on average delay. He clarified that the analysis was not presented as an evidence of our efficiency or better delay management but its purpose was to establish the fact that delay existed everywhere. Finally, he wrapped up the answer session proclaiming that delays had become inevitable as a result of tremendous growth in aviation and the issue should be effective management of delays so that neither business nor the rights of people to swift transportation got adversely affected.

**Moderator Mr. Narendra Bahadur Thapa** concluded that such interaction must be carried out annually to improve the scenario one after another.

### 1.3 Paper Presentation on "Overview of Weather Forecasting in Nepal" by Mr. SujanSubedi, Sr Divisional Meteorologist, DHM, Moderator:CAA Chief Mr. Narendra Bahadur Thapa

The presentation on above mentioned topic was made from 1755 hrs. (Refer annex II for details)

Moderator Mr. Narendra Bahadur Thapa announced floor open for discussions.

#### **General Discussions:**

**Mr. Raju Neupane** from Manang Air commented on unavailability of TAF on DHM website, significant variation between tower observations and Met Observation in terms of visibility and cloud height.

**Mr. Suwarn Raj Upadhyaya** made queries about non-availability of SIGMET Chart in the DHM website with coordinates of location within KTM FIR. DHM website also lacked SIGMET and METAR. Mr. Upadhyaya also raised query on wind shear plan.

**Mr. Sanjay Kumar** was curious to know how forecasting was done and the degree of accuracy of the forecast. He also inquired about the future plans of DHM to improve the quality of the forecasts.

**Mr. Bimlesh Lal Karn** questioned on accuracy and precision of half hourly metar issued by the met office. He argued that the METAR cannot be fully trusted as weather is a dynamic phenomenon. In reference to intolerable variation in visibility between tower observation and metar, Mr. supported tower observation stating that visual observation from obscured location of the met office cannot be trusted. The issue of RVR was also raised in course of discussion.

**Mr. Bharat Prasad Sharma** queried on weather radar and data system service. He wanted to probe on reliability, validity and fidelity of the given data. He suggested uploading data in the website for it was the most effective and the quickest mode of information dissemination rather entertaining telephone inquiries. Mr. Sharma tried to explain the immense importance of weather briefing in aviation.

NAC Pilot **Mr. BhogendraKathayat** stated that met briefing to international carriers had been effective but for domestic TFC it hadn't been useful due to unavailability of en-route information (SIGMET). Therefore, he suggested forecast to be real time based and pilot friendly. According to

him, met stations at domestic other stations didn't only lack basic infra structures but also trained man power. The quality of met information provided at domestic stations was low in quality. Significant variations in cloud heights and visibility provided by tower and met office put the PICs in dilemma. Weather information was provided by many other institutions. So it was necessary to validate the authenticity of the information provided by them. He inquired if such institutions were in sync with DHM. Lastly, he was desirous of knowing about the technologies used for weather prediction in Nepal.

MOCTCA **Joint Secretary Mr. Suresh Acharya** at 18:25hrs elaborated weather observation made by pokhara tower and the weather information provided by Pokhara met office in relation to TARA air (9NAHH) crash on PK-JS route during the investigation. The investigation team found that on 24 Feb 0730, PKTWR observation was 5 km VFR against PK METAR 0800 visibility of 4000m. Again, 0900 METAR showed no variation in visibility which was constant at 4000m. This non uniformity clearly indicated lack of coordination and probably, it was high time that Visual Reference Points (VRP) were fixed in coordination with DHM. Hence, he urged everyone to be honest in one's duty and accountable to one's deeds.

**Mr. Subin Subedi** appreciated the inquisitiveness of the audience before answering them in sequence. In response to variations in visibility and cloud height, he clarified that observations differed personally but not so drastically. The location plays the role due altitude and the obstructions. The observation is horizontal visibility. DHM website did not consist information of SIGMET, ENROUTE WX, VOLMET, ICING, and WINDSHEAR. It includes only the general public forecast. DHM is working towards the Forecast verification minimizing the variations. Regarding RVR, it can be documented with the coordinated approach along with CAAN. Telephone calls can also be used for awareness to general public. In case of En-route weather lightening detection equipment is installed, NWP products results the high reliability. For the MET briefing to PILOTS, DHM is always prioritized as number one. DHM is planning to install 100 synoptic stations for the Real Time Weather. During TA air crash visibility differ due to manual observation from both TWR and METAR. Hence, Visibility meter will be the other alternative which also cannot give the exact value.

**Moderator Mr. Thapa** concluded the presentation by noting down the points raised for the further advancement to solve.

#### **1.4 Paper Presentation on "Search and Rescue and requirement in Nepal" by manager Sanjay Kumar. Moderator: Joint Secretary MOCTCA Mr. Suresh Acharya**

At 18:37 Mr. Sanjay Kumar started his presentation (Refer Annex II for details) as the punishment to all due delay. He started the presentation promising to wrap up in minimum time as advised by the moderator.

As per Mr. Sanjay Kumar ELT was not up-to date during most of the flight and hence was difficult to locate accident site after accident occurs. This problem of ELT activation should be cured and alternate for ELT should be used was the advised in the beginning from him. After the unsolved mystery (suspected crash) of Malayasian Air, Flight Tracker was mandatory for all aircraft and their operators. The type and model however has not been mentioned which may create unreliability during its use. He also pointed about lacking facilities for SAR group like digital map and satellite images for spot location of site and dependent upon the ground support mobilizing the troops that leads no role despite RCC/ACC facilities are active and functional. ATC service is vital during the SAR to coordinate during the phases of emergency. For rescue perspective, its nation's obligation should be high from different Ministry to mobilize the resources with the legal frame structure.

Due time factor, Moderator objected to conclude the presentation. Hence, presenter Mr. S Kumar concluded stating the directly proportional relationship between Safety and SAR for the mission to stop Accidents. He recommended for institutional setup for SMS implementation and to solve the hot issue of SAR for future benefit.

**General Discussion:**Floor opened by the Moderator.

**Mr. Bharat Prasad Sharma** questioned that despite Flight Tracker onboard, no message was received during accident. It's not reliable to use different types of tracker onboard.

**Capt P N Sherpa** mentioned about the improper and wrong information being disseminated. The online portal news is quicker for the broken News. He shared some views regarding fake news about helicopters which went missing in news portal which ultimately was fake news and ended with pilots and operators in stress. He advised ministry to take action against such media sources for useless news and establish the proper system for the information dissemination during the incident/accident.

Pilot**Mr. BhogendraKathayat** asked about the late rescue during the Sita Air 9NAHA crash at Manohara River near KTM Airport which ended all crew, passenger to death and aircraft into ashes.

**Mr. Raju Neupane, Manang Air** mentioned lack of Civil Aviation Manual regarding SAR with duty and responsibility. He threw his disappointment for not mobilizing helicopters in time during TA and Kasthamandap crashes were few lives could be saved.

**Mr. Sagar Acharya**, representative from Goma Air suggested the need of amendment, improvement and update in APT Emergency Plan (AEP) to give details about the procedures of mobilization during SAR.

**Col. Subash Thapa** NSBS mentioned about his coordination with the presenter Mr. S Kumar in RCC related programs. He mentioned Nepal being the ICAO signatory, Annexes is the BIBLE for us and everything is clearly mentioned there. Based on these Annexes Guidelines, Manuals, Directives are to be developed. During accident, any operators nearby should expedite for immediate response. Rather there is slow response due to confusion of the payment despite there is clearly mentioned about it in Annex. He advised to act priority on humanitarian values and sort out rest later.

**Ex FOD Mr. Birendra Shrestha** suggested for the initiation of SAR from outstation as well. He pointed investigation and SAR are different parts. MOCTCA with the collaboration with all the stakeholders should carry periodic SAR activities.

**Moderator Mr. Acharya** closed the open session and allowed the Presenter Mr. S Kumar to wrap up with the comments based on the discussion.

Search based on ATC information while Rescue depends upon the National Resources, hence channelized by ministry and other local agencies. He focused on the need of digital map and other resources on probable area/site promptly should be mobilized. Mr. Acharya suggested to maintain the separate SAR unit within the Military Command on standby mode. Its preparedness, distribution, mobilization are challenges for SAR. Also personnel should be well trained and well equipped for SAR operations.

Moderator Mr. Acharya praise about the research based data paper presentation. Nepal has alarming rate of accident. All stakeholders should direct towards zero fatality accident rate. Annex 12 SAR manual Clause 5.2 has clearly mentioned for the ELT Technical Specifications and its monitoring procedures. But during accident antenna is detached and no records are found. ELT is essential to decrease the response time for search and rescue. The recommendation to develop SAR regulations which gives the relaxation for the waiting order to NSBS for SAR operation. NSBS

should establish Air Base on Regional basis to conduct SAR promptly. He queried about the why ELT onboard is not activated in spite of registered by the operators to Bangalore MCC, also satellite frequency is not working too. In such case manufacturer should be informed. As per ICAO, Flight Tracker is just the voluntary not the mandatory. Lastly, thanking Mr. S Kumar announced the end of the Session.

At 19:41, **FOD Mr. Sudhir Kumar Choudhary** delivered the recommendations from the **AOC Secretary Mr. Santanu Sen**, Station Manager Malindo Airlines due to his absence:

1. To maintain Airway L626 up-to-date for the benefit to all in terms of time, revenue and comfort.
2. To make 24 HRS operation at TIA for widening the aviation service focusing the congestion on peak hours.
3. To establish and operate other Trans-Himalayan Routes enhancing the Nation's revenue via overfly.

### **1.5 Program Wrap up Closing Note by DDG CAAN Mr. Devendra KC**

At 19:42, with Namaskar greet he stated that we all are very much unpunctual and impractical about the time factor which we lagged behind. With no undue he announced the end of the program with many thanks.

### **1.6 Recommendations:**

#### **A. Recommendations for PILOTS/Airlines:**

1. Pilots should avoid violating ATS instructions as it might adversely affect the flight safety.
2. Concerned airliners should immediately respond during incident/accident as the payments and other aspects are clearly mentioned in Annex 12, manual and document. Humanitarian Values should receive due priority.
3. Pilots should maintain a higher grade of VHF discipline while reporting positions and avoiding undue arguments.

#### **B. Recommendations for ATC:**

1. Due considerations should be made in maintaining the Sequence during approach and Landing.
2. Shorter Clearances should be framed and delivered, if possible.

#### **C. Recommendations for TIA:**

1. Revision of taxi duration and it should be made universal for all ACFTS. (5 minutes recommended for sequencing ease).
2. ATIS broadcast frequency should be updated according to the changed procedures.
3. Provision of having the flight plan sealed at domestic office shall be revised and instead, a more effective mechanism should be devised like having the flight plan sealed and signed at ATSRO.
4. Establishment of separate Clearance Delivery Frequency and Air Traffic Flow Management (ATFM) unit for reducing the ground delays and holdings should be initiated.
5. Domestic and foreign pilots should be invited on programs like this.
6. "Crew Room" should be established where pilots of various airliners can interact about aviation topics and PIBs, NOTAMS and other pertinent information are displayed.
7. Reports of such interactions along with Past Understandings and Recommendations should be disseminated to all the stake holders.

#### **D. Recommendations for CAAN:**

1. CAAN should respond to issues related to aviation and pointed by some Journalist. CAAN should develop a regulation to take stern actions against yellow journalism trying to tarnish the image of CAAN and its partners in aviation.
2. AMHS Facility should be rectified immediately in case of technical faults on every nodes.
3. Refueling facility should be established at easily accessible Stations like SI, BP, and CG which will prove to be a boon during QRF.
4. Timely amendment, improvement and update in APT Emergency Plan (AEP) and SAR manual should be carried out.
5. A provision for SAR unit at each domestic stations should be developed to activate SAR and facilitate quick response during accidents and incidents.
6. A SAR board should be formed encompassing ministry, Nepal army, police, CAAN and airlines with clearly defined responsibilities and accountabilities.
7. SAR regulation that authorizes Nepal Army to take immediate actions during accidents and incidents should be formulated. Also, Nepal army should establish its air bases at different parts of the country for prompt action.
8. Taxiway surface should be smoothed immediately
9. Airway L626 should be brought into continuous operation as it is lucrative in terms of flight time, revenue and comfort.
10. TIA should be operated round the clock.
11. Trans-Himalayan Routes should be brought into operation as it will contribute significantly escalate revenue.

#### **E. Recommendations for Meteorology office:**

1. To support for the establishment and operation of the weather briefing office at domestic terminal building in coordination to the TIA/CAAN.
2. To establish the met observation site relocating from the existing jungle area to the operation building.
3. To keep the TAF, METAR, WIND SHEAR information, SIGMET along with the Chart with the coordinates of location within KTM FIR in DHM website.
4. To review the Visual Reference Points (VRP) of the aerodromes with the coordinated approach of TWR and Meteorology Department.

*The program was followed by a **cocktail dinner**.*

## **Annex I: PROGRAM HIGHLIGHTS BY FOD MR. SUDHIR KUMAR CHOUDHARY**

Good Afternoon,

1. The Chief Guest of the ATC-Pilot Interaction Program Mr. SanjivGautam, Director General of Civil Aviation Authority of Nepal
2. Joint Secretary of Ministry of Culture, Tourism and Civil Aviation Mr. Suresh Acharya and Mr. BudhiSagarLamichhane
3. Vice president of Airline Operator Association of Nepal (AOAN) Mr. Rajendra Bahadur Singh, MD, Sirmrik Airline
4. President of Nepal Air Traffic Controllers' Association (NATCA) Mr. Devendra Prasad Shrestha, Manager TIACAO
5. Patron and President of Captain Prabhu Sharan Pathak Memorial Trust Mrs. Usha Pathak
6. Deputy Director Generals of Civil Aviation Authority of Nepal
7. Chief of Civil Aviation Academy
8. Chief and Senior Pilots and representatives from different Airlines Operators
9. Distinguished experts, Professionals representing Civil Aviation
10. Distinguished guests, Air Traffic Controllers from different domestic airports and from TIA itself as Participants
11. Journalists, facilitators
12. Ladies and Gentlemen

I find myself in a happy atmosphere of the paramount opening ceremony and am honored to extend few words of program highlight for being here this afternoon.

As we all know the main objective of Air Traffic Services is to provide Air Traffic Control service, Flight Information Service, and Alerting service in a safe, orderly and expeditious manner.

The main objectives of the ATC-Pilot Interaction Program are:

1. To make the stake holders aware about the different challenges in the sector of Air Traffic Services of Nepal.
2. To identify the best possible solutions to the existing challenges and recommend solutions to the concerned authorities.
3. To heighten the cooperative and harmonious environment among ATCs and Pilots in order to enhance the safety of the aircraft operation.

Flight safety is very critical and challenging in the context of Nepal where a lot mountainous region, hostile terrain, monsoon weather and frequent change in the climate requires a regular awareness program. Safety cannot be achieved in isolation and the stake holder's active participation is very much necessary in the whole for achieving flight safety.

Today's ATC-Pilot Interaction Program is divided in to two session; Opening Session will be followed by Technical Session in which 5 working papers will be presented.

These days a popular phrase is being frequently used by the Airline Operator. That is 'ATC Delay' and it is common to airline operators. There are numerous factors that cause ATC Delay. Few of them may be the Aerodrome layout, Heterogeneous traffic pattern, Frequent runway change, ICAO requirements, Operators Requirements, some obstruction in the route of helicopters (heli-lane) are known to be developed, introduction of new CNS/ATM facilities etc. These are the main challenges of ATS facing by the ATS personnel.

Out of these challenges, today, we are going to discuss especially on 'ATC Delay' since several issues are connected to it. This Paper will be presented by group of Air Traffic Controller of Flight

Operation Department, Tribhuvan International Airport Civil Aviation Office. They are Manager Devendra Prasad Shrestha, Manger RabindraMaharjan and Dy Manager Bijendra Shrestha. They are supported and guided by Manager DepakBajracharya, Manager BaburajaNakarmi.

In the second Working Paper, we shall discuss on the 'Weather Forecasting in Nepal' and paper will be presented by Mr. SujanSubedi, Senior Divisional Meteorologist of Department of Hydrology and Meteorology.

Third Working Paper will be presented by Manager Devendra Prasad Shrestha of Flight Operation Department, TIACAO on the "Past Understandings and Monsoon Circular". The understandings were made in the ATC-Pilot interaction program a decade ago. Most of the understandings are still valid, but some needs modification. Pilots also needs to be aware of the forthcoming monsoon. New ATCs and new Pilot have joined our aviation that also needs to know about these past understandings monsoon circular.

Fifth and the last paper on 'Search and Rescue, issues and requirements in Nepal' will be presented by Manager Sanjay Kumar of Flight Operation Department, Tribhuvan International Airport Civil Aviation Office.

We make understanding, we make plan, but we fail to implement the understandings, recommendations whatever may be the conclusions or recommendation of the interaction program. Today let's promise all of us to implement the recommendations that we make today. And lets form a expert group of ATC and Pilot today to implement the recommendation, to monitor the progress and submit the report to DGCA of Nepal in monthly basis.

Finally, I would like to say that I am optimistic and hopeful that today's interaction program will definitely help to improve the level of knowledge among the controllers as well as Pilots and the conclusions which come from the discussion of this interaction will be very much fruitful in the days to come.

Thank you.

Sudhir Kumar Chaudhary

Director, Flight Operation Department,

Tribhuvan International Airport Civil Aviation Office

2073.2.27 (9th June 2016)

**Annex II: WELCOME REMARKS BYTIACAO For GM MR. BHOLA GURAGAIN**

**Annex III: PAPER PRESENTATIONS**

**Annex IV: PHOTOS**