



International Civil Aviation Organization

**ELEVENTH MEETING OF THE ASIA PACIFIC REGIONAL AVIATION SAFETY TEAM
(APRAST/11)**

Bangkok, Thailand, 20 to 24 November 2017

Agenda Item 6: Presentations – State / Industry / ICAO

RUNWAY SAFETY PROGRAMME IMPLEMENTATION

(Presented by Islamic Republic of Pakistan)

SUMMARY

To ensure runway safety Federal Government of Pakistan approved CAA Rule 1994 restricting access to runway thus providing legal frame work to PCAA for implementation of runway safety programme. Runway safety program was initiated in January 2013 by the Regulator (Aerodrome Standards) in PCAA issuing an ANO-002-DRAS. The program was further strengthened by following ICAO guidelines wherein states were required to establish Runway Safety Teams (RSTs) at the airports, which was approved in second meeting of Regional Aviation Safety Group-Asia and Pacific Region (RASG-APAC). RSTs were constituted at international and major airports which includes representation from stake holders to implement the Runway Safety Program. The efficiency of RSTs is being monitored through Data analysis by APS and OPS Directorates at National level. Regular meetings are being held at Airports and Safety Enhancement Initiatives (SEI) are discussed for further improvement / implementation.

1. INTRODUCTION

1.1 Landing and take-off are the most critical phases of flight. Runway is an area where landing and departing aircrafts may have chances of runway incursion with other taxing aircrafts, ground vehicles and personnel. With the speed of landing / departing aircraft & limited ability to manoeuvre to avoid potential safety hazard as may be created by runway incursions or presence of foreign objects may become a serious safety threat to aviation. Therefore a sustainable strategy is to be adopted to avoid runway incursions and to keep the hazards as low as reasonably practical (ALARP) or to a minimum acceptable level.

2. DISCUSSION

2.1 CAA Rules 1994 (Rule # 92) depicts that “No person shall enter and no vehicle shall be driven on a manoeuvring area on an aerodrome except with the express permission of and in compliance with the instructions issued by an officer on duty in an Air Traffic Service unit at that aerodrome, or in the absence of such a unit without the express permission of the manager of that aerodrome”.

2.2 Aviation safety programmes have a common goal – to reduce hazards, mitigate and manage residual risk in air transportation. Runway operations are an integral part of aviation; the hazards and risks associated with runway operations need to be managed in order to prevent runway incursion that may lead to accidents. Runway accidents fall into three main categories i.e. Incursion, Excursion and Confusion. The Runway Incursion is any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the

landing and take-off of aircraft. Runway Excursion is a veer off or overrun off the runway surface, its designated runway during take-off or landing. Runway Confusions considered to have occurred whenever an aircraft has made an unintentional use of wrong runway.

2.3 It is evident from above that pilots, air traffic controllers, drivers / operators of vehicles on the airside each may involve in runway incursion. Other contributing factors may involve complex airport design, poor lighting, improper signage / markings, communication failure etc for runway incursions. A survey of operational staff showed that approximately thirty percent of drivers, twenty percent of air traffic controllers and fifty percent of pilots reported being involved in runway incursion (Eurocontrol survey 2001). SHELL model is considered to be most appropriate for improvement.

2.4 PCAA therefore, has initiated a continuous awareness / training program for controllers, pilots and personnel driving vehicles on the airside to develop and inculcate safety thinking which not only improve runway safety but will also help in developing a safety culture. The concept to train the individual will pay off by bringing the change in the way of thinking and attitude of the organizations. The national level evaluation mechanism of the data being generated by RSTs on contributing factors for runway safety issues / runway incursions will yield improvement, decrease failures and greatly help to develop runway safety culture. The measures already taken and initiatives being taken are numerated below:

- (a) Hazard and incident reporting system has already been established at all major and medium airports of Pakistan. All the employees of PCAA and the stakeholders are encouraged to report the hazards. The procedure (CAAO-015-MSXX) of Hazard reporting and Risk Management has already published and disseminated which is in line with Annex 19 (ICAO Doc 9859).
- (b) SOPs on “safety of runway from incursion”, “low visibility operation on airside”, “Operation of personnel and vehicles on the movement area” have been issued and followed.
- (c) For enhancing awareness and to bring in safety culture at the Airports, PCAA is continuously arranging ICAO SMS courses for the employees and the stakeholders. Till date 63 ICAO SMS Courses have been conducted and about 1200 individuals have attended/ trained
- (d) To minimize ‘Unstable Approaches’ 09 awareness sessions on unstable approaches in perspective of Pilot and ATC both have been conducted in 2017 and 132 Air traffic controllers have attended the sessions. 04 more awareness sessions are due in the current year.
- (e) Drivers operating vehicles on the airside are issued Apron Driving Permit (ADP) after undergoing a check on driving skills, familiarity with airside, R/T communication & understanding and a medical examination. ADPs are renewed on yearly basis with repetition of same tests.
- (f) Hot spots, which are locations on an aerodrome movement area where there is a higher risk of collision or runway incursion and where delicate attention from pilots / drivers is necessary have been marked, shared and monitored.
- (g) Entry to runway for Runway Inspections or any reason is only possible on the instruction, permission and requirement of Air Traffic Control.
- (h) Segregated route to ply along various areas of runway by provision of perimeter track, other roads to avoid unnecessary runway crossing.

- (i) Display of signage for vehicle drivers to remain clear of taxiways and runways.
- (j) All vehicles on manoeuvring area shall be R/T fitted in case it is not R/T fitted it is to be escorted by an R/T fitted vehicle for ensuring safety.
- (k) Rapid exit taxi ways are configured in a manner that confliction between departing and arriving aircraft can be mitigated.
- (l) Operators and stakeholders are encouraged to report incidents / runway incursions so as to reach a realistic outcome. Airside Management is making untiring efforts to collect real time actual data for the analyses for future course of action.

2.5 More human resource (controllers & vehicle drivers) is being trained, as a part of capacity building process, to ensure safety and better monitoring of the airside operation.

3. ACTION BY THE MEETING

3.1 The Meeting invites to:

- a) Note the efforts being made by PCAA to make aviation activities safer; and
- b) Suggest ICAO to focus on implementation of train the trainer program for member countries so as to develop local resources to impart training at a faster rate.

— END —