

Year Book 2016-2017



GOVERNMENT OF PAKISTAN
CABINET SECRETARIAT
AVIATION DIVISION
ISLAMABAD



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Sardar Mehtab Ahmed Khan Advisor to the Prime Minister on Aviation



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Foreword

The Year-Book of the Aviation Division has been prepared in pursuance of Rule 25(2) of the Rules of Business, 1973. This book contains vision and details of functions, organization, activities and achievements of the Aviation Division and its attached departments/organizations for the financial year 2016-2017. It contains information which may be of interest for the academia, researchers and relevant stakeholders.

The Aviation Division was established in June 2013 as a part of the Cabinet Secretariat. It had earlier been a wing under the Ministry of Defence. In a short span of time, Division has focused on safety, security and quality standards of aviation industry. Beside this, bilateral and multilateral liberalization; lowering taxes; stimulating economy through tourism, trade, etc.; public private partnership and infrastructural development are the areas under focus.

I hope that this book will prove useful for all interested.

Muhammad Irfan Elahi

Secretary
Cabinet Secretariat
(Aviation Division)
Islamabad

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AVIATION DIVISION

Introduction

Transportation sector is the most important sector of any economy and aviation industry is major part of this sector as it is one of the most dynamic industries in the world. Pakistan has also developed infrastructure for aviation industry which plays its role for the development of country. Aviation industry can affect the other sector of the economy, e.g. the International Trade, tourism and socio-economic condition of the country. In Pakistan, Aviation Division spearheads strategy, policy and oversight of all matters related to civil aviation. It has the primary focus on matters concerning civil aviation by virtue of its structural and human-resource oriented acumen. A developed civil air transport system is vital to economic development. Important economic centers like trade, tourism and agriculture rely on functioning of air transport system. This Division's activities hence are geared directly towards aviation and indirectly corroborating existing national economic growth plans. Aviation sector must thrive to some reasonable degree on its own terms. An entrepreneurial spirit and 'can-do' attitude among many other business values is encouraged.

Vision

Safe, efficient and profitable air transport industry of Pakistan and highest standards of weather forecasting.

Mission

To maintain the highest standards of safety, security and service by promoting air connectivity in the aviation sector and to ensure precision and accuracy in meteorological services of Pakistan.

Functions

Aviation Division has been allocated following functions:-

- i. Aircraft and air navigation; administration of the Civil Aviation Ordinance 1960 (XXXII 1960).
- ii. Development of civil aviation in Pakistan.
- iii. Provision of aerodromes.
- iv. Regulation, organization and safety of air traffic and of aerodromes and administration of Airport Security Force.
- v. Pakistan International Airlines Corporation Limited (PIACL).
- vi. Air Service Agreements with other countries; liaison with International Civil Aviation Organization (ICAO) and other international agencies concerned with aviation.
- vii. Federal Meteorological Organizations and Meteorological observatories; World Meteorological Organizations.

Departments/organizations

The following departments/organizations are working within the purview of Aviation Division:

- 1. Civil Aviation Authority (CAA)
- 2. Pakistan International Airlines Corporation Limited (PIACL)
- 3. Airport Security Force (ASF)
- 4. Pakistan Meteorological Department (PMD)

Budget 2016-17

Grant	Budget (in Rupees)
Aviation Division (05)	86,135,000
Airports Security (06)	5,313,791,000
Meteorology (07)	1,027,937,000
Development (105)	4,329,340,000

PSDP 2016-17

(Rupees Million)

S.N	Name of Scheme	Estima	ted cost	Expenditure	Throw-	Allocation 2015-16		
				upto 30.06.2016	forward			
		Total	Foreign Assistance	30.00.2010	as on 1.7.2016	Foreign Assistance	Rupees	Total
1	Development of Sustainable Rain Water Resources/Dams (Construction of Ramma Dam) NIIA	1657.000	0.000	956.160	700.840	0.000	700.840	700.840
2	Establishment of Basic Aerodrome Facilities in Mansehra (Land Acquisition)	1600.000	0.000	650.000	950.000	0.000	950.000	950.000
3	Establishment of Flood Forecasting & Warning System for Kaplani Nullah Basin, Mardan (KPK)	230.000	0.000	16.976	213.024	0.000	100.000	100.000
5	Establishment of Main Met. Office at New Islamabad International Airport	28.923	0.000	21.365	7.558	0.000	10.000	10.000
3	New Gwadar International Airport	22947.450	2751.120	679.000	21568.450	1400.00	100.000	1500.000

	(NGIA) (CPEC)							
6	ASF Accommodation	2035.431	0.000	400.000	1638.431	0.000	800.000	800.000
	Barracks at NIIA							
	Islamabad.							
7	Establishment of	2502.532	2441.000	55.949	2446.583	133.151	16.849	150.000
	Specialized Medium							
	Range Weather							
	Forecasting Centre							
	(SMRFC) and							
	Strengthening of							
	Weather Forecasting							
	System (JICA)							
8	Installation of	1580.000	1542.000	6.5000	1573.500	112.000	6.500	118.500
	Weather Surveillance							
	Radar at Karachi							
	(JICA)							

Achievements

International Regulation

Salam Air a second designated airline of Oman commenced flight operations to/from Sialkot and Karachi for Muscat. During ICAN 2016, Pakistan held Air Services Agreement talks with the following 05 countries for exploring means for further bilateral cooperation in aviation:

- Kazakhstan
- Oman
- Rwanda
- Turkey
- UAE

Bilateral Air Services Agreement talks were held with UAE on May 01-02, 2017 at Abu Dhabi to further pursue the aviation relations between the two countries in the light of the growing Aviation Traffic.

The adoption of CAREC Multilateral Air Services Agreement is under discussion with the CAREC Secretariat. The draft agreement has been prepared by Pakistan and will be discussed in the future consultations between CAREC Member States.

Discussion Paper relating to the Economic Development of Air Transport submitted to the 54th DGCA Conference held from 07th to 11th August at Ulaanbaatar, Mongolia.

Comprehensive Presentation on Open Skies Policy and CPEC symposium was organized in a symposium by Pakistan Air Force at Air Headquarter Islamabad alongwith its Prospects for Aviation Industry.

National Regulation

Amendments made by Secretary Aviation in the draft Conditions of Regular Public Transport (RPT), Charter, Aerial Work and Private Aircraft Operations Licenses, have been

incorporated and the same was vetted by ABS Co. and Legal Consultant of CAA for consequent approval by Aviation Division.

Following Applications for issuance of RPT are under consideration with CAA / Aviation Division.

- (1) Air Sial
- (2) Askari Air Pakistan
- (3) Afeef Zara Airways
- (4) Liberty Air

Following requests for issuance of Certificate to act as GSA on behalf of foreign airlines in Pakistan are under consideration:-

- (1) Abdul Aziz Saval
- (2) Universal Network System

Following GSAs have been certified to act on behalf of foreign Airlines:-

(1)	Salam Air	Country Express, GSA Pax
(2)	Air Arabia	Hansa Aviation, GSA Pax
(3)	Iraqi Airways	Wardah Int's, GSA Pax

Following requests for issuance of Certificate as Authorized Freight Forwarder / Shipper are under consideration:-

- (1) Scanwell Logistic Pakistan
- (2) Excel Freight System

Following General Aviation Licenses have been cancelled owing to:-

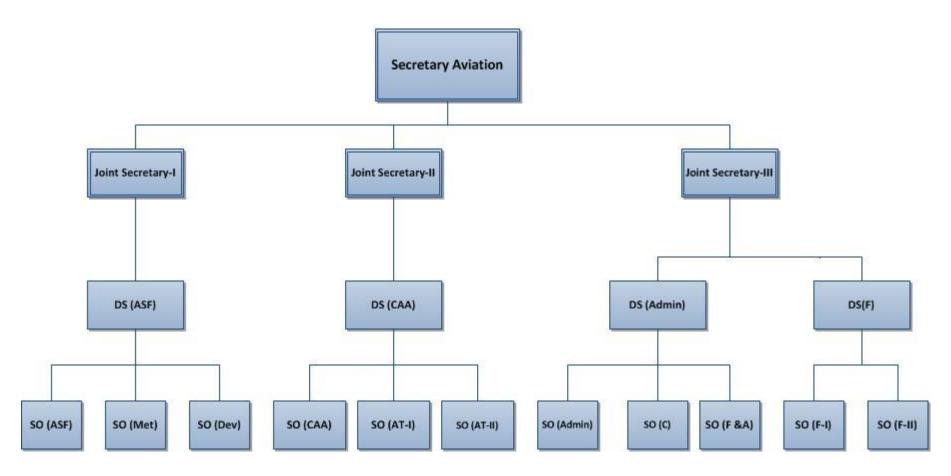
- (1) Samad Air Charter and Flying School Licenses
- (2) Pelican Aviation Flying School License

In compliance with the instruction of SQMS, the relevant SOPs have been converted into CAAO. In this regard, CAAO-002-ATNR-1.0 titled "Air Transport Licenses by Federal Government and DG CAA" has been incorporated in full letter and spirit of the law.

As directed by DAT & ER, activities of General Sales Agent have also been incorporated in the existing ANO-002-ATNR-2.0. Upon approval of Director General, CAA, the same will be disseminated to all GSAs for its implementation in full letter and spirit.

In compliance with the DG's instructions, a Software for "online approval for issuance / renewal of licences" has been developed. Upon final approval from IT Section, the same will be utilized practically.

Organogram





Civil Aviation Authority (CAA)

PAKISTAN CIVIL AVIATION AUTHORITY

Introduction

Pakistan Civil Aviation Authority was created on 7th December 1982 under the Pakistan Civil Aviation Authority Ordinance No.XXX of 1982. The Authority develops, maintains and manages all Civil Aerodromes throughout the country. It is controlled by the Government of Pakistan through the Ministry concerned i.e. Aviation Division.

VISION "Be a world class service provider in aviation industry"

MISSION "Provide Safe, secure, efficient and best-in-class aviation services to the stakeholders"

1. Achievements of Human Resources Directorate

HR Directorate is concerned with policies and practices that relate to the workforce of the organization. The core activities that HR Directorate carries out are Recruitment & Selection, Training & Development, Career Planning & Performance Management, Employees Relations, Rewards & Recognition, Medical and Compensation & Benefits of employees.

The main objective is to transform HR Directorate of Pakistan CAA into one of the leading HR role models in the aviation industry, besides playing the role of a strategic partner in the continual improvement of CAA.

The achievements made are as under:-

Talent Management (Career Planning & Reward and Recognition) Branch

a. Officer Promotion:

Considering the merit and suitability and availability of vacancy, following 283 Nos. of officers and 1027 Nos. of staff were promoted during the year 2016-2017 detail as follows:

Pay Group	Promotions
¹ EG 07	46
EG 06	09
EG 05	23
EG 04	81
EG 03	19
EG 02	105
Total	283

¹ EG: Executive Group

b. Staff Promotion:

Pay Group	Promotions
² SG 11	216
SG 09	06
SG 08	154
SG 07	15
SG 06	179
SG 02	457
Total	1027

c. Transfer of Service (Re-Mustering):

Apart from the above promotions, to further facilitate officers from EG-01 to EG-06, applications were also invited for re-mustering of trade. By following the criteria of qualification, experience, vacant positions and analyzing service records, the numbers of re-mustered officers are as follows:

Executive Group	No. of Officers
EG-06	01
EG-05	06
EG-02	03
EG-01	38
Total	48

14 Officers were awarded DG's Commendation Certificates on the occasion of 34th Anniversary of PCAA i.e. 7th December, 2016

Recruitment & Selection

Appointments

Merit based appointments is the foundation for strengthening the organization to meet all sort of challenges and sustaining itself in future as well. HR directorate is proud to state the fact that all the appointments made in 2016-2017 were purely on merit, and the same will be followed in future too. Appointments in following cadres were made through open advertisement in order to keep the operations of organization running at optimal level in compliance with the ICAO requirements:

² SG: Staff Group

Sr. No	Adv No.	Post Position	Number of Appointments made	Type of Appointment
1.	09/2016	Flight Inspector Pilot (EG-07) (06 position on merit) Contract : 02 years (Extendable)	5	Contract
2.	10/2016	Assistant Director Contract Management (EG-01) (01 position on merit Flight Inspector Pilot (EG-07)	1	Contract
		(04 positions on merit) Contract: 02 year (Extendable)	1	Contract
3.	11/2016	Deputy Director Interior Design (EG-03) (02 Position on Merit) Contract: 02 years (Extendable)	2	Contract
4.	13/2016	Joint Director Licensing (EG-05) (Merit-02) Contract: 02 years (Renewable)	2	Contract
		Civil Draughtsman (Auto CAD) SG-07 (Merit-01) Contract: 02 years (Renewable) Joint Director Design & Standards (EG-05) (Merit-01) Contract: 02 years (Extendable)	1	Contract Contract
5.	14/2016	Additional Director Accounts (EG-07) (Merit-01) Contract: 02 years (Renewable) Additional Director Aero Medical (EG-07) (01 position on Merit) Contract: 02 years (Renewable) Joint Director Air Traffic Control (EG-05)	1	Contract Contract
		(03 position on Merit) Contract: 02 years (Renewable)	1	Contract
		Additional Director Electrical / Mechanical (EG-07) (01 position on Merit) Contract: 02 years (Renewable)	1	Contract
6.	15/2016	Additional Director Finance (EG-07) (Merit-01) Contract: 02 years (Renewable) Additional Director Civil (EG-07)	1	Contract
		(01 position on Merit) Contract: 02 years (Renewable)	1	Contract
7.	01/2017	Project Director Allama Iqbal International Airport Expansion Project (EG-09) (01 position on Merit) (Under PC-I of AIIAP Expansion Project Assistant Director Civil (EG-01)	1	Contract
		(Merit- 04) Regular	4	Regular

8.	02/2017	Joint Director Air Traffic Control (EG-05) (03 position on Merit) Contract:: 02 years (Renewable)	2	Contract
9.	03/2017	Deputy Director Finance (EG-03) (01 position on Merit) (PSDP Scheme at IIAP Islamabad	1	Contract
10.		Joint Director Airport Services (Hospitality Management) (EG-05) (Merit-01)	1	Contract

Training & Development

i) In 2016-2017, 1135 employees have been given trainings through the following main sources available in CAA:-

Training Sources	No. of trainees
Foreign Training	401
Inland Training	300
CATI	435
Total	1135

ii) Internships opportunities provided to 570 students from various recognized Universities / Institutes in multiple disciplines.

Inquiry Cell Branch

HR (Inquiry Cell) has completed the following tasks:-

Sr. No	Description	Proceedings Completed	Proceedings under process	Total
a)	Board of Inquiries	24	13	37
b)	Fact Finding Committees	19	04	23
c)	Formal / Informal Investigations	03	-	03
d)	Committees	03	05	08
	Total	49	22	71

Business Support Services Branch

- (a) **Establishment of Complaint and Business Centres at HQ CAA:-** Complaint Centre established in 2014 is running satisfactory and all complaints of electric and maintenance works at HQ CAA are being handled promptly by the concerned offices.
- (b) **Storage of Record at HR Department:-** Record is well maintained in Record Room of HR Department well maintained since its establishment in 2014.
- (c) Celebration of 70th Independence day of Pakistan:- HQ CAA celebrated the 70th Independence Day of Pakistan and Flag Hoisting Ceremony was held at HQ CAA. National Flag was hoisted by Additional Director General CAA. The Ceremony was attended by all Officers and staff of HQ CAA.
- (d) **Celebration of 34th Anniversary of CAA:-** 34th Anniversary of CAA was celebrated on 7th December 2016 in a befitting manner at HQ CAA as well as at airports.
- (e) Achievements of OIC Residential Area of Jinnah Int'l Airport (JIAP):- A full fledged section under the command of OIC Residential Area was established and following achievements have been made:
 - i) Demolition of 11 illegal constructed houses adjacent to CAA Barracks No.324 as per Govt. Audit Observation PD (31) for the year 2014-15.
 - ii) 18 houses have been vacated from retired CAA employees. 04 from other than CAA employees.
 - iii) 33 illegal J-Type huts vacated and demolished.
 - iv) 10 Nos. Dhobi Sheds (barracks) vacated/demolished.
 - v) Issued notices to the resident of CAA colony to vacate and demolish the extra rooms illegally made by the allottees is continuous process.
 - vi) Removal of Pet animals from CAA houses is continuous process.
 - vii) Permission given for social gathering / marriage at CAA ground and issuance of permission to Food Stuff suppliers in CAA residential area. Issued entry passes to the stuff suppliers Rs.46,800/- collected from Stuff Suppliers and Rs.522,000/- collected from resident who were permitted for social gathering / marriage at CAA ground.
 - viii) Cleaning of Residential Area through the outsource contractor. Dumping the garbage at the designated place by Local Govt. Reconstruction and repair of Kuchra kundies. Cleaning of CAA Rainy Nala fortnightly. Monthly fumigation in Residential Area. Killing of stray dogs as and when required.
 - ix) An amount of Rs.50,00,000/- (outstanding amount) have been recovered from CAA serving / retired and other than CAA employees residing at CAA Colony.
 - x) Water Purification Plant installed in 72 Flats, installed Market area Tank No.4 and Booster Area.
 - xi) Streamline the CAA Graveyards.

- xii) Electric supply were disconnected due to different reasons i.e. non-payment / non-vacation of houses after retirement.
- xiii) 02 Court cases cleared from Sindh High Court 01 Sr. Civil Judge Malir. Two cases are in Sindh High Court and 02 court cases are in lower court.
- xiv) Ladies / Gents Parks: two new parks are in process and two parks are in revamping.
- xv) One Bungalow (A-1) and CAA Qrts E-Type, G-type, F-type and H-type and also barracks type accommodations have been declared dangerous with the approval of Director General CAA. The above houses/barracks will be demolished after complete vacation.
- (f) **Establishment of HCM in HR Department:-** Human Cloud Management has been established at HQ CAA to arrange and keep the record in email system.
- (g) **Procurement of Furniture:-** An amount of Rs.35 million was sanctioned for procurement of furniture for offices at IIAP Islamabad, JIAP Karachi, Multan, Bhawalpur, Faisalabad, Gilgit and Chitral Airports and also arranged furniture items for Departments/Branches at HQ CAA.
- (h) **Donations:** Following amounts were sanctioned as donation for various Sports activities.

S. #	Name of Organization	Amount
(a)	Airmen Golf Club &	Rs.400,000/-
	Recreational Park Karachi	
	Total :-	Rs.400,000/-

Rs.56,000/- was also given as donation to IBP School of Special Education Karachi to support the adopted children of IBP School to meet one year expenses.

- (i) **Establishment of Cricket Ground at JIAP:-** Cricket ground has been established at JIAP Karachi with full fencing around the ground
- (j) **Expenditure control of Stationary and Printing Charges:** An Expenditure of Rs.10 million was incurred on purchase of Stationary Stores in the fiscal year 2016-17 through efficient management and effective control by Stationary Section

Organizational Development Branch

(a) **Compilation of Macro and Micro Level Objectives:** Compilation of macro and micro level objectives and Task & Targets of all Directorates in order to link them effectively with performance appraisals, so that the performance management issues can be resolved and employees can be positively engaged consequently resulting in increased performance.

- (b) **CAA Service Regulations:** With the promulgation of new CAA Service Regulations-2014, policy and procedures are being revised and updated in order to ensure compliance.
- (c) **Oracle Capital Human Management:** Implementation of Oracle Human Capital Management Module Phase II is in process and employees are being trained to use/support the system for bringing efficiency and improvement in system.
- (d) Consultancy Services: Services of a consultant have been engaged to devise a strategic plan for outsourcing non core functions after identification of outsource able units or functions of PCAA that will not only enhance effectiveness of these functions/units but also bring efficiency. Consultant has submitted the initial draft of outsourcing policy for review and comments. However, the process of studying CAA functions and operations at various locations throughout the Pakistan is mandatory for practical implication of the policy, Consultant has visited major airports for this purpose and compiling his report. Other locations will be visited soon to study the operations and access outsourcing requirement.
- (e) Outsourcing of Facilities: Facilities such as Janitorial & Cleaning, Horticulture & Landscaping, Electrical & Mechanical at major Airports including JIAP Karachi, AIIAP Lahore, BBIAP Islamabad etc have been outsourced resulting in cost saving. Now the focus is Islamabad International Airport, as its inauguration is planned in near future and process of resource allocation has been initiated for operational requirement in line the development work completion timelines. One of the core strategies for successful execution of the project would be efficient/competent human resource allocation SO. along induction/deployment of regular employees in core functions, outsourcing of non-core functions have been initiated that not only increased efficiency but also saved cost and other resources.

Personnel Management Branch

Disciplinary actions taken against both Officers and Staff during the financial year 2016-17

S No	Disciplinary Actions	Officers	Staff	Total
1	Removal from Service	02	06	08
2	Dismissals	00	00	00
3	Suspensions	00	07	07
4	Terminations	00	00	00
5	Compulsory Retirement	01	01	02
6	Demotions	03	01	04
7	Censured	04	12	16
8	Withholding of Increments	02	10	12

9	Letter of Advice	23	22	45
10	Letter of Displeasure	18	02	20
11	Warning Letter	16	82	96

2. Achievements of Economic Regulations Directorate

(a) Consumer Protection

Number of consumer complaints handled against various Airlines / stakeholders during the period July 2016 – June 2017:-

PIA : 26
Airblue : 22
Shaheen : 16
Foreign Airlines : 31
Other Stakeholders : 08

TOTAL : 103

(b) Economic Oversight

- Conducted Financial Analysis of the operators, seeking renewal of their Regular Public Transport, Charter, Aerial Work or Flying School licence.
- Assessed financial feasibility submitted by new applicants seeking issuance of Regular Public Transport, Charter, Aerial Work and Flying School licence.
- Implemented relevant portion National Aviation Policy (NAP) 2015.
- Prepared a report on financial and operational analysis of Pakistani Airlines.
- Prepared a report on financial and operational analysis of Pakistani Charter Operators.
- Conducted Seminar on NAP-2015 to obtain further comments / views from RPT & Charter Operators.
- On the instructions of Aviation Division, invited comments / suggestions from all the stakeholders of the Aviation Sector of Pakistan for improvement of National Aviation Policy.
- Prepared draft National Aviation Policy in light of the comments for the consideration of the Competent Authority.

(c) Statistics Section

- Preparation of PCAA Statistical digest from 2010 to 2016 is completed and under process of publications.
- The following air traffic was handled during the year 2015-16 and 2016-17.

Traffic	2015-16	2016-17 *
Commercial Aircraft Movements (Number)	154,168	157,117
Total Passenger Handled (Number)	20,711,188	21,058,361
Total Cargo Handled (Metric Tons)	349,634	259,619

Total Mail Handled (Metric Tons)	13,885	14,151
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^{*} Provisional Data

3. CAA Annual Development Programme (ADP)

CAA Annual Development Programme (ADP) for the fiscal year 2016-17 envisaged an overall allocation of Rs.35,821 million, of which major provision of Rs. 21,974 million was allocated for Islamabad International Airport Project (IIAP), Rs. 362 million for up-gradation of Multan International Airport (Phase-I & II), Rs.7,164 million for Re-construction/Up-gradation of airport Projects/Runways/Radar/Nav-Aids, Security / Technical Equipments and Rs.6,321 million for other Misc. development requirements of CAA. Total 78% of funds utilized against ADP 2016-17 for Rs.35,821 million till 30th June, 2017.

a) Islamabad International Airport (IIAP) At Islamabad

- i. The New Airport site is located on 3,289 acres of land at Pind Ranjha near Fateh Jang, approximately 25 Kms from Zero- Point, Islamabad and 23 Kms from Saddar, Rawalpindi. Two road links are under construction from motorway by NHA & will shorten the driving distance to 25-30 Minutes.
- ii. The airport is being developed as a state-of-the-art facility at par with international standards to serve as a major hub for all aviation activities in the region. The new airport facility, which is the first green field airport in Pakistan, shall comprise of a contemporary state-of-the-art passenger terminal building (PTB), air traffic control tower, runway with a provision of a secondary /emergency runways, taxiways, aprons and cargo complex together with all the necessary infrastructure and ancillary facilities.
- iii. The IIAP would cater to the requirements of latest generation of modern passenger aircraft including A380. The IIAP has a modular design to handle 9 million passengers per annum and 150,000 metric tons cargo per annum, with provision for enhancement of capacity upto 25 million passengers per annum. Being a modern airport, a significant portion of the land has been earmarked for commercial purposes such as duty-free shops, hotel and convention centre, malls, business center, food courts, leisure and recreational facilities etc.
- iv. The new airport is envisaged to be a modern landmark structure symbolic to represent twenty-first century Pakistan, as it will be the diplomatic and business gateway to Pakistan through the capital city of Islamabad.
- v. In line with master plan for current development, the construction of IIAP Project is categorized in three broad phases i.e.
- vi. **Phase-1: Airside Infrastructure:** which includes main runway, emergency runway, taxiways, apron for parking 28 aircrafts, state lounge, cargo & aircraft maintenance aprons, hydrant refueling system and airfield lighting system.
- vii. **Phase-2: Passenger Terminal Building (PTB):** which includes the main building spread over an area of 162000 SM with sophisticated electro mechanical systems including baggage handling system, HVAC, stand by generators, lifts,

escalators, travelators, fire alarm and fire protection system, 15 Nos passenger boarding bridges with all allied facilities and communication systems i.e. PABX LAN, wireless LAN etc.

viii. **Phase-3: Landside Infrastructure** which includes departure level bridge, car park for 2200 cars, road network, water works, sewerage treatment plant, fire fighting system, storm water drainage, cargo shed and landside buildings/infrastructure i.e jamia mosque, custom & cargo building, aviation building, police station and irrigation network etc.

The work on phase-1 has been completed and on the other phases is near to completion. The airport construction is expected to be completed by 25th December, 2017 with testing, commissioning of systems & operationalisation activities to follow immediately after completion of works. Besides the above, a dedicated rain water harvesting dam at Ramma has been completed to meet the current water requirements of the airport. Another rain water harvesting dam at Kasana will also be built to meet the future needs of water of this airport.





b) Expansion of Allama Iqbal International Airport Lahore

The existing terminal building at Allama Iqbal International Airport (AIIAP) Lahore was inaugurated in 2003. AIIAP Lahore is the second busiest airport in the country. The existing capacity of Terminal Building is for handling 5 million passengers per annum. Since the current annual passenger traffic has reached to its peak i.e 5 million, expansion of the terminal facility for 25 million plus passengers per annum has been planned by PCAA..

For detailed planning, designing, documentation, and supervision of construction works, services of a Consultancy Firm M/s. TYPSA of Spain – AsCE Lahore (JV) have been hired by PCAA.

PC-1 for Phase-1 amounting to Rs. 43. 6 Billion was approved by CAA Board in November, 2016.

The scope of work includes:-

- i. Modernization of Access Road (work awarded and in progress).
- ii. Multi- level Car Parking (work awarded and in progress).
- iii. Main Terminal Building Expansion (to be executed on EPC basis conceptual design prepared and bidding process initiated).

The project is planned to be completed in 2021.



c) Up-Gradation of Multan International Airport (MIAP)

The Multan Airport up-gradation project has been under taken CAA Pakistan on self-financing basis. The construction of MIAP project was categorized in two phases as under:-

i) Phase-I: Airside Infrastructure

ii) Phase-II: Construction of Terminal Building & Allied Facilities

PHASE-I: UPGRADATION OF AIRSIDE INFRASTRUCTURE

The work on rigid runway (10500 ft x 150 ft) with 25 ft flexible shoulders for E-category aircraft (B- 747 & B- 777) and rigid apron comprising of four aircraft parking was completed in the year 2010 and since then the same has been in use CAA. The Honourable Prime Minister of Pakistan inaugurated accordingly. Phase-I Comprised of the following:-

- a) Airside Pavement (runway, taxiways, apron and CAT-1 AFL System)
- b) Fire Station
- c) Air Traffic Control Tower (ATC)
- d) ATC equipment

PHASE-II CONSTRUCTION OF TERMINAL BUILDING & ALLIED FACILITIES

The work on new state if the art terminal building with allied facilities was completed in March, 2015 and inaugurated by the Prime Minister of Pakistan on 9th March, 2015 and since then the flight operations are being handled from new terminal building. Later on two additional boarding bridges were approved CAA Board and completed in the fiscal year 2015-16 and operational w.e.f. June, 2016. Phase-II comprised of the following:-

- a) ASF / Misc Buildings
- b) Terminal Building & Allied facilities
 - Covered Area 30,700 sqm
 - One and a half $(1\frac{1}{2})$ level concept.
 - Separate facilities for international and domestic passengers, by handling of one million passengers / annum.
- c) Landside and allied E&M Works
 - New Cargo Terminal handling 5000 tons/annum (by 2024-25)
 - All related services to Terminal Building including road network, horticulture, water supply, sewerage treatment/recycling, drainage, horticulture, external power supply / distribution, plumbing, E/M, HVAC, communication, etc.
 - Landside Car Parking
 - Officers & Staff Mess, CAA Residences
- d) Miscellaneous works i.e furniture, interior art work, landscaping
- e) 2 x Additional PBBs (Moveable portion)
- f) 2 x GPU and 2 x VDGS
- g) Construction of 2 x PBBs (fixed portion) and connecting passages

DETAILS OF ACHIEVEMENTS OF MIAP FOR FINANCIAL YEAR 2016-17

(a) Procurement/installation of ATC Equipment = Completed and Operational

(b) Elevator ATC Tower = -do-

(c) Terminal Building & allied facilities = -do-

(d) Landside and allied E&M Works = -do-

(e) 2 x Addl. PBBs (moveable portion) = -do-

(f) 2 x GPU and 2 x PBBs (fixed portion) = -do-

(g) Construction of 2 x PBBs (fixed Portion) = -do-

and connecting passages





d) New Gwadar International Airport (NGIA) Project

The Government of Pakistan has accorded approval for the Establishment of "New Gwadar International Airport (NGIA)". The NGIA project is part of overall infrastructure development of Balochistan. The airport will be developed as a Greenfield airport with all modern facilities for safe operation, passenger comfort and convenience. Original PC-I amounting to Rs.7.5 Billion was approved in January, 2010.

Land acquired for the NGIA project by CAA is located 26 km east of Gwadar, just off the Makran Coastal Highway. The airport site is spread over an area of 4300 acres.

Package-A Site Protection Work has been completed, which includes Security Fence, Perimeter Track 18.1 Km and Watch Towers.

SALIENT DESIGN FEATURES OF THE PROJECT:-

- Main Runway Code-4F: 3,658 m (12,000 ft) x 60 m (200 ft) with 7.5 m (25 ft) wide paved shoulders & 305 M stop ways on both ends (with provision for Future Second Runway at a distance of 760 m to the north of Main Runway).
- Link Taxiway: 23 m wide with 10.5 m wide paved shoulders.
- ➤ Apron Parking for Two Code C (B737, Airbus, A320, 200) and Two Code E (B777, A330/340) Aircrafts.
- > Cat-I Airfield Lighting, Apron Lighting, Navigational Aids
- ➤ Passenger Terminal: capacity of 350 International pax + 150 Domestic pax at peak hours.
- **Cargo Terminal:** Initial handling capacity of 30,000 tons/yr.
- **Car Park** for 300 vehicles.
- > ATC, FCR, Fuel Farm.
- > Other associated buildings and infrastructure.

Revised PC-I

The Executive Committee of the National Economic Council (ECNEC) considered the Revised PC-I summary dated 11th January, 2015 submitted by the Ministry of Planning Development & Reforms on "New Gwadar International Airport (NGIA) Revised" and approved the project subject to the condition that it should have the landing facility for Boeing 777 and Air Bus-A-380 aircrafts at the cost to be rationalized by the Planning Commission in consultation with the Aviation Division.

Accordingly CAA through Aviation Division submitted the rationalized cost of Rs.22.947 Billion alongwith comparative analysis of various options.

Planning Commission has approved Revised PC-I with reduced of Rs.22.247 Billion (Reference Ministry of Planning Development & Reforms Office Memo No.2(10)PIA-III/PC/2014 dated 10th July, 2015), accordingly Admin Approval has been issued by Aviation Division vide letter No.3(3)/95-P&D dated 23rd July, 2015.

Updated Status

NGIA Project was inducted as early Harvest Priority Project of CPEC Program in January, 2014. Frame Work Agreement for the construction of NGIA Project on EPC (Engineering, Procurement & Construction) basis by the Chinese contractor have been signed between Government of Islamic Republic of Pakistan and Government of Peoples Republic of China on 20th April, 2015 during the high level visit of the Chinese President.

During Pak-delegation's meeting with the reps of MOFCOM, in Beijing China from 24th to 25th August, 2015 wherein, among other issues, it was agreed that construction of New Gwadar International Airport (NGIA) will be funded through 100% grant instead of soft loan as decided earlier by Chinese side.

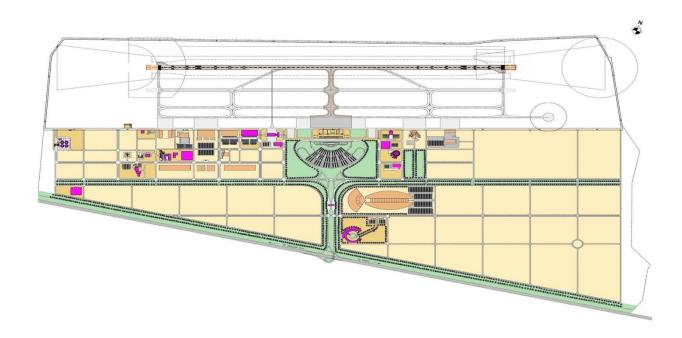
A delegation of Shanghai Civil Aviation New Era Design & Research Company Limited conducted the "Feasibility Study of NGIA Project Execution" from 7th March, 2016 to 23rd March, 2016 at Gwadar. Chinese Technical Team Report received in June, 2016 for the consideration of Pakistan Side and Pakistan Civil Aviation Authority. The comments and observations of CAA were conveyed to the Chinese side. Minutes for "Onsite Feasibility Study of NGIA Project Execution" have been signed both sides on 19th August, 2016.

Government of People's Republic of China has agreed to help Pakistan Implement the New Gwadar International Airport Project under Chinese Grant Assistance.

The issue for delay in Project execution has been discussed in detail with the delegation of NDRC on 11th and 12th July, 2017.

Project Completion Time

Construction of NGIA Project is estimated to be completed in 36 months after commencement.



e) Expansion and Renovation of Bacha Khan International Airport, Peshawar

The project will have direct benefits to the passengers using the facility. The expended terminal facilities will reduce service time and improve quality of services due to following factors:

- Improved Level of Service
- · Improved and stable flow and processing
- Reduction of Traffic congestion
- Reduction of process time at Check-in
- Reduction of process time at Immigration
- Reduction of queues

PCAA would act as an executing agency as well as sponsoring agency. BKIAP Peshawar is located in Peshawar, which is Provincial Capital of KPK. It is the Fourth busiest airport of Pakistan. The project is fully being funded by the Civil Aviation Authority (CAA).

The Expansion of facilities at BKIAP envisage provisioning of the following facilities:

- a) Original Cost 1896.007 (M)
- b) Revised Cost 2505.944 (M)
- c) Expansion of Passenger Check-in area for International Passengers.
- d) Expansion of International Departure Lounge area and increase in seating.
- e) Expansion of Immigration area (Arrival & Departure) and increase in processing counters.
- f) Expansion of International Baggage Claim area and increase in Claim Belt Length
- g) Increase in number of Counters in Domestic Check-in area.
- h) Provision of facilities for Handicapped Passengers
- i) Provision of CIP Lounge facility in International Wing.
- j) Extension of Executive Lounge to have additional spaces for processing and enhance seating capacity.
- k) Provision of Passenger Boarding Bridges.
- 1) Provision of Advance Visual Docking Guidance System.
- m) Renovation and refurbishment of Terminal Building.

Total 47.30% Physical Progress has been achieved. The project is scheduled to be completed in 2017. The status of various packages of the project is given below:

•		

S.No.	Work Description	Latest Progress / Position
1	Domestic Terminal	Construction work in progress. The
	(Block-I)	Physical progress of the Package till
		August, 2017 is 79.32%
2	Departure Arrival	Construction work has been substantially
	Corridor & Office	(69.36%) completed.
	Corridor (Block-II)	
3	New Int'l Terminal	Construction work in progress of the
	(Block-III)	Package till August, 2017 is 24.73%

4	Renovation of Existing Terminal Building	Work yet to be started
5	Supply of Furniture	Furniture has been delivered on Site.





f) Expansion and Renovation of Terminal Building and Rehabilitation of Fokker Apron and Alpha Taxiway at Faisalabad Airport Objectives of project:

The objectives of project are elaborated as below:

- a) Expansion of airport infrastructure to caters incremental increase in number of passengers and aircraft
- b) To provide the facilities of international standards for the passengers and visitors
- c) To ensure that comfort and convenience of passengers is in line with international standards specified for airports
- d) To comply international rules & Procedures for separation of international and domestic passengers.

Major scope of works:

- i. Expansion of terminal building from 35,600 sft to 52,383 sft as per original scope of work. Now as per revised plans 73,400 sft with one and half level concept and addition of 2 avio bridges
- ii. Provision of master clock system, flight information display system (FIDS), IVR based flight arrival lounge. Provision of 12 check in counters for international and 4 check in counters for domestic briefing area, provision of CCTV, Provision of fire hydrant and fire alarm system.
- iii. Seating capacity of 400 in international lounge and 200 in domestic lounge.
- iv. Construction of alpha taxiway 1200 feet × 75 feet wide with 25' shoulder on each side. (Flexible).
- v. Construction of Fokker Apron (300' × 300') Rigid Apron with 12" thick PQC (Pavement Quality Concrete).

Date of start : 15th Jan, 2016

Date of Completion : 30th October, 2017 (Extended)

Overall Progress : 60% achieved

Financial Progress : (51.96 %) 440.106 Million against 847 Million

of contract price (excluding cost of 2 avio

Bridges)

Revised PC-1 cost : 1168 Million

Major Actual Progress:

Alpha Taxiway : Civil work Completed for Alpha Taxiway.

Fokker Apron : Overall Progress for Apron is 100% completed.

Terminal Building : As per phasing Plan. The terminal building

structure work is completed and finishes work is in progress. Left wing (Int'l Briefing Area is handed over to Airport Management). Central portion of existing building is handed over to

contractor for renovation purpose.



g) Expansion and Renovation of Quetta International Airport Quetta

Pakistan Civil Aviation Authority has undertaken to develop and upgrade Quetta International Airport and to provide modern and state-of-the-art services for passenger facilitation. Airport after expansion will be an iconic building in Quetta in line with International standards.

To design and plan the expansion, CAA hired the services of M/s The Building & Architect, Quetta (local consultancy firm) on 27th January 2015. The consultants were to provide the detailed design, planning & supervision of the project.

M/s Ittefaq Construction Company & United Construction Company (ICC & UCC) JV was qualified as the lowest and successful bidder.

Presently, the contractor is mobilized at site. Work is in progress with full swing at Terminal Building in due coordination with all airlines and functionaries with smooth flight operations.

SALIENT FEATURES

a) Original Cost Rs.1718 (M)

b) Revised Cost Rs.2658 (M) (in hand with consultant)

- c) Construction of new public concourse hall with toilet block and concessionaries.
- d) Expansion of domestic and international Briefing area by utilizing the existing concourse hall.
- e) Provision of 04 new Arrival and 02 Departure conveyor belts.
- f) Shifting of offices from restricted area (mezzanine floor) to the first floor of existing concourse.
- g) Expansion of domestic and international Departure & Arrival lounges.

- h) Provision of 2 Passenger Boarding Bridges with additional link corridor on airside.
- i) Complete Renovation of existing terminal building.
- j) Provision of restaurant at the first floor of proposed concourse.
- k) Provision of 4 Nos. escalators and 4 lifts for vertical movement.
- 1) Providing modern HVAC systems.
- m) Providing complete IT infrastructure.

Total 56% Physical Progress has been achieved. The project is scheduled to be completed in 2018. The status of various packages of the project is given below:-

S. No.	Package Description	Latest Progress / Position
1	Expansion & Renovation of	Expansion & Renovation construction
	Passenger Terminal Building	works in progress. The physical progress
		of the project is 56% as up to August,
		2017
2	Supply of Furniture	Commencement letter has been issued to
		successful bidder.
3.	Up gradation of Fokker apron	Pre-qualification of contractors
	for Jet operations	completed. Tendering in process



h) Construction of Thar Airport near Islamkot/Mithi District Tharparkar, Sindh

The Main object of the subject project is to provide infrastructure support for the development of Thar Coal Field and to facilitate project investors to undertake Coal base power project as decided by the Government, Pakistan Civil Aviation Authority (PCAA) will act as an executing agency of this project as Deposit work and Sindh Coal Authority (SCA) as sponsoring agency. The project is fully being funded by the Govt. of Sindh. The Airport site (approximately 1000 acres) is located near Islamkot / Mithi, District Tharparkar Sindh.

Salient features of the project are as under:-

a. Original Cost
b. Revised Cost
c. Re-Revised Cost
Rs.2273.192 (M)

- d. Runway-7,000'x100' (i/c 900'x150' over runs both ends).
- e. Link Taxiway-800'x75.5'.
- f. ATC setup (on top of Terminal Building).
- g. Fire Fighting Equipment & Services.
- h. Fuel Storage and Supply System.
- i. Fencing & Security.
- j. Terminal Building (50 incoming / outgoing Passengers), Vehicle parking Area, Basic Utilities & Services (TB Area-3000 Sqm).

Total 90.07% Physical Progress has been achieved. The project is scheduled to be completed in 2017. The status of various packages of the project is given below;

Package No.	Package Description	Latest Progress/ Position
1-A	Balance Work of Runway, Taxiway and Terminal Building	Construction work in progress. The physical progress of the Package till Aug, 2017 is 92.105%.
2	Apron and Land Side Facilities	Construction work has been substantially completed and TOC issued.
3	Residential Quarters, Mosque, Fire Station and M.T. Shed	Construction work in progress. The physical progress of the Package till Aug, 2017 is 95%.
4	Supply of Furniture	Pre-qualification under process.
5	Navigation Aids/ ATC Equipments	FAT under process.

4. Achievements of CNS Engineering Directorate

S#	Name of Work	Remarks
i	Procurement of VHF Transceivers	VHF (AM) Transceiver (50 Watts) procured for newly allotted frequencies at Control Towers of various PCAA Airports
		VHF (AM) Transceiver (9 Watts) procured for ground to air and ground to ground communication in control tower and CAA operational vehicles.
ii	Provisioning / Replacement of Digital voice Logging System (DVSL) for ATC and Flight Inquiry Recording.	8 Channels DVLS procured for Cherat Approach, Dalbandin Airport, Pasni Airport and Walton Aerodrome.
iii	Procurement of ATIS	Qty 02 D-ATIS has been purchase for MIAP Multan and FIAP Faisalabad.
iv	Provision of / Replacement of Office Equipment	Various office equipment / Audio Visual equipment i.e (Fax machines, Photocopier machines, Multimedia Projectors, Digital Cameras and Voice Recorders) were procured to equip the PCAA offices.
v	Provisioning / Replacement of UPS / AVRs	Procurement of 3 KVA, 6 KVA and 10 KVA UPSs to provide backup supply support to various equipment / systems.
vi	Integration of AMHS with ATN and other application.	AMHS terminal equipment procured for IIAP Islamabad and other OCCs of Five PCAA Airports.
vii	Provisioning / Installation / Up gradation of EPABX	Up gradation of hardware & software of EPBAX was carried out at CATI Hyderabad. Provisioni9ng of new IP-EPABX made for installation at DGCAA's Secretariat HQCAA.
viii	Up gradation of AMHS equipment.	Up gradation of existing AMHS at Karachi and training Equipment at CATI Hyderabad is in process.
xi	Installation, testing and commissioning of co-mounted PSR & MSSR at JIAP Karachi &AIIAP Lahore	Task completed Both the systems are operational at ACC JIAP Karachi & AIIAP Lahore

xii	Installation Testing & commissioning of 2D & 3D Aerodrome simulators at CATI Hyderabad	Task completed Both the simulators are operational at CATI
xiii	Installation, testing and Commissioning of co-mounted PSR/MSSR at new Islamabad Airport	Installation, SAT & flight calibration completed. Operating satisfactorily
xiv	Installation, testing and Commissioning of ATM at IIAP	Installation & commissioning of new ATM system completed at IIAP Islamabad.

5. Achievements of Engineering Services Directorate (Civil)

Rs. in Millions

4.479 4.639 4.78 18.994
4.78
4.78
18 004
18 004
10.774
28.659
11.059
5.31
29.061
5.528
36.729
7.344
5.094
32.361
5.607

15	Construction of Fire Station / Garage new Striker Vehicle adjacent to apron at Zhob airport.	8.796
16.	Construction of over head tank for drinking water and river water supply at CATI Hyderabad.	9.55
17.	Construction of Fire Garage at CATI Hyderabad.	9.356
18	Improvement of external sewerage system at CATI Hyderabad	6.463
19	Provision of cement concrete Beds in Storm Water Drains to avoid rapid growth wild bushes apron area at JIAP	6.494
20.	Improvement of Pavement useful life of runway 07R – 25L and old apron Bay No.61 to PIA Engineering area and Wide Body Hanger area through Pavement Treatment JIAP Karachi.	10.97
21.	Development of Infrastructure for Sewerage Water Supply to Horticulture work along Runways, Taxiways and Apron at JIAP Karachi.	35.327
22	Extension in Radar building for up-gradation of PSR & SSR system in ACC at JIAP Karachi.	21.014
23	Construction of Glide Slope building and allied works Runway 25L at JIAP Karachi	5.147
24.	Improvement of Pavement Surfaces at Panjgur airport (Crack Filling & Surface Sealing of Runway & Apron)	11.787
25	Construction of new DVOR Building at Panjgur airport.	23.295
26	Improvement of Pavement Surface of Runway at Gwadar Int'l airport (Re-carpeting of Runway)	
27	Up gradation of ILS from CAT-II to CAT-III (B) operation at AIIAP Lahore. (a) SH: Addition / alteration of existing vault rooms 1 & 2 to accommodate CAT-III (B) Installation.	5.719
28.	Replacement of Reflective Sign Boards AIIAP Lahore	5.999
29.	Provision of gents toilets in Concourse Hall level I & II AIIAP	6.451
30	Construction of security wall and gates to segregate airside and landside area at MIAP Multan	5.637
31.	Construction of solid block masonary wall alongwith perimeter fencing at JIAP	38.87
32	Protection of CAA land at BBIAP Islamabad	18.312
33.	Misc. Civil works for Aerodrome certification of Nawabshah airport.	7.052
34	Construction of Boundary Wall from "PSO to Western Side" and "ASF Camp to Eastern Side" of the airport at Turbat airport	24.304
35.	Construction of Boundary Wall (7000 Rft) at the perimeter D I Khan airport	18.666
36	Construction of additional (03) three Lanes at the Entry of Arrival and Departure of JIAP	7.264

6. Achievements of Engineering Services Directorate (E&M)

(Rs. in Millions)

	(RS, III 1		
S #	Name of Work	Cost	Status /
1	Durvisian of state of the state	20.070	Remarks
1	Provision of state-of-the-art cleaning	39.979	Provided two street sweepers to
	system for roads / streets at major		New Islamabad Int'l airport and
	airports by providing Street		one each to Lahore & Karachi
	Sweeping machines	26.552	airports/
2	Operational preparedness for	26.572	Provided three basic life support
	medical emergencies through		ambulances and two advanced
	provisioning of BLS/ACLS		cardiac life support ambulances to
	Ambulances for new Islamabad		New Islamabad airport.
	airport	24.500	D :116
3	Sustainability of horticultural	24.560	Provided four water bowzers for
	activities at New Islamabad airport		New Islamabad airport.
	through provisioning of water		
	bowzers of total capacity 40,000		
1	Ltrs. Facilitation in maintenance and	00.072	Drawided Five electric editors 100
4		99.872	Provided Five electric scissor lifts
	upkeep of elevated areas of the		& seven articulated lifts to New
	airport through provisioning of aerial		Islamabad airport and two electric
	working platforms at Karachi &		scissor lifts to Karachi airport.
	New Islamabad airport.	10.200	Durani da di danca ada dani a salfa santa da
5	Provisioning of Inter-terminal	10.290	Provided two electric golf carts to
	transport facility for elderly and		Karachi and six to New Islamabad
	physically challenged passengers for		airport.
6	Karachi and New Islamabad airport/ Facilitation in general cleaning of	34.703	Provided one electric glass
0		34.703	
	PTB at New Islamabad airport.		cleaning system, one escalator step
			cleaning machine, twelve walk
			behind scrubber driers and eight ride-on scrubber driers to New
7	Provisioning of mechanized baggage	12.250	Islamabad airport. Provided five electric trolley
'	trolley retrieval system for passenger	12.230	pushers to New Islamabad airport.
	facilitation at New Islamabad		pushers to frew islamadad amport.
	airport.		
8	Provisioning of advanced equipment	36.705	Provided two runway
	for aircraft guidance and safe	50.705	painting/marking machine, two
	maneuvering at runways and		runway closure marker lights, one
	taxiways of New Islamabad airport		tandem vibratory road roller & six
	and the state of t		follow-me vehicles to New
			Islamabad airport.
			isiamaoaa amport.

9	Improving energy efficiency and passenger traffic flow inside terminal building through provisioning of modern passenger conveying systems at Karachi and Lahore airport	87.725	Replaced one escalator & elevator at Karachi airport and four elevators at Lahore airport.
10	Improving airport's capacity to handle passenger baggage at Multan airport.	19.569	Extended arrival baggage carousel at Multan airport.
11	Energy conservation in CAA buildings through improvement of electrical infrastructure & provisioning of energy efficient inverter air conditioners at Karachi terminal building and CAA offices.	18.660	Improved AHUs & replaced old air air conditioners with inverter ACs at CAA offices and Karachi airport.
12	Up gradation of portable water facility for passengers and officials at Karachi airport.	5.181	Replaced deteriorated deep well turbine pumps at drinking water boosting station.
13	Improvement of visual air navigation system	17.803	Additional aeronautical lights provided at Bhawalpur airport to improve navigational guidance.
14	Providing advance aircraft parking system for safe and efficient aircraft processing at the airports.	114.552	Qty-10 Advanced Visual Docking Guidance System (AVDGS) have been installed at JIAP Karachi.
15	Provisioning of safe and reliable ground power supply to parked / docked aircraft at the airports.	164.991	Qty-09 Advance Aircraft Power Supply Systems have been installed at JIAP Karachi.

7. Achievements of Finance Directorate

Estimated position for the Financial Year 2016-17 and Actual 2015-16

(Rs. in Millions)

	Actual 2015-16	Estimated/Unaudited 2016-17
Income / Revenue	66,087	71,548
Expenditure	43,713	37,347
Surplus Before Taxation	22,374	34,201
Taxation	5,428	10,602
Surplus After Taxation	16,946	23,599

8. Information Technology Branch

The achievements made by IT Branch during the financial year 2016-2017 are appended below:

IT Infrastructure for IT Operations

- a) Procurement of Core Switches for upgradation of CAA Network.
- b) Procurement of Enterprise SAN for upgradation of Data Storage Capacity for CAA.

End User IT Facilities

- a) Procurement of end user Computer equipment (i.e. Desktops, Laptops, Printers, Scanners).
- b) Extension of video conferencing facility to Quetta, Faisalabad, Multan & IIAP Airports.

Software Applications for IT Operations

- a) Aeronautical Billing: Integration of Aircraft Landing data with ATM.
- b) Web Portal for CAA Board Members for view / download of documents related to Board meetings.

9. Achievements of Airworthiness Directorate

TASK	NUMBER
Certificate of Registration	20
Certificate of Airworthiness (Issue/Renewal)	162
Aircraft Maintenance Engineer's License (Issue/Renewal)	192
Maintenance Schedule	27
Welder's Approval	10
Supervision of Major Checks / Heavy Maintenance	104
Certificate of Organization Approval (Issue/Renewal)	109
Approval of Technical Handling Agencies (Issue/Renew)	36
Investigation, Inspection & Surprise / Spot Check / Ramp Inspection	325
Limited Authorization (Concessions)	168
	Rs.95,620,615
Revenue generated (Rupees)	Plus
	US\$.26,702



Pakistan International Airlines Corporation Limited (PIACL)

PAKISTAN INTERNATIONAL AIRLINES CORPORATION LIMITED (PIACL)

Introduction

Pakistan International Airline is the first and only state airline of Pakistan. It is also one of the earliest airlines of South Asia operating since its inception in 1955. PIA remained the main operator since its founding till the early 1990s, although several private airlines initiated and ceased operations during this time. Presently, PIACL is passing through dire financial state. However, the present government is very keen to make state owned entities self-reliant and financially sound. Efforts are underway by the present government to improve the financial health of the Corporation by reducing its losses through various means and modes. Stringent action is being taken against corruption and mismanagement. Erstwhile PIAC has been converted into a Public Limited Company through an Act of the Parliament, PIAC (Conversion) Act, 2016.

The financial results are as under:-

Particulars	(Rs. In Millions)
Turnover – net	88,997
Operating Cost & Expenses	(120,124)
Other Income	501
Exchange Gain (Loss)	(294)
Finance Costs	(13,159)
Loss before tax	(44,079)
Taxation	(318)
Loss after tax	(44,397)

Presently PIA operates to 50 destinations including 29 international and 21 domestic. During 2016 PIA improved upon its capacity utilization by 15% and seat factor increased from 70.3% to 71.60. International market share increases to 27% against 24% in 2015 whereas domestic share increased to 67% compared with 48% during 2015. Volume of passengers increased by 25% to 5.49 million compared with 4.39 million in 2015.

Vision

To be a world class profitable Airline meeting customer expectations through excellent services.

Mission

Offering quality customer services and innovative products, using state of the art technology, ensuring cost effective measures in procurement & operations and developing safety culture.

Achievements

Following key steps are being taken by PIACL to improve its air service:

a) Fleet Expansion

The decision of induction of fuel efficient narrow body aircraft not only supported the airline to improve its operations but also enabled in bringing efficiency and better control on fuel cost. During last two years there has been an increase in fleet, now PIA has 43 fleets.

The average age of fleet has also been reduced presently to 10 years which will further reduce to 8 years after grounding of above 20 years old A-310.

To meet the growing demand PIA acted prudently to acquire aircraft on wet lease on short term basis which helped greatly in retaining its market share, which were returned back in May 2015.

b) Engineering

Minimize Technical Delays through quality maintenance and fleet availability to improve on-time departures of aircraft.

CAA has granted approvals CAA ANO 145&147 leading towards EASA-147(European Aviation Safety Agency).

Replacement of Seat covers and Carpets on entire PIA Fleet to enhance customer experience.

A project for replacement / up-gradation of Business Class Seats on B777 aircraft has been introduced which will further improve the premium product on long haul routes.



c) Marketing

- Focusing on future performance, PIA is pursuing aggressively to induct fuel efficient narrow body aircraft i.e A320 in order to overcome fleet constraints. As a part of route rationalization process daily flights to Quetta, Peshawar, Multan, Faisalabad; etc. have been resumed along with additional frequencies to Rahim Yar Khan, Bahawalpur and especially to Northern Areas and Balochistan. Upon acquisition of more aircrafts, PIA will certainly avail opportunities to expand its network.
- Additional flights have also been scheduled to increase international / domestic operation on profitable routes with introduction of new routes to BCN and SLL.

- Improved regularity of flight Schedule (90.4% on time departure)
- Much improved cleanliness
- Change in-flight meals menu (change every 3 months)
- A flight after every 3 hours on domestic primary route

d) Passenger Handling Services (PHS)

- In order to ensure on-time departures and to avoid delays due security measures, information has been widely circulated through domestic dailies for awareness of passengers.
- PIA has introduced SMS service to inform the passengers about flight schedule. It saves them from any hassle especially when flight is delayed due to some reason.
- A very effective baggage identification system WTR (World Tracer Management) has been introduced through which the misplaced baggage is delivered to the passengers in a very short time.
- Technical Ground Support has been revamped to provide improved service to passengers.

e) Flight Services

- To improve service standard, developmental training of cabin crew in collaboration with Qatar Airways.
- Constant monitoring, assessment of cabin crew on the basis of performance.
- New designer-ware cabin crew uniform

f) Uplifting of PIA Image

- Special emphasis is being given to uplift PIA image in media. Services of qualified professional will be obtained to revamp PIA's media strategy and plan.
- PIA will embark upon an awareness program in media regarding any initiative taken or announcement concerning public interest etc. will be the main features.

g) Rationalization of HR at Foreign Stations

A detailed study was carried out for the rationalization of Human Resource especially at foreign stations. In the light of recommendations steps were taken to rationalize the manpower at foreign stations according to work load. In this regard, retrenchment of more than 100 local employees was accomplished.

h) Evacuation Flights Hajj Operation and Charter Business

- PIA operated special relief flights to Libya and Yemen to evacuate more than 1500 stranded Pakistanis in the War Zones.
- During Pre Hajj Operation 2015 PIA uplifted 55,000 Hujjaj by operating 147 Hajj Flights with 96% punctuality.
- During 2014 PIA's Charter business grew by 50%.



i) Other Initiatives

- In line with Prime Minister's Youth Development Programme, besides Karachi, Training Centres were established at Lahore, Nawab Shah, Swat, Rawalpindi, Peshawar and Quetta.
- Opening of Multan, Faisalabad and Sukkur training centers are under process.
- Implementation of ERP (Enterprise Resource Planning).
- Procurement &Logistics Department of PIA has been completely transformed with maximum transparency and procurement of spare parts from OEMs only.
- PIA is fully adhered to "ZERO TOLERANCE ON CORRUPTION".
- Route rationalization Network expansion
- Cabin Crew trained as master trainers from Qatar Airways
- Cabin Crew; 175 young cabin crew being hired and new uniform being introduced to give PIAC a new vibrant look.
- Central Reservation Control (CRC): is being automated to increase revenue Airline Information Management System (AIMS).
- Roster for pilots and cabin crew is being automated to achieve better crew productivity.

j) Improvement in Product

- New flat bed seats & in-flight entertainment (IFE) are being introduced for 777 aircraft
- Customer friendly Web-Site

k) Revenue Enhancement

- Fleet Expansion Route
- Rationalization Network
- Expansion Code Share System
- Automation Cargo Revenue

• Ancillary Revenues etc

1) Cost Reduction

- Create Lean Organization
- Creation of SBUs
- Financial Discipline
- Debt Restructuring
- Offload Aging Fleet
- Contract Re-negotiation
- Automated Crew Rosters

m) Improvement of Product & Services

- Premier Service
- Boeing 777 Cabin & IFE upgrade
- Cabin Cleaning
- Catering JV
- Web Sales
- Loyalty Program
- Business Class Lounges
- Self Service Check in

Objectives-2018-19

- New network points/increased frequencies
- Fleet expansion -43 aircraft (ATRs, B777s, B737Max/A320Neos, A330s)
- Functioning SBUs (MRO, flight kitchen, TGS, PTC, Speedex)
- Finalizing 2025 plan (Route & fleet planning, resources planning, revenue projection)
- Partnerships and alliances (code shares and SPAs)
- Operational breaks even in Q4 2018



Airports Security Force (ASF)

AIRPORTS SECURITY FORCE

Introduction

ASF was established in 1976 under the ASF Act LXXVII of 1975, initially as the tenth Directorate of the Department of Civil Aviation. After the hijacking of PIA airplane in March 1981, sensing the contradictory requirements of security and facilitation, ASF was separated and in December 1983, was placed under the folds of Ministry of Defence. In 1984, ASF was subjected to Pakistan Army Act. Now, ASF is functioning under Cabinet Secretariat Aviation Division since June 2013.

ASF started its journey by managing security of 7 major airports with a limited manpower of 2870 all ranks. Now, ASF is assigned security of 42 airports (9 x major & 33 x smaller airports) with a total strength of 10278 x all ranks. The summary of airports spread over various parts of Pakistan is given below:-

a. Operational = 24
 b. Non Operational = 18
 Total = 42

Since 9/11 incident and particularly terrorists attack at Old Terminal, Karachi Airport on 08 June 2014, Aviation Security has shot into prominence as airports and commercial aircrafts are considered iconic targets by terrorists. As Aviation Security is the state responsibility, and Government is investing heavily in this field to mitigate threats to Aviation Industry as it has serious political and economic implications.

Aviation Security Challenges

Some of the major challenges to Aviation Security are:-

- a. Asymmetric Warfare.
- b. Variable Terrorist Threats.
- c. Increasing Criminal Activities.
- d. Structural Security Weaknesses.
- e. Technological Shortcomings.
- f. System Vulnerabilities.
- g. Shortage of Manpower
- h. Shortage of Latest Weapon / Equipment.

Vision

Keeping abreast with latest trends in Global Aviation Security and adopting new technologies, developing a highly trained, well equipped and motivated Airports Security Force in order to meet international standards of Aviation Security and to counter growing terrorism and crime against Aviation Industry in Pakistan, reliability is key to Aviation Security and must be developed in following priority:-

- a. Human Reliability
- b. Technical Reliability
- c. Systems Reliability

Core Values

Core values to be inculcated in ASF are:-

- a. Operational Readiness (Proactive Approach)
- b. Zero Tolerance (High Standard of Discipline)
- c. Integrity (No Corruption)
- d. Firmness and Courtesy (Good Public Image)
- e. Continuos Improvement (Quest for Excellence)

Mission

Safeguard Civil Aviation Industry against unlawful interference and ensure security by adopting counter terrorism measures preventing crime and providing round the clock surveillance and security of the perimeter, apron and terminals of all civil / joint user airports.

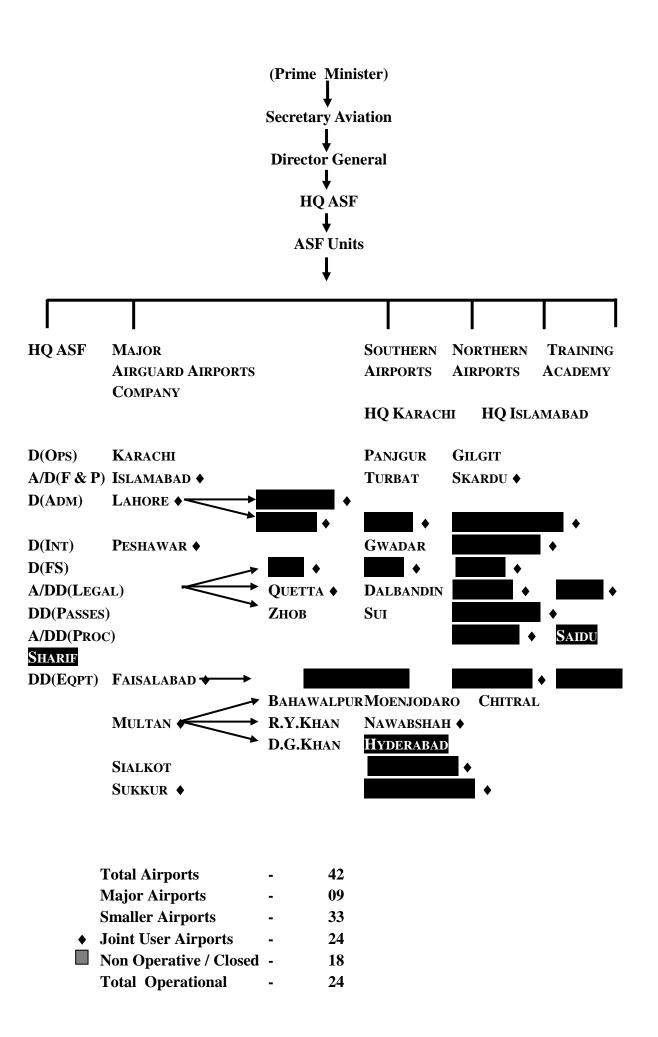
Main Functions

In accordance with the provisions of the ASF Act 1975, the Force is responsible for :-

- a) Ensuring security of all airports, aerodromes and civil aviation installations within the limits of airports & aerodromes and for safeguarding Civil Aviation against acts of unlawful interference or threats of interference.
- b) Ensuring security of all structures, equipment, material and installations belonging to operators and other Government or non Government organizations within the limits of airports and aerodromes.
- c) Ensuring security of aircrafts, passengers, baggage cargo and mail within the limits of airports and aerodromes.
- d) General maintenance of law & order within the limits of airports in conjunction with the Police and taking cognizance of all offences committed at the airports and aerodromes under any law for the time being in force.

Organization

ASF is headed by Director General who articulates his command from ASF Headquarters located at Karachi. The organization of ASF is as under:-



Manpower

a. State of Manpower

		Authorized	Held	Deficient
1)	Uniformed Staff	11944	10278	1666
2)	Ministerial Staff	764	602	162

b. Detail of Activities, Achievements and Progress – 2016 – 2017.

DPC for promotion of Upper Subordinates and Corporals was held on 16th Sep 2016. Detail is as under;

- (1) 43 Inspector (2) S.I 160 ASI (3)266 (4) Sergeant 270 (5)Assistant 02 04 (6)UDC (7)LDC 01
- c. 2041 x Posts have been created in different cadres/ranks to strengthen the NIIA Islamabad vide Cabinet Secretariat Aviation Division letter No.4-25/2015-ASF dated 11thAug 2016 & 4th Jan 2017.

Detail of Recruitment is as under:-

- (1) 02 x Assistant Director (Through FPSC)
- (2) 7 x Inspector (Through FPSC)
- (3) 150 x ASIs
- (4) 1176 x Corporals
- (5) 16 x Corporal Driver
- (6) 03 x Assistant
- (7) 05 x Steno Typist
- (8) 03 x UDC
- (9) 10 x LDC
- (10) 03 x Cashier
- (11) 03 x Electrician
- (12) 05 x MT Driver
- (13) 02 x Plumber
- (14) 01 x N/Qasid
- (15) 34 x Cook
- (16) 12 x Sweeper
- d. **Program of Activities and Targets 2016–17.** Imparting of specialized Aviation Security Training (Short Courses) for Manpower Quality Enhancement of Human Resources in Aviation Security has been

scheduled/targeted during 2017 for strengthening and reinforcement of security at all airports to counter the prevalent threats to Aviation Industry.

	Specialized Courses	Schedule
(1)	Advance Screener Course.	18-09-17 to 03-11-17
(2)	UAC	10-07-17 to 29-09-17
(3)	Weapon Instructors Course.	15-08-17 to 17-09-17
(4)	Drill Instructor Course.	15-08-17 to 17-09-17
(5)	IT Course	06-11-17 to 29-12-17
(6)	ATC Course.	16-10-17 to 19-01-18
(7)	ICAO AVSEC Inspector Course	21-08-17 to 04-09-17

Performance Statistics

In-spite of numerous constraints and limitations under which ASF is working, its performance is a matter of pride and satisfaction for everyone. Following state of recoveries made by ASF during the financial year 2016-17 reflects the state of alertness and vigilance of ASF at airports:-

a. **Recovery of Arms/Ammunition.** ASF staff has recovered following arms/ammunition during course of their duties at various airports:-

S. No	ITEMS	LICENSED / UNLICENSED	QTY
1	Gun / Rifle	Licensed	317
1		Unlicensed	-
2	Revolver / Pistol	Licensed	1132
		Unlicensed	-
2	Ammunition (Rounds)	Licensed	58044
3		Unlicensed	50
4	Magazine	Licensed	2597
		Unlicensed	-

- c. **Recovery of Narcotics.** ASF staff during performance of their duties at various airports recovered 98.531 x KGs Heroin during the financial year 2016-17. The accused passengers alongwith recovered Heroin were handed over to Anti Narcotics Force for legal action.
- d. **Recovery of Currency & Gold.** ASF staff during performance of their duties at various airports recovered 77,39,850 x Pak Rupees, 5,90,308 x US \$, 1,02,500 x UAE Dirham, 4,28,026 x Saudi Riyal, 50 x British Pound, 1,500 x Qatri Dinar, 3,200 x Omani Riyal & 5,000 x Swedish Corona and 15 KG and 131 Tola Gold recover during the financial year 2016-17. The accused passengers alongwith recovered Currency and Gold were handed over to Pakistan Customs for legal action.

e. **Passenger Valuables.** A large number of passenger valuables like cash, credit cards, Jewellery etc were found by ASF at various airports and were handed over to their owners who appreciated honesty of ASF staff.

Airguards Operations

ASF has an Elite Force comprising specially trained and robust men & women for ensuring in-flight security besides augmenting the on ground security measures to foil any attempt of hijackers / terrorists to ensure smooth functioning of aviation industry.

Role of Women in ASF

Besides general security duties, the ASF female staff has been imparted training in the various fields i.e. Unarmed Combat, Martial Arts, Close Quarter Battle (CQB), Intelligence, Screeners, CCTV Operators and Administrative duties etc to provide them equal opportunity of employment in every department of ASF like male staff. The services of female ASF personnel have also been utilized as:-

- a. Airguards, to provide in-flight security.
- b. Instructors, to train other female staff beside the mandatory security duties.
- c. Screeners, to operate the baggage screening machine.
- d. Intelligence duties, to provide pre-hand threat information.
- e. Computer operators.

Training

a. **Training at ASF Academy.** ASF Academy at Karachi caters for all types of training of ASF personnel. 2418 x all ranks were imparted training during financial year 2016-2017 as under:-

	Courses		All Ranks
(1)	Company Commander	=	111
(2)	Promotion Cadre	=	806
(3)	Advance Screener	=	86
(4)	ATC	=	49
(5)	UAC	=	29
(6)	Preparatory Screener	=	149
(7)	Admin	=	87
(8)	Supervisory	=	23
(9)	Basic Sniper	=	16
(10)	Advance Sniper	=	25
(11)	BASC-46	=	942
(12)	OBASC	=	9
(13)	Counter MANPADS	=	57
	& Stand of Weapons Mitigation		
(14)	Aviation Security Supervisor	=	21
	Course		
(15)	ICAO AVSEC Inspector Course	=	8
	Total	=	2418

b. **Training to Other Organizations / Departments.** Training for Screeners/ other courses were organized for the officers/staff of other departments/ airlines at ASF Academy Karachi. Summary of the staff of other departments attended Advance / Special Screener / other courses is appended below:-

		Total	=	213
(15)	Pakistan Custom		=	15
(14)	Package Const Company		=	14
(13)	Agha Khan		=	04
(12)	Special Branch Balochistan		=	02
(11)	AAPS		=	07
(10)	Anti Narcotics Force		=	12
(9)	TCS		=	03
(8)	DHL		=	04
(7)	SIAL		=	03
(6)	Gerry's Dnata		=	14
(5)	Emirates Airline		=	33
(4)	Royal Airport Services		=	33
(3)	Pakistan Air Force		=	10
(2)	Shaheen Airport Services		=	38
(1)	Pakistan International Airline	es	=	33

- c. **Training / Inspection Abroad:** 02 x officers / officials attended Aviation Security Course / inspection at China & Canada.
- d. **Local Courses:** 180 x ASF staff attended different courses in various training institutions in Pakistan.

Procurements

- a. **Uniform & Protective Clothing:** Budget for Uniform and Protective Clothing for Financial Year 2016-17 of **Rs.139,965,000**/- has been consumed for the procurement of uniform items.
- b. **Transport:** ASF needs to maintain operational mobility at all times to cater for its security needs at airports. A large number of vehicles are old vintage and need replacement. In order to enhance the operational / administrative mobility, budget of **Rs.132,350,000**/- has been consumed for the procurement of vehicles.
- c. **Plant and Mach:** ASF endeavors to remain in step with the technological developments in the field of Aviation Security and has acquired some of latest security equipment, communication systems, CCTV System accessories and firefighting equipment etc. All major airports have been provided with technical coverage. However, still some of the equipment at all airports need replacement as it is becoming old, obsolete and outdated. Budget of

- **Rs.48,150,000**/- has been consumed for the procurement of Plant and Mach to enhance the security standards:
- d. **Arms & Ammunition**: Budget of **Rs.311,119,000/-** has been consumed for the procurement of Arms & Ammunition.
- e. **Software:** Budget of Rs. **25,00,000/-** has been consumed for the procurement of Software.
- f. **Hardware**: Budget of Rs. **60,76,000/-** has been consumed for the procurement of Hardware.

Equipment

a. **Procurement by HQ ASF During FY 2016-17:** Details of activities, achievements and progress:-

S/No.	Equipment	Qty	Remarks
Α.	Installation of New CCTV System		
1.	CCTV (For 4 x Smaller Airports: Nawabshah,		
	Mohenjo-Daro, Skardu & DG Khan)	04	
	The CCTV System at 4 x Smaller Airports installed by	7 04	
	ASF Staff.		
	Installation of Solar System at 10 x Airports (Nawabshah,		
2.	Mohenjo-Daro, Skardu, DG Khan, Gwadar, Turbat,	10	
	Panjgur, R.Y.Khan, Bahawalpur & Dalbandin)		
В.	Procurement by HQs ASF during FY-2016/17		
1.	Base / Mobile Set Model: Motorola DM1600	80	
2.	Walkie Talkie Sets Digital Model: Vertex EVX 530	200	
3.	Batteries for Walkie Talkie Set TK-2212	300	
4.	Charger for Walkie Talkie Set TK-2212	100	
5.	Batteries for W/T Set iCOM IC 3033	500	
6.	Hand Held Metal Detector	50	
7.	Heavy Duty Torches	200	
8.	UPS / Inverter 7.5KVA	15	
9.	Maintenance Free Gel Batteries 150 Ah	40	
10.	Maintenance Free Gel Batteries 100 Ah	60	
11.	Diesel Generator Set (50KVA)	1	
12.	Body Worn Camera (Wi-Fi, Voice and GPRS)	20	
13.	Lead Curtains for Baggage X-Ray Machines	50	
14.	Plastic Trays for Baggage X-Ray Machines Small size	300	
15.	Plastic Trays for Baggage X-Ray Machines Large size	200	
16.	Conveyor Belts for X-ray Machines (Hand & Hold)	400	
17.	Diesel Generator Set 100KVA	2	
18.	Multi Fuel Gen. Set 20 KVA	4	
19.	Hybrid Solar Inverter 5 KVA	10	
20.	Photocopier Heavy Duty	2	
21.	Binoculars	10	

22.	Base / Mobile Set	35	
23.	Walkie Talkie Sets	125	
24.	Computer Core i5 AIO	50	
25.	Laser Printer	60	
26.	Surveillance Hard Disk 3TB	60	
27.	LED Display 20" HDMI	35	
28.	Document Scanner ADF	10	

Finance & Project

Budget Allocation & Utilization 2016-17 (Non Development Grant)

	Total	=	Rs. 5763.819 M
d.	Reg Suppl. Grant	=	Rs 450.000 M
c.	Contingent Charges	=	Rs. 1140.000 M
b.	Token Suppl. Grant (Reg Allowances)	=	Rs. 0.028 M
a.	Employees Related Expenses	=	Rs. 4173.791 M

Budget Allocation & Utilization 2016-17 (Development Grant)

(1)	Construction of ASF Camp at NIIA Islamabad	-	Rs. 800.000 M
(2)	Construction of Double Storey Barrack	-	Rs 30.000 M
	For Airguards Coy at ASF Camp Karachi		
(3)	Construction of Double Storey Barrack for	-	Rs 30.000 M
	ASF Academy at ASF Camp Karachi		
(4)	Construction of Residential Block for Ladies	-	Rs 15.000 M
	at ASF Camp Karachi		
(5)	Reconstruction/Rehabilitation of HQ ASF Old	-	Rs 10.000 M
	Barracks at JIAP Karachi & Lahore Airports		
	Total	-	Rs 885.000 M



Pakistan Meteorological Department (PMD)

PAKISTAN METEOROLOGICAL DEPARTMENT

Introduction

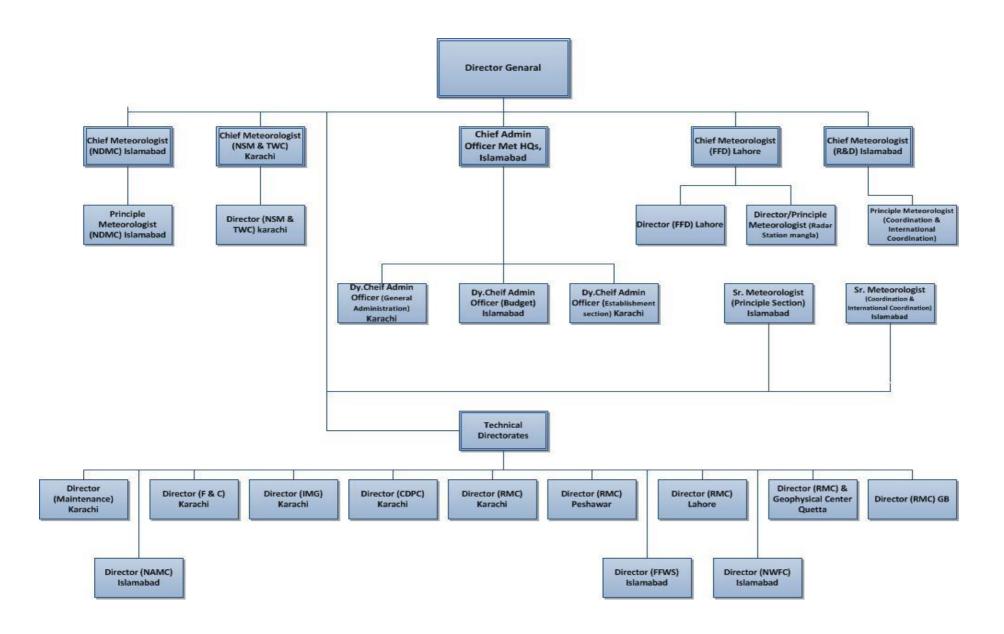
Pakistan Meteorological Department (PMD) is an attached department of the Cabinet Secretariat (Aviation Division). It is a scientific and technical organization engaged in the collection of real time diversified meteorological, climatological, hydrological, agro-meteorological and seismological data for undertaking multifarious activities in the fulfillment of its objectives and obligations. In addition to having various specialized units and canters (like Flood Forecasting Division, Drought Monitoring Centre, Research & Development Division etc.), PMD has a network of about 97 diversified observing stations and about 50 Automatic Weather Observing Stations which function under the technical and administrative control of PMD's various Directorates including Regional Directorates established at Lahore, Karachi, Peshawar, Quetta and GB. Further, for the provision of Agrometeorological Services, PMD has a specialized National Agrometeorological Centre (NAMC) at Met Complex, Islamabad, which is supported by 05 Regional Agrometeorological Centres (RAMC's), located at Rawalpindi, Faisalabad, Tandojam, Quetta and Usta Muhammad. Furthermore, National Drought Monitoring (NDMC), Islamabad is another specialized unit of PMD responsible for monitoring drought situation in the country and issues drought bulletins / advisories to the concerned stakeholders. The centre is supported by four Regional Drought Monitoring Centers (RDMC's) located in Lahore, Karachi, Peshawar and Ouetta.

Mission Statement

"To provide effective Hydrometeorological and Geophysical Services for the improved protection of life, property and environment, increased safety on land at sea and in the air, enhanced quality of life and sustainable economic growth"

Task

- (a) To ensure timely issue of different types of weather/flood forecasts, warnings and advisories, earthquake reports to concerned government functionaries/organizations and print and electronic media:-
 - (i) the safety of civil aviation operations, marine navigation and other related activities;
 - (ii) mitigation of disasters due to meteorological, hydrological and geophysical phenomena such as tropical cyclones, heavy rains, floods and earthquakes etc;
 - (iii) Socio-economic development of the country based on climatic and agro-climatic information to augment potential of different areas.
 - (iv) Boosting up agricultural productivity of the country by providing agrometeorological services to the farming community.
- (b) To investigate the behaviour of the atmosphere and exploiting this knowledge for short, medium and long term weather predictions.
- (c) To undertake research and development activities in various disciplines like Numerical Weather Prediction, Climate Change, Climate Modeling, Flood Modeling (hydrological Model, Flood Routing Model), Drought Monitoring, Weather Modifications, Wind Power Potential survey of various regions of Pakistan, Seismology and Earthquake Hazard Assessment etc. PMD has a total strength of 2446 personnel comprising 345 officers (BS-16 & above) and 2101 staff members.



Main Functions

The services being rendered by PMD to different Ministries / Organizations as follows:

- (a) Aviation Meteorological Services (Aviation Division)
- (b) Strategic Weather Services to Armed Forces (Defence Division)
- (c) Flood & Rivers Stream Flow Forecasting (Ministry of Water and Power, National Disaster Management Authority (NDMA) and Federal Flood Commission (FFC))
- (d) Agrometeorological/Weather Service for Farmers (Ministry of National Food Security and Research)
- (e) Environment, Ozone, Climate Change &, Global Warming Monitoring (Climate Change Division, Planning & Development Division/ Planning Commission),
- (f) Seismic Monitoring & Severe Weather Early Warnings (Disaster Relief Cell of Cabinet Division, NDMA)
- (g) Scientific Studies in Atmospheric Sciences (Ministry of Science & Technology)
- (h) Astronomical Information, Moon sighting (Ministry of Religious Affairs and Inter-faith Harmony / Ruet-e-Hilal Committee)
- (i) Harnessing Wind Power Potential of different regions of Pakistan (Ministry of Science &. Technology)
- (j) Drought/Environment Monitoring & Early Warning (Planning & Development Division, Planning Commission)
- (k) Climate Change, impact assessment and adaptation strategies (Climate Change Division, Planning Commission)
- (l) Glacial melting-monitoring and research (Ministry of Water & Power, Climate Change Division)
- (m) Marine Meteorological Services for METAREA-IX (Arabian Sea, Persian Gulf rim-countries) i.e. tracking of tropical cyclones, storm surges, tsunami, state of the sea etc. (Port Authorities, Fisheries, Pakistan Navy, neighbouring countries)
- (n) Training on Meteorology and Earth Sciences (PAF, Pakistan Navy / Army and other friendly countries)

Detail of PMD's Approved or Executed Projects during the Year 2016-2017

Sr. No.	Name of the project	Capital Cost of the Project (Rs. in Million)	Allocation 2016-17 (Rs. in Million)	Activities fixed for 2016-17	Achievement / Progress 2016-17
1.	Establishment of Flood Forecasting & Warning System for Kalpani Nullah Basin, Mardan (KPK)	230.000	100.000	Completion of Radar building	Near to completion
2.	Establishment of Main Met. Office at New Islamabad International Airport at Islamabad	28.923	10.000	Purchase of equipment	Project completed
3.	Establishment of Specialized Medium Range Weather Forecasting Center (SMRFC) and Strengthening of Weather Forecasting system in the Islamic Republic of Pakistan	2502.532	16.849	Radar Tower Building	16-Storey Completed
4.	Installation of Weather Surveillance Radar at Karachi in the Islamic Republic of Pakistan	1580.000	6.500	Bank Fee for opening of Authorization to Pay (A/P)	Achieved
5.	Reverse Linkage Project Between Pakistan Meteorological Department and Marmara Research Centre (MRC), Turkey (IDB)	101.000	12.000	i. Purchase of power system and earthquake monitoring equipment for remote areas ii. Training of PMD's seismological personnel	i. Purchase of power system completed. ii. Owing to some procedural delay by the Turkish counterpart, the training program has been shifted in next fiscal year.

Achievements during 2016-2017

Monsoon Outlook for 2017

PMD issued Monsoon Outlook 2017 during June before start of the monsoon season and shared with all concerned stakeholders like NDMA, FFC, GHQ, Ministry of Water and Power. Further, PMD also issues district levels forecast to the stakeholders.

Flood Forecast

PMD's Flood Forecasting Division (FFD), Lahore issued Flood Forecast Bulletin (A&B) / Advisories/Alerts on daily basis from 15 June to 15 October to all concerned stakeholders during monsoon season 2016 and made all necessary preparations for continuing this practice during monsoon season 2017. Further, PMD also issues district levels forecast to the stakeholders.

Fog Forecast for Major Airports/Cities

During every winter season, fog events hamper the routine activities of the various sectors. PMD extended services to the Aviation Division regarding fog forecast for Major Airports/cities, Motorway & Highway Police for the safety and awareness of travelling persons by road, and to the general public as well.

Installation of two weather radars at Karachi and Islamabad by JICA through Grant-in-Aid Assistance

JICA/Government of Japan has taken number of steps to enhance weather forecasting and warning capabilities of Pakistan Meteorological Department. Under JICA sponsored project "Establishment of Specialized Medium Range weather Forecasting Center (SMRFC) and Strengthening of Weather Forecasting System in the Islamic Republic of Pakistan". Under this project, the work for the installation of two weather radars at Meteorological Complex, Islamabad and Karachi has been started replacing the old radars. The construction of weather radar at Islamabad is underway and will be finalized in December 2019.





Present status of Islamabad Radar Building

Proposed view of Islamabad Radar Building

Establishment of Flood Forecasting & Warning System for Kalpani Nullah Basin, Mardan (KPK)

Mardan District has always been under threat of flash flooding in Kalpani Nullah which originates from Malakand hills. Since the last decade, many causalities have been reported owing to flash flooding in this Nullah. For the purpose of saving precious lives and property damage, the Government of Pakistan has approved the project titled "Establishment of Flood Forecasting & Warning System for Kalpani Nullah Basin, Mardan (KPK). Under this project the installation of weather radar at Mardan is in progress. With the completion of the project, PMD weather monitoring/forecasting capabilities will further enhance.

Establishment of Heatwave Early Warning System in Karachi

In wake of severe heatwave in Karachi in 2015 that took more than 1000 precious lives, PMD established Heatwave Early Warning System in Karachi to inform the general public to adopt precautionary measures to effectively handle the heatwave hazard. PMD also organized heatwave awareness seminars in Karachi during 2016 and 2017 in collaboration with K-Electric, Provincial Disaster Management Authority, City Metropolitan Corporation, local NGOs and relevant stakeholders.

Signing of Memorandum of Understanding between PMD and Meteo France for Cooperation in the field of Meteorology

A Memorandum of Understanding (MoU) was signed between Pakistan Meteorological Department and Meteo France (the national Met Service of France) for Cooperation in the field of Meteorology. The MoU was signed by the Ambassador of Pakistan to France Mr. Moin ul Haque and Chief Executive Officer of Meteo France Mr. Jean-Marc Lacave. The signing ceremony was held in Paris and witnessed by President Meteo Mr. France Patrick Benichou, Director International Relation Meteo France Mr. Bernard Strauss and Head of Cooperation and Cultural Affairs, Embassy of France in Pakistan

Mr. Andre de Bussy. Under this agreement, both the countries would work together to bring improvement in Pakistan's weather forecasting system, develop capacities in the field of early warning and weather services for the protection of human life, property and the environment, special focus on implementation of a heat wave early warning system. The MoU envisages jointly designing and

implementation of a special project to develop PMD's sectoral meteorological and climate services including the Early Warning System. Under this project, cooperation in the areas of applications of the science of meteorology to socio-economic development, with special focus on wind and solar power potential assessment including establishment of a National Climate Center would also be covered.

Memorandum of Understanding between PMD and Sultan Qaboos University (SQU), Oman regarding Technical Cooperation in Tsunami Early Warning System

The Government of Pakistan has recently approved an MoU on Technical Cooperation in Tsunami Early Warning System to be signed between Pakistan Meteorological Department and Sultan Qaboos University, Oman. The purpose of the MoU is to share real time seismic data regarding earthquake and tsunami for monitoring of seismological activities associated with the Arabian Sea and Gulf of Oman so that well in time both countries could generate warnings according the SOPs mutually agreed in order to save the precious lives and to reduce the economic losses at both sides, as both Pakistan and Oman were affected by the devastating tsunami waves in 1945. The MoU in particular covers the coastal areas of Oman & Pakistan.

Training abroad

Around 37 short-term trainings/workshops/seminars abroad availed by PMD scientists during 2016-17. These opportunities were offered mainly by World Meteorological Organization (WMO), China Meteorological Administration (CMA), Japan International Cooperation Agency (JICA), Korea International Cooperation Agency (KOICA), UNESCO, and International Centre for Integrated Mountain Development (ICIMOD) etc. Two (02) PMD officers also proceeded abroad for undertaking Master degree program in Hydrology and Water related Disaster Management.

Meteorological Service of Saudi Arabia Demanded Expert from PMD

Upon the request of the General Authority of Meteorology & Environmental Protection (GAMEP) of Kingdom of Saudi Arabia for requisitioning two trainers / experts from PMD to impart training and capacity development of GAMEP in the field of climatology, severe weather prediction & numerical weather prediction, the Government of Pakistan has recently approved the nomination case.

Strategic Strengthening of Flood Warning and Management Capacity of Pakistan-Phase-II

In the wake of 2010 floods, UNESCO in collaboration of Government of Japan initiated project for enhancing the flood warning and management capacity of Pakistan. Under this project, flood early warning capacities were enhanced for Indus River catchments and flood plains. International Centre for Water Hazard and Risk Management (ICHARM) under the auspicious of UNESCO and Japan Aerospace Exploration Agency (JAXA) developed a flood forecasting and routing model Indus-IFAS (Integrated Flood Analysis System for River Indus). The final versions of the Indus-IFAS and RRI (Rainfall Runoff Inundation) models were handed over to FFD/PMD. It was put into operation at PMD's Flood Forecasting Division (FFD), Lahore for dissemination of lead-time flood warnings to the communities living in flood plains of the upper Indus and Kabul River.

The project was completed in June 2014.

Flood of September 2014 floods in the Eastern Rivers urged the need to upgrade Indus-IFAS to cover the whole Indus River catchments including the Eastern Rivers of Jhelum, Chenab, Ravi, and Sutlej. Therefore, upon request of Pakistan, UNESCO and Govt. of Japan showed their concurrence to implement Phase-II of the project in order to increase the accuracy and reliability of Flood Early Warning System in Pakistan for mitigating hydrometeorological disasters for the safety and prosperity of people of Pakistan. The phase-II of the project was started in January, 2016.

The project aimed at:

- i) Indus-IFAS Model Improvement for Eastern Rivers of Pakistan.
- ii) Densening of observation network through installation of Automatic Weather Stations.
- iii) Undertake technical studies on strategic reinforcement of ground based observational network.

iv) Organization of short-term workshops/seminars for key stakeholders on river profiling and discharge measuring to understand the information, warning, technical terminologies, used in flood bulletins / advisories / warnings.

Strengthening of Early Warning System of PMD

Pakistan is facing the brunt of climate change ranking among Top Ten Most Vulnerable Countries in the world. In such a scenario, PMD's facilities are required to be enhanced and necessary steps are required to be taken for the replacement of old-aged instruments with the latest technology and analyses facilities. PMD submitted a comprehensive proposal to the Government of Pakistan for the priority-wise implementation in which replacement of weather radars and establishment of 18 new weather radar stations, induction of 400 Automatic Weather Stations (AWSs), establishment of 40 new Met. Observatories and automation of 97 existing Met. Observatories, establishment of regional flood warning centres at 15 locations, establishment of 36 centres in northern areas for monitoring of Glacial Lake Outburst Flood (GLOF), to monitor upper atmospheric wind profile 20 Wind Profiler Radars are proposed. The Government of Pakistan has very kindly approved the proposal in CDWP meeting held on 23rd December, 2016. Govt. of Pakistan has included this project in CPEC. Now, the project document is referred to Economic Affairs Division to find the funding for the project.

PMD Budget

Detail of PMD budget for the Financial Year 2016-17 is given as under:

a). Original non-Development Budget Rs. 1027,937,000 Supplementary grant Rs. 42,100,000

Total Non-Development Budget Rs. 1070,037,000

b). Total Development Budget Rs. 145,349,000

Conclusion

Though Aviation Division is relatively small Division, yet it is moving on fast track of progress. It is playing its role in economic development of the country in an efficient manner. It would continue to ensure strengthening of all core functions to enable achievement of the transformation as envisaged. Aviation Division is improving its vision to be a world class service provider in the aviation industry.

It is a desire to see Aviation rising with each passing day and transform itself into one of the leading aviation sector across the globe.

The most important aspect is the feedback mechanism through which all users can send their feedback and comments aimed at the betterment of aviation sector. This would enable us to bring about improvements on a continuous basis. Therefore, suggestions and comments are welcomed as they are fundamental to continuous improvement.