



Year Book 2015-2016



**GOVERNMENT OF PAKISTAN
CABINET SECRETARIAT
AVIATION DIVISION
ISLAMABAD**



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CABINET SECRETARIAT
AVIATION DIVISION
ISLAMABAD**



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Prime Minister of Pakistan (Minister In-Charge)



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Federal Secretary Aviation

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 2015-16. 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

Aviation Division

Cabinet Secretariat

Islamabad

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AVIATION DIVISION

Introduction

The 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, secure & efficient air transport 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. To ensure precision and accuracy in meteorological services

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 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 2015-16

Grant	Budget (in Rupees)
Aviation Division (05)	93,000,000
Airports Security (06)	5,082,000,000
Meteorology (07)	969,000,000
Development (105)	3,900,000,000

PSDP 2015-16

(Rupees Million)

S.N	Name of Scheme	Estimated cost		Expenditure upto 30.07.2015	Throw-forward as on 1.7.2015	Allocation 2015-16		
		Total	Foreign Assistance			Foreign Assistance	Rupees	Total
1	Development of Sustainable Rain Water Resources/Dams (Construction of Ramma Dam) NIIA	1657.000	0.000	684.741	972.259	0.000	271.419	271.419
2	Establishment of Basic Aerodrome Facilities in Mansehra (Land Acquisition)	1600.000	0.000	450.000	1150.000	0.000	200.000	200.00
3	Establishment of Flood Forecasting & Warning System for Kaplani Nullah Basin, Mardan (KPK)	230.000	0.000	21.718	208.282	0.000	10.000	10.000
5	Establishment of Main Met. Office at New Islamabad International Airport	30.969	0.000	12.388	18.581	0.000	18.581	18.581
3	New Gwadar International Airport (NGIA) (CPEC)	22947.650	0.000	679.000	22268.650	0.000	0.000	0.000
6	ASF Accommodation Barracks at NIIA Islamabad.	2035.085	0.000	0.000	2035.085	0.000	400.000	400.000

Achievements

National Aviation Policy 2015

Aviation industry operates in a rapidly changing environment. Shifting demographics, continual increase in urbanization and climate change are just few of the emerging systemic trends. Therefore, evolving a new National Aviation Policy was the need of the hour. The previous aviation policy was announced in year 2000 and as such was largely outdated.

The National Aviation Policy 2015 was formulated in consultation with all stakeholders representing different segments of the aviation industry followed by a series of deliberations at Civil Aviation Authority and Aviation Division. Finally the policy was vetted by USA's Embry-Riddle Aeronautical University.

The National Aviation Policy 2015 is a comprehensive and forward-looking document which was prepared in line with the mission and objectives of Aviation Division. It is foreseen that its thorough implementation will bring about a positive and meaningful change in the aviation industry. In turn a thriving aviation industry would stimulate economic growth in a wide variety of ways.

The aviation industry is inextricably linked to socio-economic centers such as trade, tourism, agriculture etc. The vitality of the industry however does not depend solely on economic indicators but also on multi-faceted social inter-linkages. The impact of a thriving aviation industry goes beyond economic benefits. It brings people and countries of the world together and as such must be seen as a tool of national integration.

Key Objectives of the Policy

- i. To improve governance and oversight for the compliance of ICAO standards of aviation safety, security and efficiency.
- ii. To provide level playing field for national airlines and liberalize aviation sector in the country by allowing market forces to determine the price, quality, frequency and range of air services options.
- iii. To follow suitable Public-Private Partnership (PPP) models for the operations, management and development of airports.
- iv. To develop a state-of-the-art infrastructure for the provision of safe and efficient air transportation.
- v. To incentivize aviation sector for socio-economic growth.
- vi. To create conditions conducive to affordable general aviation activities, i.e., sports flying and inter-city air travel by private aircraft /air-taxi service/charters, etc.

Bilateral and Multilateral Negotiations

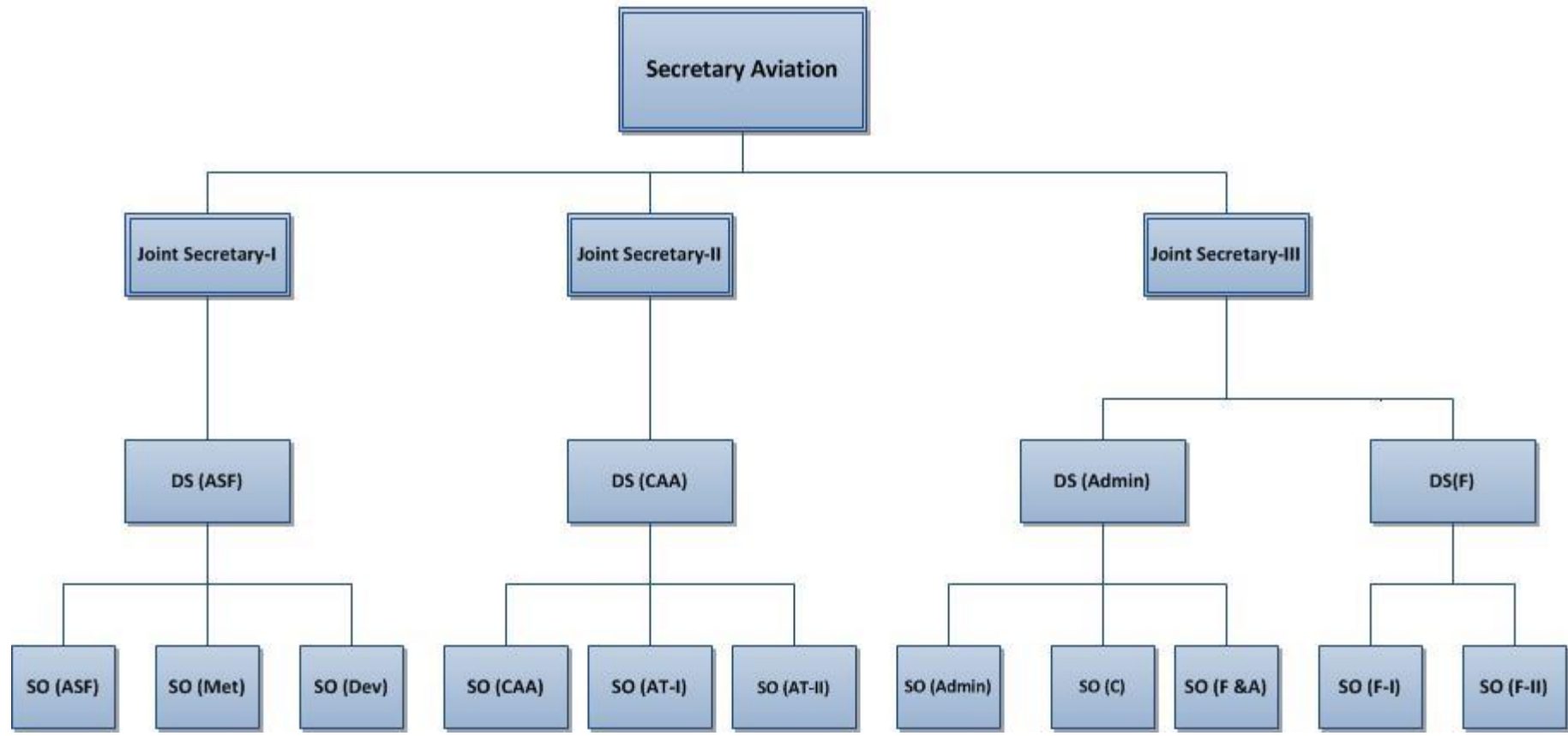
- Malindo Air commenced flight operations to/from Allama Iqbal International Airport
- Gulf Air commenced flight operations to/from Multan International Airport
- Fly Dubai commenced flight operations to/from Quetta International Airport
- Somon Air commenced operations to/from Allama Iqbal International Airport

- KLM Royal Dutch Airlines, Air Serbia, FlyNas and Air Berlin commenced code-share operations with Etihad Airways
- Air Canada commenced code-share operations with Turkish Airlines
- Royal Jordanian Airlines commenced code-share operations with Qatar Airways
- Royal Air Maroc is in the process of commencing code-share operations with Qatar Airways
- During ICAN 2015, Pakistan held Air Services Agreement talks with 17 countries i.e.

Country	Outcome	Remarks
Azerbaijan	-	Draft ASA exchanged
Bulgaria	MoU + ASA	-
Czech Republic	Agreed Minutes +ASA	-
European Commission	-	Informal Meeting
Ireland	-	-
Kuwait	-	Informal Meeting
Malta	MoU + ASA	-
Morocco	MoU + ASA	-
Nepal	MoU	-
New Zealand	MOA + ASA	-
Oman	Record of Discussion	-
Qatar	MoU +ASA	-
Rwanda	-	Informal Meeting
Serbia	MoU + ASA	-
Srilanka	MoU	-
Turkey	MoU + Protocol on Tariffs	-
Vietnam	MoU + ASA	-

- Bilateral ASA talks were held with the Tajikistan on December 15, 2015 in Islamabad. As a result of the talks, agreed minutes were signed with a view to enhance viability of flight operations between Pakistan and Tajikistan.
- Bilateral ASA talks were held with Bahrain on January 21, 2016 at Bahrain. As a result of the talks, the frequency/capacity framework of the ASA between the two countries was enhanced.
- Bilateral ASA talks with Kuwait were held on March 21-22, 2016 at Islamabad. The delegations agreed on the text of a new ASA as well as an enhanced operational framework.
- Bilateral ASA talks with Belarus were held at Minsk, Belarus on April 4-5, 2016. As a result of the talks, the delegations agreed upon the text of an ASA between Pakistan and Belarus and an operational framework to facilitate the commencement of flight operations between Pakistan and Belarus.

Organogram





Civil Aviation Authority (CAA)

Civil Aviation Authority (CAA)

Introduction

Civil Aviation Authority is a public sector autonomous body working under the Federal Government of Pakistan through Aviation Division, Cabinet Secretariat. CAA was created on 7th December 1982 under the Civil Aviation Authority Ordinance XXX of 1982. The purpose of establishing CAA is to provide for the promotion and regulations of Civil Aviation activities and to develop an infrastructure for safe, efficient, adequate, economical and properly coordinated Civil Air Transport Service in Pakistan.

The general direction and administration of CAA and its affairs vest in **CAA Board** which exercises all powers, performs all functions and does all acts and things that need to be exercised, performed or done by the Authority. The Chairman CAA Board is the Secretary of the Division to which the affairs of the Authority are allocated.

CAA Executive Committee is the highest decision making body of the organization. It exercises such administrative, executive, financial and technical powers as delegated to it by the Authority.

Vision

Be a world class service provider in aviation industry.

Mission

Provide safe, secure and efficient best-in-class aviation services to the stakeholders.

Functions

The CAA has three core functions; each is headed by a Deputy Director General:

i. Air Navigation Services (ANS):

ANS is responsible for provision of safe, expeditious and orderly flow of air traffic at airports and in airspace.

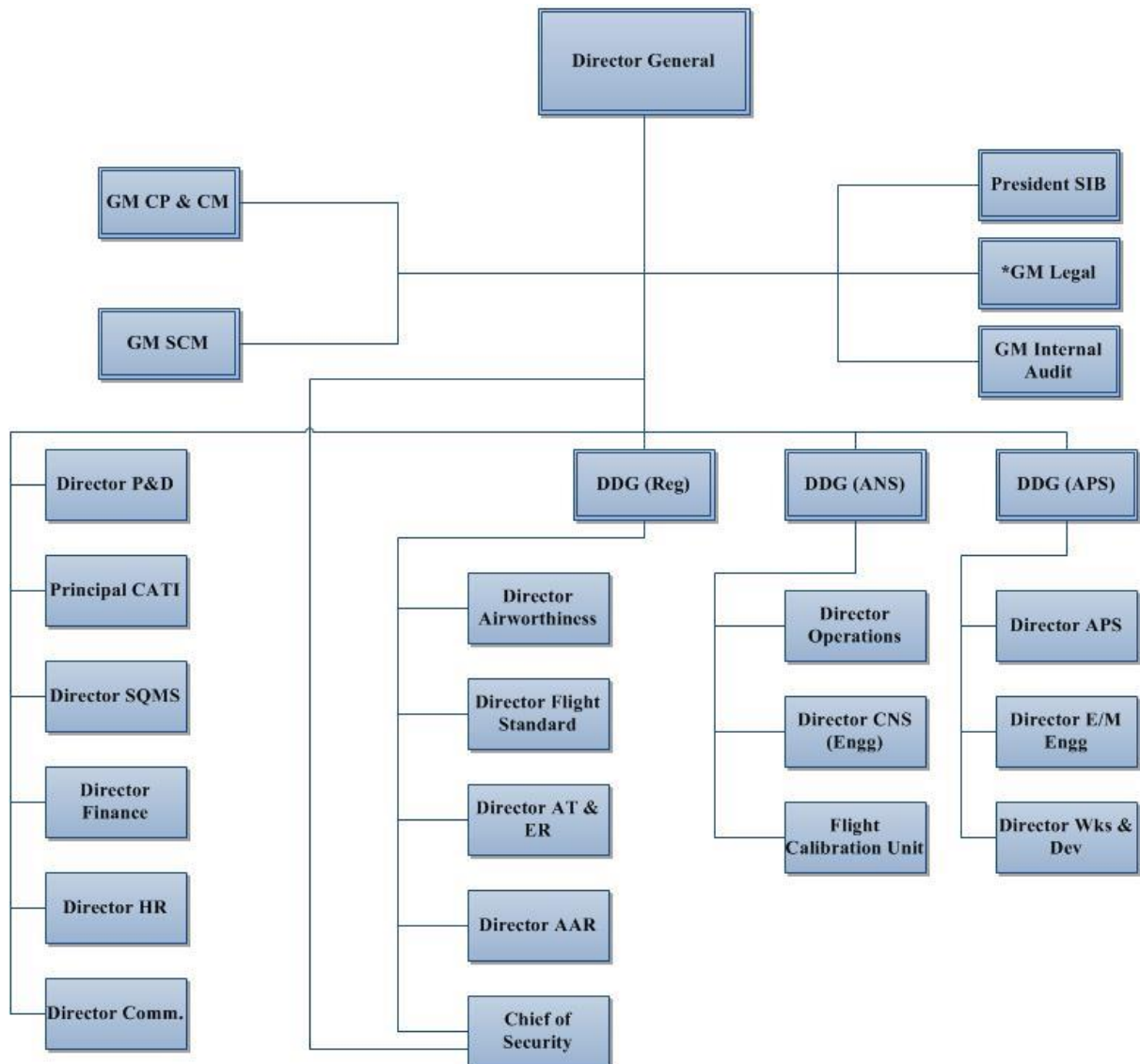
ii. Airport Services (APS):

APS not only runs the administration of an airport but also facilitates smooth flow of passengers through airports.

iii. Regulatory:

Regulatory function ensures compliance with standards/regulations of International Civil Aviation Organization (ICAO) and Civil Aviation Authority (CAA).

Organogram



Achievements

1. 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 Management 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:-

a. Talent Management Branch

i. Improvement in the Organizational Structure

Organizational review of EG-07 & above, along with revised organizational structure as proposed by HR Directorate has been approved by CAA Board in its 164th CAA Board meeting held in April, 2016.

ii. Adjustment of Supporting Staff

Daily wagers were hired by CAA from time to time to fill the gaps in unskilled / semi-skilled trades from 1983 onwards. On 6th January, 2010, the Federal Cabinet accorded approval for regularization of all 4232 daily wagers. On regularization, all the daily wagers were called as Supporting Staff. In 2012, the Cabinet Sub-Committee decided to up-grade the Supporting Staff on the basis of qualification. Accordingly, a total of 2193 employees were up-graded by more than one pay group. 1191 employees who were Matriculate or equivalent were up-graded to PG-03, 937 employees who were Intermediate/DAE/Graduate/B-Tech were up-graded to PG-04 and 65 employees who were Masters or equivalent were up-graded to PG-05. It was also decided that the illiterate employees, who had served for more than ten years as a daily wager would be up-graded to PG-02. Implementation of this decision created a multitude of problems and litigations because already available regular employees were not given this facility of up-gradation whether they possessed the above qualifications or not.

As of March 2016, total number of Supporting Staff was 3,600. Subsequently, as a result of a proper process involving NTS test followed by interviews, 467 Supporting Staff have been formally selected through Internal Job Placement (IJP). 1820 Supporting Staff in SG-01 and SG-02 have been given the same trade on the basis of which they were inducted on daily wagers in CAA subject to availability of vacancies in the already approved establishment. Therefore, a total of $1820 + 498 = 2318$

Supporting Staff have been given trades in accordance with the procedures.

The process of Internal Job Placement is continuing and it is expected that more individuals would be adjusted within the already approved manpower establishment in the near future. It is pertinent to mention here that no inductions have taken place in the unskilled categories in the recent past which has resulted in considerable improvements. The fact of the matter is that at the time of regularization of 4232 daily wagers in CAA in 2009, the figure of surplus manpower stood at over 3,000 but now the figure is just around 250 which is expected to be eliminated in the next three years.

iii. Recruitment & Selection

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 2015-2016 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 operation of organization running at optimal level in compliance with the ICAO requirements:

Sr. No.	Designation	Number	Type of Appointment
1.	Co-Pilot (Calibration) (EG01)	01	Regular
2.	Airworthiness Surveyor (EG01)	04	Regular
3.	Assistant Director Airport Services (EG-01)	10	Regular
4.	Estate Surveyor (SG-05)	02	Regular
5.	Patwari (SG-05)	05	Aghaz-e-Haqooq-e-Balochistan
6.	Cabin Safety Inspector (EG-05)	02	Contract
7.	Special Vehicle Driver (SG-05)	07	Contract
8.	Additional Director Project (Monitoring & Evaluation) (EG07)	01	Contract
9.	Additional Director (General Aviation) (EG-07)	02	Contract
10.	Flight Inspector Pilot (Helicopter) (EG-07)	01	Contract
11.	Flight Inspector Pilot (EG-07)	01	Contract
12.	Dy. Director Project (Management / Monitoring) (EG-01)	02	Contract
13.	Additional Director Contract Management (EG-07)	01	Contract
Total		39	

iv. Career Planning & Reward and Recognition

Officer Promotion:

Considering the merit and suitability and availability of vacancy, following 25 numbers of officers were promoted during the year 2015-2016 as follows:

Pay Group	Promotions
EG 07	19
EG 08	02
EG 09	04
Total	25

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 grade. 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	11
EG-05	07
EG-04	01
EG-03	08
EG-02	06
EG-01	20
Total	53

v. Training & Development:

- i) In 2015-2016, 1460 employees have been given trainings through the three main sources available in CAA. Details are as under:-

Training Sources	No. Trainees
Foreign Training	317
Inland Training	350
CATI	793
Total	1460

- ii) Internships opportunity to about 434 students from various recognized Universities / Institutes in multiple disciplines were provided.
- iii) MoU with Institute of Cost and Management Accountants (ICMAP) has been signed regarding acquiring of services of fresh cost and management accountants for CAA's finance directorate. Through this MoU, professional environment inductive of learning to the registered students of ICMA Pakistan is being provided. This MoU will also aid CAA

in capacity building of our finance professionals enabling them to learn the best practices in cost and management accountancy.

vi. Implementation of Human Capital Management

CAA is implementing all Cloud based modules of Human Capital Management (HCM) for effective and efficient functioning of Human Resource Directorate. This Cloud based technology will help CAA in moving towards electronic processing of all HR functions in shortest possible time. As for now, following modules have been made Go- Live:-

- i. Core HR
- ii. Taleo Recruit
- iii. Leave Management System

b. Business Support Services Branch

i. Establishment of Complaint and Business Centers at HQ CAA

Complaint Centre established in 2014 is running satisfactorily and all complaints of electric and maintenance works at HQ CAA are being handled promptly by the concerned offices.

ii. Storage of Record at HR Department

Record stored in record room of HR Directorate is well maintained since its establishment in 2014.

iii. Celebration of 68th Independence Day of Pakistan

HQ CAA celebrated the 68th 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.

iv. Celebration of 33rd Anniversary of CAA

33rd Anniversary of CAA was celebrated on 7th December 2015 in a befitting manner. Cricket tournament was also arranged on this occasion and final was played at Karachi's Asghar Ali Shah Stadium between Veterans XI and AIIAP Cricket team.

v. Sports Activities

The following achievements have been made by Sports Section during the year 2015-16:-

- i. Construction of sports complex planned in different phases. First phase includes development of cricket, football grounds besides basketball and volley ball courts and installation of R.O. Plant. First phase has been successfully completed and its inauguration is planned in August 2016.
- ii. Three Inter CAA cricket tournaments were organized on the occasion of Pakistan Day, Independence Day and CAA's Anniversary Day

(7th December). All the three tournaments were conducted in a befitting manner. CAA has established ten cricket teams so far.

- iii. Second phase for construction of Gymnasium tennis court, badminton court, swimming pool and squash courts is also being planned in the year 2016-17.

vi. Establishment of HCM in HR Department

Human Cloud Management has been established at HQ CAA to arrange and keep the record in email system.

vii. HR BSS (Inquiry Section) has competed the following tasks

S.No.	Description	Proceedings Completed	Proceedings Under Process	Total
1.	Board of Inquiries	44	14	58
2.	Fact Finding Committees	09	04	13
3.	Formal Investigations	03	02	05
4.	Committees	12	06	18
Total		68	26	94

c. Organizational Development Branch

i. 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.

ii. 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.

iii. 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.

iv. 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 CAA 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.

v. 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 with induction/deployment of regular employees in core functions, outsourcing of non-core functions have been initiated that not only increase efficiency but also save cost and other resources.

vi. National Aviation Policy

ABS & Co. has submitted the draft annexure for regulatory framework after revision of the same in light of National Aviation Policy 2015. Deliberations and discussions are being carried out with the regulatory to finalize the drafts.

d. Personnel Management Branch

S. No.	Disciplinary Actions	Officers	Staff	Total
1	Removal from Service	01	04	05
2	Dismissals	01	02	03
3	Suspensions	02	06	08
4	Terminations	00	01	01
5	Compulsory Retirement	00	03	03
6	Demotions	03	05	08
7	Censured	10	11	21
8	Withholding of Increments	00	09	09
9	Letter of Advice	22	29	51
10	Letter of Displeasure	07	00	07
11	Warning Letter	12	47	59

2. Air Transport and Economic Regulations Directorate

a. International Regulation

- Malindo Air commenced flight operations to/from Allama Iqbal International Airport
- Gulf Air commenced flight operations to/from Multan International Airport
- Fly Dubai commenced flight operations to/from Quetta International Airport
- Somon Air commenced operations to/from Allama Iqbal International Airport
- KLM Royal Dutch Airlines, Air Serbia, FlyNas and Air Berlin commenced code-share operations with Etihad Airways
- Air Canada commenced code-share operations with Turkish Airlines
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- During ICAN 2015, Pakistan held Air Services Agreement talks with 17 countries i.e.

Country	Outcome	Remarks
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Bulgaria	MoU + ASA	-
Czech Republic	Agreed Minutes +ASA	-
European Commission	-	Informal Meeting
Ireland	-	-
Kuwait	-	Informal Meeting
Malta	MoU + ASA	-
Morocco	MoU + ASA	-
Nepal	MoU	-
New Zealand	MOA + ASA	-
Oman	Record of Discussion	-
Qatar	MoU +ASA	-
Rwanda	-	Informal Meeting
Serbia	MoU + ASA	-
Srilanka	MoU	-
Turkey	MoU + Protocol on Tariffs	-
Vietnam	MoU + ASA	-

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b. National Regulation

- After promulgation of National Aviation Policy-2015, the existing Air Navigation Order No. ANO-001-ATNR-1.1, has been revised and disseminated to all concerned quarters and also uploaded on CAA Website.
- As directed by Aviation Division, ABS Co, CAA Legal Consultant has vetted the draft conditions of RPT, Charter, Aerial Work and Private Aircraft Operations Licenses and the same are being forwarded for Government approval.
- In compliance with the instructions of Aviation Division, the Conditions of Private Aircraft Operations License along with its Application Form and pre-requisite have also been forwarded to ABS & Co. for their considerations for onward submission to Aviation Division.
- RPT License has been issued to M/s Serene Air.
- New GSAs have been appointed for the following foreign airlines:-
 - i. Royal Air Moraco (Khyber International)
 - ii. Malindo Air (Pak Turk Enterprises)
 - iii. FITS Air (ACT Pakistan)
 - iv. Air Bridge Cargo (Air Transport Management)
 - v. Air Arabia (Cargo) (Aero Aviation Services)
 - vi. Air Arabia (Passenger) (Sonya Travels)
 - vii. Somon Air (Cargo) (Dolphin Aviation Services)
 - viii. Somon Air (Passengers) (The Conceilge)
- CAAO-002-ATNR-1.0 on "Air Transport Licenses by Federal Government and DG CAA" for which valuable comments / suggestions have been incorporated in the CAAO. Upon approval of DG CAA, the same will be disseminated to all concerned for compliance.

- On recommendations of CAA Team formed to study "Current Gaps in Respect of Cargo Operations", existing ANO-002-ATXX-1.1 has been revised with new name "Freight Forwarder" instead of Dangerous Goods Handling Agent. Upon approval of DG CAA, the same will be implemented with full letter and spirit.
- In compliance with the DG's instructions, a software for "online approval for issuance / renewal of licences" has been developed. After completion of all formalities of concerned Directorates, the same will be utilized practically.

c. Consumer Protection

Number of passenger complaints handled against various Airlines during the period July 2015 – June 2016.

PIA	:	23
Shaheen	:	18
Air Blue	:	15
Foreign Airlines	:	43
Other Stakeholders	:	04
Total	:	103

d. Economic Oversight

- Conducted Financial Analysis of the operators, seeking renewal of their Regular Public Transport, Charter, Aerial Work or Flying School License.
- Assessed financial feasibility submitted by new applicants seeking issuance of Regular Public Transport, Charter, Aerial Work and Flying School License.
- Implemented relevant portion National Aviation Policy (NAP) 2015.
- Sought approval of Revised Route Navigation and Airport Charges (implemented on August 01, 2015) in order to enhance CAA revenue.
- Prepared a report on financial and operational analysis of Pakistani Airlines.
- Prepared a report on financial and operational analysis of Pakistani Charter Operators.

3. Development Projects

CAA Annual Development Programme (ADP) for the year 2016-17 envisaged an overall allocation of Rs.35,821 million, of which major provision of Rs. 21,974 million has been 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 Equipment and Rs.6,321 million for other Misc. development requirements of CAA user Directorates at various locations.

a. Islamabad International Airport (IIAP)

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 and will shorten the driving distance to 25-30 minutes.

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.

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.

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.

In line with master plan for current development, the construction of IIAP Project is categorized in three broad phases i.e.

Phase-1: Airside Infrastructure which includes main runway, emergency runway, taxiways, apron for parking 28 aircrafts, state lounge, cargo and aircraft maintenance aprons, hydrant refueling system and airfield lighting system.



Phase-2: Passenger Terminal Building (PTB) which includes the main building spread over an area of 162000 SM with sophisticated electro mechanical systems including BHS, HVAC, stand by generators, lifts,



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



Phase-3: Landside Infrastructure which includes departure level bridge, car park for 2200 cars, road network, water works, sewerage treatment plant, firefighting system, storm water drainage and landside buildings/infrastructure i.e Jamia mosque, custom / cargo building 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 July, 2017 with testing, commissioning of systems and operationalization activities to follow immediately after completion of works. Besides the above, construction work is in progress on a dedicated rain water harvesting dam at Ramma 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. Up-Gradation of Multan International Airport (MIAP)

The Multan airport up-gradation project under taken by CAA is on self-financial 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 and Allied Facilities

Phase-I: Up-gradation 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 aircrafts parking was completed in the year 2010 and since then the same has been in use of CAA. The Honourable Prime Minister of Pakistan inaugurated accordingly. Phase-I comprised of the following:-

- a) Airside Pavements (runway, taxiways, apron and CAT-I AFL System)
- b) Fire Station
- c) Air Traffic Control Tower (ATC)
- d) ATC Equipment

Phase-II: Construction of Terminal Building and Allied Facilities

The work on new state of 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 by 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 / miscellaneous buildings
- b) Terminal Building and allied facilities
- c) Landside and allied E&M Works
- 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 2015-16

a)	Procurement /installation of ATC equipment	Operation and under defect liability period
b)	Elevator ATC tower	-do-
c)	Terminal Building & allied facilities	-do-
d)	Landside and allied E&M Works	-do-
e)	2 x Additional and PBBs (moveable portion)	-do-

f)	2 x GPU and 2 x VDGS	-do-
g)	Construction of 2 x PBBs (fixed portion) and connecting passages	-do-

c. 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:-

Airside Infrastructure

- **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 (737, Airbus, A320, 200) and Two Code – E (777, 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/year.
- **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 along with 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.

Frame Work Agreement

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.

Three Chinese Companies were accordingly nominated for the construction of NGIA Project by the Government of China and forwarded through Embassy of Pakistan to Planning Commission and Economic Affairs Division for Implementation of Frame Work Agreement on EPC basis which are:-

- i. China Communication Construction Company (CCCC)
- ii. China State Construction Engineering Company (CSCEC)
- iii. China National Aero-Technology International Corporation (CATIC)

Updated Status

During Pak-delegation's meeting with the reps of MOFCOM, 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. Feasibility Report, Master Plan, Bidding Documents and revised PC-I of NGIA were provided to MOFCOM through EAD on 9th September, 2015.

The loan and grant negotiations had been divided into two big construction projects such as KKH and KLM, while GDA project of smart city and NGIA were being covered under Chinese grant as two small projects. The Chinese MOFCOM responded that the grant for NGIA was dependent on the outcome of two big projects and interest rate agreed between GoP and PRC. A delegation was also invited by Aviation Division from Chinese side to carry out the preliminary assessment of Gwadar airport and for the finalization of project details.

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.

Commencement of Project

Formal Agreement between Government of Pakistan and Government of Peoples Republic of China is likely to be signed shortly, covering the terms and conditions of grant along with the procedures and standards to be followed for project execution.

d. Expansion and Renovation of Bacha Khan International Airport, Peshawar

Project Overview

PC-I Cost	-	Rs.2000 (M) - (Revised PC-I Cost. Rs.2994 M)
PC-I Approval Date	-	Approval accorded by CAA Board in its 159 th Meeting held on 16 th June, 2015.
Anticipated Revised PC-I Cost	-	Rs.2994 (M)
Tender Cost	-	Rs.1897 (M)
Date of Letter of Acceptance	-	28 th December, 2015
Date of Commencement	-	11 th March, 2016
Date of Completion	-	10 th September, 2017

Project Objectives

BKIAP is the fourth busiest airport in Pakistan and handles domestic and international traffic. On domestic routes, BKIAP provides connections to major cities i.e. Islamabad and Karachi and also to the remote station of Chitral in its North. On the international routes it connects the city to major airports in the Gulf and Afghanistan. Residents of Peshawar travel to Karachi, the Middle East and elsewhere overseas in search of employment and other opportunities. The existing facilities at the airport are the result of random and piecemeal growth which is now grossly inadequate to handle passenger traffic.



Project Scope

The expansion of facilities at BKIAP envisages provisioning of the following facilities:

- i) Remodeling of existing Terminal Building to cater for International Arrivals and Departure as well as Domestic Check-in.
- ii) Addition of new block adjacent to the existing Terminal Building to cater for Domestic Arrivals and Departures.
- iii) Allied infrastructure facilities.

With completion of the above works, passenger will be provided with improved comfort and service level during arrival and departure both for International and Domestic operations.

Passenger Terminal Building

Level-1

Description	Existing	Total after Expansion (As per PC-I, May 2015)	Proposed Addition (As per PC-I, Rev 1, May 2016)	Total
Area (sq m)	6,363	10,569	1,460	12,029
Immigration <ul style="list-style-type: none">• Arrival• Departure	4 Counters/ 7 Position 5 Counters/ 5 Position	6 Counters /12 Position 6 Counters /12 Position	1 Counters/ 2Position 2 Counters/4 Position	7 Counters/14 Position 8 Counters/16 Position
Baggage Claim Belt <ul style="list-style-type: none">• International• Domestic	2 (52m each) 2 (40m each)	2 (75m +49m) 2 (46m+44m)	- -	2 (75m +49m) 2 (46m+44m)
Check – in counter International Domestic	9 4	12 9	6 -	18 9

Level-2

Description	Existing	Total after Expansion (As per PC-I, May 2015)	Proposed Addition (As per PC-I, Rev 1, May 2016)	Total
Area (sq m)	2,462	6,097	2,450	8,547
Hand Baggage Security Positions <ul style="list-style-type: none">• International• Domestic	2 2	2 2	- -	2 2

Departure Lounge seat Capacity				
• International	400	535	400	935
• Domestic	350	394	-40	354
• Passenger Boarding Bridges	-	-	2	2
• Passenger Lift	-	4	1	5
• Escalators	-	4	1	5

Project Progress

The project has been started at tremendous pace to achieve the end goals.
The progress is as under:-

Overall		Block-1 New Domestic Terminal	Block-2 Corridors
Financial Progress:-	13%	Physical Progress:- 20%	Physical Progress:- 8%
Physical Progress:-	7%		

e. 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:

- Expansion of airport infrastructure to cater incremental increase in number of passengers and aircraft
- To provide the facilities of international standards for the passengers and visitors

- iii. To ensure that comfort and convenience of passengers is in line with international standards specified for airports
- iv. To comply with 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 original scope of work. Now as per revised plans 73,400 sft with one and half level concept. Addition of 2 Avio Bridges
- ii. Provision of Master Clock System, Flight information Display System (FIDS), IVR based flight enquiry system, two conveyor belts in International Arrival lounge, one Conveyor belt in domestic arrival lounge. Provision of 12 Check in counters for international and four check in counters for domestic briefing area, Provision of CCTV, Provision of fire hydrant and fire alarm system.
- iii. Seating capacity 400 in international lounge and 200 in domestic lounge.
- iv. Construction of Alpha Taxiway 1200 feet x 75 feet wide with 25' shoulder on each side. (Flexible).
- v. Construction of Fokker Apron (300' x 300') Rigid Apron with 12" thick PQC (Pavement Quality Concrete).

Date of Start	:	15 th January, 2016
Date of Completion	:	14 th July. 2017
Overall Progress	:	27.93 % achieved
Financial Progress	:	(32.5 %) 111 M paid against work done and 53.7 M against Mob. adv 10% paid.
Anticipated Revised PC-I cost	:	1168 Million

Major Actual Progress:

Alpha Taxiway:

Civil work completed for Taxiway.

Fokker Apron:

Overall 80% work stands completed.

Terminal Building:

As per plan the terminal building foundation for right and left side has been completed. Major portion of plinth beam is also completed. Columns on right and left side are under construction. Central portion foundation is also started. Overall 8% progress of terminal building has been achieved.

f. Expansion and Renovation of Quetta International Airport Quetta



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.

Total Cost of Work Assigned	:	Rs.1718 (M)
Formal Start of Work at site	:	1st January 2016
Stipulated Date of Completion	:	30 th July 2017

Proposed Facilities

- The expansion of Quetta Airport will completely transform its architecture, capacity and facilities. There will be ample space for comfortable passenger processing with aesthetically developed lounges.
- New building will have double the number of check-in and immigration counters to ensure smooth flow of passengers.
- In order to keep passengers protected from harsh weather, two passenger Boarding Bridges have also been provided.

Present Status

The contractor is mobilized at site. Work is in progress at Terminal Building in due coordination with all airlines and functionaries with smooth flight operations. The detail is as under:-

- Work in full swing at terminal building, with new construction in areas and dismantling activities in existing Terminal Building.
- New Concourse Block A & C Double height columns completed, First and Roof Slab Block A casted, internal partitioning works started.
- New Office Block Roof slab casted, Architecture and MEP works to start.
- Airside corridor Left Side First Floor Slab Casted, Roof slab under process.
- International airside corridor also started, foundations and plinth beams completed.
- Foundations for fixed parts of passenger boarding bridges at both domestic and international side completed.

- Order placement for major equipment is in final stage, contractor in execution of contracts with vendors/ manufacturers.

Present & Future Plans of Domestic & International Flights

Existing

- Domestic Flights 30 Weekly {Variable}
- International Flights 05 Weekly (started from May 2015)
- Aircraft Types A 320 = 175 Pax
A 310 = 180 Pax
B 737 = 120 Pax
- Apron 2 Wide Body & 3 ATR

Future Plans of Three Months

- Domestic Flights 45 Weekly {Variable}
- International Flights 07 Weekly
- Apron Apron & Runway up gradation are in pipeline w.r.t Terminal Building Expansion

g. 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, Civil Aviation Authority (CAA) will act as an executing agency of this project and Sindh Coal Authority (SCA) as sponsoring agency. The project is being funded by the Government of Sindh. The airport site (approximately 1000 acres) is located near Islamkot / Mithi, District Tharparkar Sindh.

Salient features of the project are as under:-

- Original Cost Rs.972 (M)
- Revised Cost Rs.1659(M)
- Re-Revised Cost Rs.2273.192 (M)
- Runway-7,000'x100' (i/c 900'x150' over runs both ends)
- Link Taxiway-800'x75.5'
- ATC setup (on top of Terminal Building)
- Fire Fighting Equipment & Services
- Fuel Storage and Supply System
- Fencing & Security
- Terminal Building (50 incoming / outgoing Passengers), Vehicle parking Area, Basic Utilities & Services (TB Area-3000 Sqm)

Total 50.96% 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	Balance Work of Runway, Taxiway and Terminal Building	Letter of Acceptance issued to M/s Umer Jan & Co. on 20th May, 2016. Joint measurement in progress
2	Apron and Land Side Facilities	Construction work in progress. The physical progress of the Package till July, 2016 is 82.641%
3	Residential Quarters, Mosque, Fire Station and M.T. Shed	Construction work in progress. The physical progress of the package till July, 2016 is 24.389%
4	Supply of Furniture	Pre-qualification under process
5	Navigation Aids/ ATC Equipment	Pre-qualification under process

4. CNS Engineering Directorate

S #	Name of Work	Remarks
1	Procurement and installation of 02 PSRs / 02 MSSRs (Mode S) capable for Karachi & Lahore on turnkey basis.	The contract for procurement of 02 PSRs and 02 MSSRs (Mode S) with M/s Indra Sistemas Spain was signed on 22 nd December, 2014. The installation at JIAP Karachi is in final stages whereas the installation at AIIAP Lahore is expected to be completed within next two months, followed by Site Acceptance Test and full scale operation in December, 2016.
2	Procurement of 01 Co-mounted Primary Surveillance S-Band Radar (PSR) and Monopulse Secondary Surveillance Radar System (MSSR) Mode 'S' at IIAP Islamabad, and 01 each MSSR Mode-S at Pasni, Rojhan & Lakpass on turnkey basis.	International bids were invited through press tender and are presently under technical evaluation. Tender process for award of contract is expected to be completed by the end of September, 2016.
3	Procurement of one (01) ATM System along with associated Equipment and Services (including Training) as required on turnkey basis.	The technical bids were opened on 28 th July, 2016. Four international OEMs have participated in the tender action. Presently the technical evaluation is in progress and expected to be finalized shortly.

4	Procurement of VHF Extended Range transceivers for EVHF station Faisalabad and Laram Top.	The procurement made through this Contract with M/s R & S Pakistan has been utilized. Accordingly the old vantage Extended VHF sets installed at various remote stations have been replaced with new digital transceivers for all primary frequencies.
5	Provision of 3D-Aerodrome/Radar Simulator for CATI Hyderabad.	2D- Aerodrome Simulator has been installed at CATI Hyderabad. The delivery of 3D Aerodrome / Radar Simulator is expected to be finalized by Nov, 2016.
6	Installation of ILS CAT-IIIB and Surface Movement Radar (SMR) system at AIIAP Lahore.	The installation of both ILS CAT-IIIB and Surface Movement Radar (SMR) on main Runway at AIIAP Lahore has been completed. With the equipage of these equipment / systems, the AIIAP Lahore has now become all weather Airport. It is anticipated that diversions experienced in the previous years will now be addressed at AIIAP Lahore.
7	Installation of CAT-I ILS at Secondary Runway of AIIAP Lahore.	The old ILS CAT-I equipment dismantled from JIAP Karachi has been installed at the secondary runway of AIIAP Lahore. Now both runways at AIIAP Lahore are equipped with Instrument Landing System to facilitate landing aircrafts.
8	CAA communication requirement of voice, data and video over redundant media.	Implemented through a contract signed between CAA and PTCL.
9	Transition of Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM) and Procedure Design at HQCAA Karachi.	The required equipment installed and commissioned.
10	Provision and installation of Controller Pilot Data Link Control (CPDLC) & Automatic Dependent Surveillance - Contract (ADS-C) at both ACCs (Area Control Centers of JIAP Karachi & AIIAP.	The Link is under testing stage over SITA link at both ACCs of JIAP Karachi and AIIAP Lahore through a contract signed between CAA & M/s Wateen Telecom.
11	Development of indigenous software and replacement of Check-in Display System at JIAP Karachi with latest LED display system.	Procurement of hardware completed. Testing of software in progress at JIAP Karachi.

5. Engineering Services Directorate (Civil)

Rs. in Million

S #	Name of Scheme	Total Cost	Physical Progress
1	Construction of CAA Sports Complex, Karachi	49.00	100%
2	Construction of 3-D Aerodrome Simulator building at CATI Hyderabad	10.387	100%
3	Construction of Mini Market in Coconut Orchard Area at JIAP Karachi	44.00	100%
4	Construction of DVOR Building at Quetta airport	30.00	100%
5	Construction of Fire Station/Garage for new striker vehicles adjacent to Apron at Zhob Airport	8.796	100%
6	Construction of Precast RCC Wall & fixing of Razor Wire at BBIAP Islamabad	15.701	100%
7	Extension of Radar building for up-gradation of PSR & SSR system in ACC at JIAP Karachi	23.760	90%
8	Development of Infrastructure for Sewerage water supply to Horticulture work Runways, Taxiway and Apron at JIAP Karachi	35.327	80%
9	Construction of Shed for meters and greeters at Bahawalpur Airport	8.133	100%
10	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 at JIAP Karachi	8.437	90%
11	Remarking / repairing of Main Runway, Taxiway and Apron at AIIAP Lahore	8.883	100%
12	Repainting of Secondary Runway at AIIAP Lahore	5.003	100%
13	Improvement of Car Park & Public Toilets at Hajj Lounge at AIIAP, Lahore	5.310	100%
14	Addition / Alteration of existing vault rooms 1&2 to accommodate "CAT-III (B) Installation" at AIIAP Lahore	5.720	100%
15	Replacement of reflective signboards at AIIAP Lahore	5.999	100%

6. Engineering Services Directorate (E&M)

(Rs. in Millions)

S #	Name of Work	Total Cost	Remarks
1	Strengthening airport's security by extending power supply to security watch towers at JIAP	10.432	Work completed
2	Improvement of power supply system at BKIAP Peshawar	11.013	Work completed
3	Installation of energy efficient hygienic hand dryers at JIAP, AIIAP, BKIAP, BBIAP, Quetta, & Multan airports	9.703	Work completed

4	Augmentation of aeronautical lighting system at BKIAP Peshawar	17.803	Contract signed. Work in progress and will be completed up to September, 2016
5	Augmentation of aeronautical lighting system at Bahawalpur airport	33.629	Work completed
6	Power supply arrangements for security system provided by Japan International Cooperation Agency (JICA) at AIIAP, BBIAP & JIAP	10.91	Work at completed at JIAP , AIIAP & BBIAP
7	Renovation of VVIP road lighting at Terminal-1 JIAP Karachi	7.469	Work completed
8	Augmentation and improvement of runway and apron lighting system at JIAP Karachi	14.389	Work completed
9	Improvement of power supply system at BBIAP Islamabad	16.343	Work completed
10	Rehabilitation / improvement of Aircraft Power Supply System at JIAP Karachi	164.99	Contract awarded. Work in progress, targeted date of completion is February, 2017
11	Rehabilitation / improvement of Aircraft Parking / Docking System at JIAP Karachi	114.552	Contract awarded. Work in progress, targeted date of completion is December, 2016
12	Procurement of generators for CAA locations	47.00	Contract signed for the following generator sets, under delivery:- Qty-01X750KVA, Qty-03X500 KVA, Qty-2X400 KVA Qty-01X200. While the case for procurement of Qty-03X300KVA generators is in progress
13	Providing & fixing of distance marking boards along with allied network & installation of mandatory guidance sign boards at airside of Nawabshah	7.389	Contract signed. Work in progress, targeted completion date is September, 2016
14	Underground laying of existing HT cables connected by M/s QESCO, EVHF station and generator room & street lights / security lights at Dalbandin airport	4.802	Work completed
15	Provisioning of dedicated separate / independent 11 KVA Power Feeder for Moenjodaro Airport	9.566	Work completed
16	Rehabilitation of AFL Circuits at Runway 25R - 07L at JIAP	5.862	Contract being signed on October, 2016, targeted date for

			completion January, 2017
17	Provision of external power supply & air-conditioning system to vault rooms at AIIAP Lahore	17.78	Contract has been signed. Work in progress, targeted date of completion October, 2016
18	Providing & laying of HT / LT cables & allied works for operational facilities at AIIAP Lahore	7.828	Contract being signed up to October, 2016
19	Installation / Replacement & Commissioning of Passenger Boarding Bridges at JIAP	2,000.00	Electrical Work has been completed and replacement work on Domestic Satellite is under progress
20	Procurement of Airport Runway Sweeper for CAA Airports - Qty:10	300.00	Runway have been delivered and deployed at different airports
21	Installation of new energy efficient centrifugal chiller at utility building JIAP	69.00	Work has been completed
22	Procurement of Wheeled Excavators Qty-02	30.77	The Excavators have been delivered and deployed at BBIAP and AIIAP
23	Procurement of Water Bowzer 10000 Ltr Qty 02	13.90	The Water Bowzers have been delivered and deployed at JIAP
24	Procurement of Passenger Baggage Trolley Qty: 4000	34.40	Trolley have been delivered and allotted to different airports
25	Procurement of RRDR Machine Qty: 01 for JIAP.	169.50	Machine is delivered at JIAP
26	Procurement Street Sweeper Qty: 04 for JIAP, AIIAP, BBIAP, MIAP	39.98	Tender action completed and case is under agreement stage
27	Replacement of Elevator 12 installed at JIAP	13.15	Work has been completed
28	Replacement of Chilled water pipelines at Level-3 and 4 of JIAP	9.56	Work has been completed

7. Finance Directorate

Budgetary position for the Financial Year 2014-15 (Actual) and Revised Estimate 2015-16

(Rs. in Millions)

	Actual 2014-15	Revised Estimate 2015-16`
Income / Revenue	50,819	65,517
Expenditure	32,908	36,773
Surplus Before Taxation	17,911	28,744
Taxation	4,556	12,507
Surplus After Taxation	13,355	16,237

8. Information Technology Branch

The details of progress made by IT Branch towards the achievement of its targets during the financial year 2015-2016 are mentioned below:

- Procurement, Installation and Commissioning of LAN infrastructure at AIIAP, Lahore.
- Procurement, Installation and Commissioning of LAN infrastructure at MIAP, Multan.
- Implementation of WiFi Infrastructure at HQCAA, Karachi.
- Up gradation of Uninterrupted Power Supply and Air-conditioning Units at Data Centre HQCAA, Karachi.
- Mobile Application Development for Flight Inquiry.
- Development and implementation of Pensioners Web Portal.
- Development and implementation of E-Billing System for Aeronautical Billing.
- Implementation of Flight Standards Management System.
- Implementation of Aero Medical Management System.
- Development and implementation of Online License Approval System (AT)

AIR TRAFFIC

The following air traffic was handled during the year 2014-15 and 2015-16:-

Traffic	2014-15*	2015-16*
Commercial Aircraft Movements (Number)	127,723	157,214
Total Passenger Handled (Number)	18,347,160	19,625,643
Total Cargo Handled (Metric Tons)	398,262	338,467
Total Mail Handled (Metric Tons)	3,490	13,882

*** Provisional Data**

9. Airworthiness Directorate

TASK	NUMBER
Certificate of Registration	24
Certificate of Airworthiness (Issue/Renewal)	130
Aircraft Maintenance Engineer's License (Issue/Renewal)	17,736
Maintenance Schedule	21
Welder's Approval	02
Supervision of Major Checks / Heavy Maintenance	99
Certificate of Organization Approval (Issue/Renewal)	56
Approval of Technical Handling Agencies (Issue/Renew)	21
Investigation, Inspection & Surprise / Spot Check / Ramp Inspection	574
Limited Authorization (Concessions)	330
Revenue Generated (Rupees)	Rs.11,29,56,078 Plus US\$.21,290



**Pakistan International Airlines
Corporation Limited (PIACL)**

Pakistan International Airlines Corporation Limited (PIACL)

Introduction

PIACL was established in 1956 under PIAC Act 1956. The present government is very keen to make state owned entities self-reliant and financially sound. PIAC is no exception. Erstwhile PIAC has been converted into a Public Limited Company through an Act of the Parliament, PIAC (Conversion) Act, 2016.

PIACL is passing through dire financial state. 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. The financial results for the year 2015 are as under:-

Particulars	(Rs. In Millions)
Turnover – net	91,269
Operating Cost & Expenses	(106,410)
Other Income	773
Exchange Gain (Loss)	(2065)
Finance Costs	(13,517)
Loss before tax	(29,953)
Taxation	(2576)
Loss after tax	(32,529)

It is worth mentioning that despite facing difficulties, PIACL has been able to improve upon its performance with reduction in losses. Federal Government's decision to reduce fuel prices has helped PIA in saving on its fuel cost significantly. Furthermore, PIA's Seat Factor also improved in comparison to previous years.

Presently PIA operates to 50 destinations including 28 international and 22 domestic. It has a market share of 25% to 27% international and 65% in domestic air travel market as compared with 24% and 46% respectively 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:

1. 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 of 60% from 22 to 36 in fleet. The detail of existing and planned fleet is as under:-

Total Active Fleet During 2013	Total Aircraft (Present)	Total Fleet Planned 2017
22	36	42

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.

2. 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.



3. 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 aircraft PIA will certainly avail opportunities to expand its network.

Additional flights have also been scheduled to increase international / domestic operation on viable routes as per following details;

From November 2016:

- 3rd Frequency on Kuwait (from Sialkot)
 - 7th Frequency on Kuala Lumpur
 - 3rd Frequency on Muscat (from Sialkot)
 - Four Additional flights to Jeddah (from Islamabad, Lahore, Multan & Faisalabad)
- From Dec '16:

- 6th Frequency on Kabul
- 3rd Frequency on New York (JFK)
- 4th Frequency on Paris
- 4th Frequency on Beijing

From October 2016:

- Additional daily flight added on Karachi—Lahore—Karachi route
- 3rd Flight added on Karachi—Sialkot—Karachi route
- Now daily flight on Karachi—Faisalabad—Karachi route

From November 2016:

- Additional flight on Islamabad—Faisalabad—Multan—Islamabad route on *Mondays*
- Additional flight on Islamabad—Multan—Faisalabad—Islamabad route on *Fridays*
- 2nd Frequency added on Karachi—Quetta—Turbat—Karachi route on *Fridays*

From December 2016;

- 7th Frequency added on Islamabad—Multan—Islamabad route
- Introduction of twice weekly flight on Multan—Quetta—Multan route

PIACL will resume its flight operation to Barcelona (Spain) and Salalah (Oman) in December, 2016.

The airline has also been involved in taking various steps in cost reduction and productivity improvement. This includes contracts re-negotiations, route rationalization/ restructuring by discontinuing loss making routes.

PIA has entered into Code Share agreement with Etihad Airlines which has helped in expanding its network. PIA is also in negotiations with other airlines for mutual cooperation which will certainly increase its customer base to a greater extent.

Through Code Share PIA and Etihad benefitted with additional 2,000 passengers during last two months (July-August 2015) and around 5,000 more reservations/bookings from September 2015 onwards.



4. 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 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.

5. 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.
- To give a fresh, smart and attractive look, a new uniform for Cabin Crew is under active consideration. Besides having aesthetic look the new uniform will have features containing cultural and national values to reflect representation of national flag carrier.

6. 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.

7. 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 a retrenchment of more than 100 local employees was accomplished.

8. 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%.



9. 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.

10. Improvement in Product

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

11. Revenue Enhancement

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

12. Cost Reduction

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

13. 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



Airports Security Force (ASF)

Airports Security Force (ASF)

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 aero plane in March 1981 and considering the security requirements, ASF was placed under the folds of Ministry of Defence in December 1983. Now, ASF is functioning under Cabinet Secretariat, Aviation Division since June 2013.

ASF started its journey by managing security of seven (07) major airports with a limited manpower of 2870 inclusive of all ranks. Presently, ASF is assigned security of forty-two (42) airports (9 x major & 33 x smaller airports) with a total strength of 9636 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 8th June 2014, Aviation Security has come into prominence as airports and commercial aircrafts are considered prime targets by terrorists. Aviation Security is the state responsibility for which Government is heavily investing in this field to mitigate threats posed to aviation industry.

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.

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.

Core Values

Core values to be inculcated in ASF are :-

- Operational Readiness (Proactive Approach)
- Zero Tolerance (High Standard of Discipline)
- Integrity (No Corruption)
- Firmness and Courtesy (Good Public Image)
- Continuous Improvement (Quest for Excellence)

Aviation Security Challenges

Some of the major challenges to Aviation Security are:-

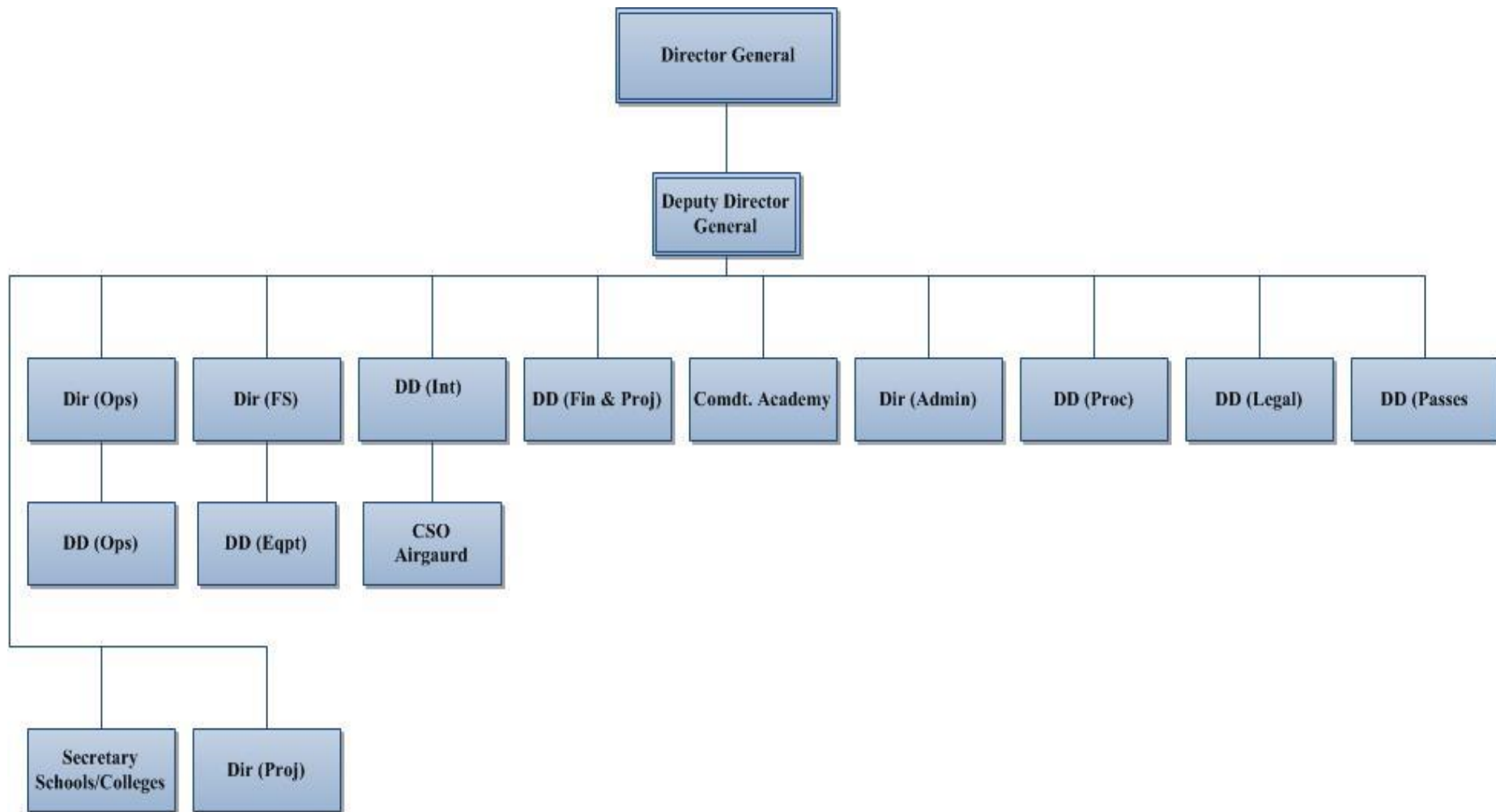
- a. Asymmetric Warfare.
- b. Variable Terrorist Threats.
- c. Increasing Criminal Activities.
- d. Structural Security Weaknesses.
- e. Technological Shortcomings.
- f. System Vulnerabilities.
- g. Shortage of Manpower.
- h. Shortage of Latest Weapon / Equipment.

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.

Organogram



Manpower

a. State of Manpower

	<u>Authorized</u>	<u>Held</u>	<u>Deficient</u>
1) Uniformed Staff	10963	9342	1621
2) Ministerial Staff	704	542	162

b. 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 during 2016 for strengthening and reinforcement of security at all airports to counter the prevalent threats to Aviation Industry.

Specialized Courses

- a. Intelligence Course
- b. Advance Screener Course
- c. Admin Course
- d. UAC
- e. Weapon Instructors Course.
- f. Drill Instructor Course.
- g. IT Course
- h. ATC Course.

Achievements

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 2015-16 reflects the state of alertness and vigilance of ASF at airports:-

1. 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	2500
		Unlicensed	500
2	Revolver / Pistol	Licensed	1590
		Unlicensed	415
3	Ammunition (Rounds)	Licensed	160510
		Unlicensed	3000
4	Magazine	Licensed	3650
		Unlicensed	355
5	Daggers/Knives/ Others		1880

2. Recovery of Narcotics

ASF staff during performance of their duties at various airports recovered 228.65 x KGs Heroin during the financial year 2015-16. The accused passengers along with recovered Heroin were handed over to Anti Narcotics Force for legal action.

3. Recovery of Currency

ASF staff during performance of their duties at various airports recovered 44,58,780 x Pak Rupees, 8,10,500 x US \$, 4,50,150 x UAE Dirham, 15,800 x Saudi Riyal, 2,000 x British Pound, 1,050 x Canadian Dollar, 11,10,000 x Ugandan Shilling & 19,400 x Kenyan Shilling during the financial year 2015-16. The accused passengers along with recovered currency were handed over to Pakistan Customs for legal action.

4. 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.

Air-guards Operations

ASF has an Elite Force comprising specially trained and robust men and 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

1. Training at ASF Academy

ASF Academy at Karachi caters for all types of training of ASF personnel. 2036 x all ranks were imparted training during financial year 2015-2016 as under:-

<u>Courses</u>		<u>All Ranks</u>	
(1)	Company Commander	=	18
(2)	Promotion Cadre	=	545

(3)	Advance Screener	=	77
(4)	Intelligence	=	29
(5)	ATC	=	67
(6)	OBASC	=	16
(7)	Method of Instruction	=	16
(8)	BASC	=	1203
(9)	Preparatory Screener	=	45
(10)	ASF Police	=	20
Total		=	2036

2. 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 who attended Advance / Special Screener / other courses is appended below :-

1)	Pakistan International Airlines	=	21
2)	Shaheen Airport Services	=	35
3)	Pakistan Air Force	=	33
4)	Royal Airport Services	=	16
5)	Emirates Airline	=	19
6)	Gerry's Dnata	=	17
7)	Pakistan Coast Guards	=	08
8)	SIAL	=	02
9)	TCS	=	04
10)	Anti Narcotics Force	=	12
11)	AAPS	=	05
Total		=	<u>172</u>

3. Training / Inspection Abroad

18 x officers / officials attended Aviation Security Course / inspection at China, USA, Japan & UK.

4. Local Courses

118 x ASF staff attended different courses in various training institutions in Pakistan.

Procurements

1. Uniform & Protective Clothing

In order to deploy a smartly turned out force at our airports and inculcate pride in uniform of Aviation Security, a budget of Rs.133,300,000 has been consumed for the procurement of uniform items.

2. 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.132,357,000 has been consumed for the procurement of vehicles.

3. Plant and Machinery

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.30,800,000/- has been consumed for the procurement of Plant and Machinery to enhance the security standards.

4. Arms & Accessories

Budget of Rs.167,947,650/- has been consumed for the procurement of Arms & Accessories.

5. Ammunition

Budget of Rs.41,683,250/- has been consumed for the procurement of Ammunition.

6. Hardware and Software

Budget of Rs.8,576,000/- has been consumed for the procurement of Hardware and Software.

Finance and Project

1. Budget Allocation & Utilization 2015-16 (Non Development Grant)

(Rupees in Million)

a. Employees Related Expenses	=	3992.000
b. Token Suppl. Grant (Reg Allowances)	=	0.014
c. Contingent Charges	=	1090.000
d. Reg Suppl. Grant	=	<u>60.100</u>
Total	=	<u>5142.114</u>

2. Budget Allocation & Utilization 2015-16 (Development Grant)

Project: Construction of living accommodation for ASF at NIIA Islamabad

Budget Allocation = Rs.400.000 Million

Considering the sensitivity of Aviation Industry in Pakistan and threats of terrorism, there is a need to enhance security measures at the airports. The Aviation Security in Pakistan due to its unique geo political situation and multiple / diversified threats perception has its own significance. The security at airports has been intensified and the capability of Aviation Security Personnel enhanced to pre-empt and counter any terrorist attack. In order to maintain International Aviation Security Standards according to International Civil Aviation Organization (ICAO) recommendations, budget for procurement of Security Equipment, Arms, Ammunition and Transport needs to be increased substantially. Similarly, long outstanding accommodation issue of ASF needs to be addressed through increase in PSDP allocation by the Planning Commission of Pakistan.



Pakistan Meteorological Department (PMD)

Pakistan Meteorological Department (PMD)

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, climatologically, hydrological, agrometeorological and seismological data for undertaking multifarious activities mainly in the field of Meteorology, Hydrology and Seismology in the fulfillment of its objectives and obligations. In addition to having various specialized units and centres (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 Gilgit-Baltistan. 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 Quetta. PMD is a progressive organization aimed at developing and adopting latest methods of observation, forecasting techniques and acquiring modern equipment and state-of-the-art technology like satellite ground receiving station (digital video broadcast receiving station), numerical weather prediction tools and high precession computational equipment, network of weather radars, remote sensing devices, communication facilities; etc.

Vision

To delivered quality forecast, warning and advisory services to support mitigation of disasters from weather and geophysical phenomena with in Pakistan.

Mission

To provide effective Hydro-meteorological 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.

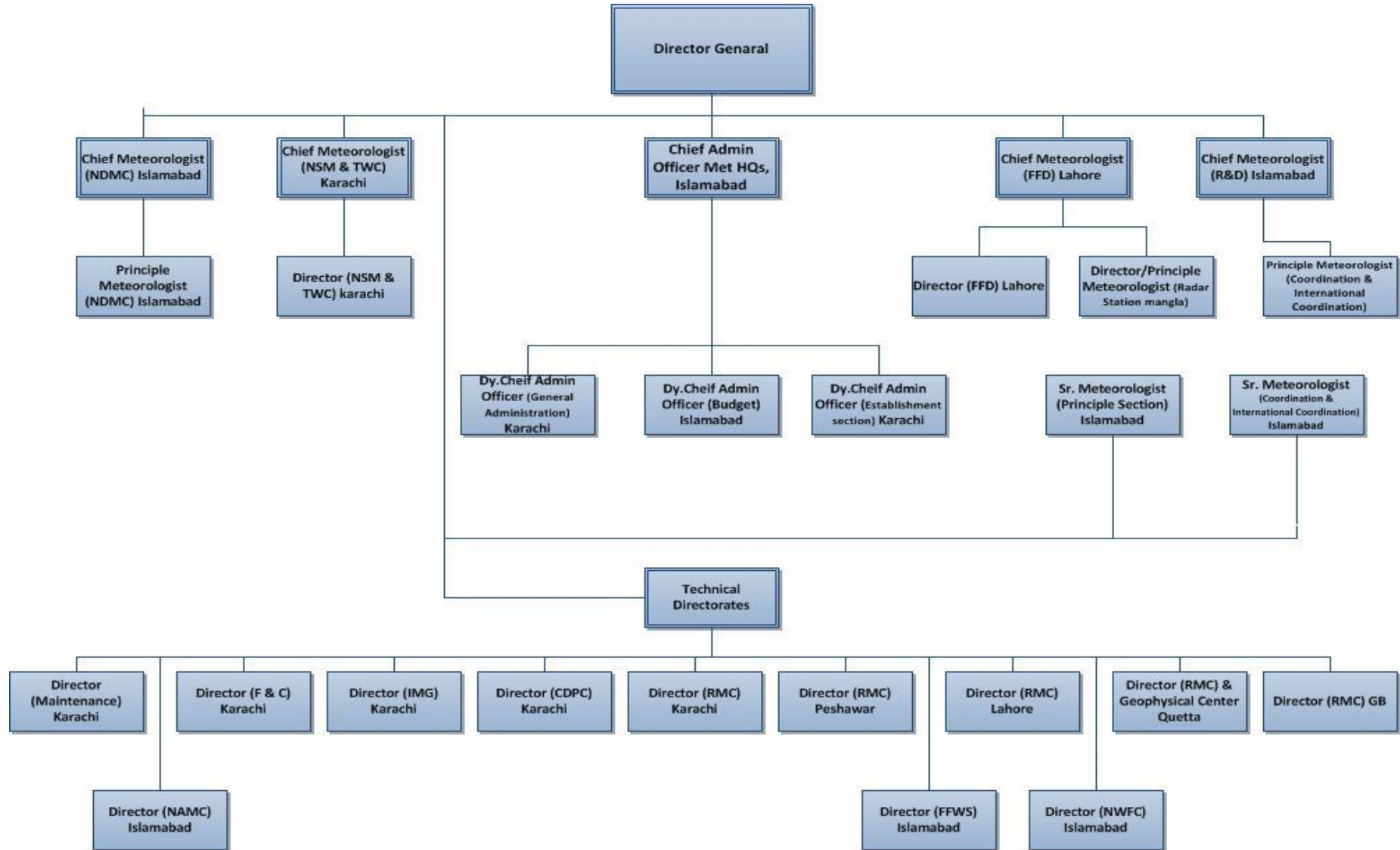
Tasks

- 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 agro-meteorological 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 2488 personnel comprising 354 officers (BS-16 & above) and 2134 staff member.

Organogram



Main Functions

The services being rendered by PMD to different Ministries / Organizations are 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 and 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 and 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 and 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 Approved or Executed Projects during the Year 2015-2016

S.No.	Name of Project	Capital Cost of the Project (Rs. in Million)	Allocation 2015-16 (Rs. in Million)	Activities Fixed for 2015-16	Achievement / Progress 2015-16
1	Establishment of Flood Forecasting & Warning System for Kalpani Nullah Basin, Mardan (KP)	230.000	3.500	Radar building	Partially achieved
2	Establishment of Main Meteorology Office at New Islamabad International Airport at Islamabad	28.923	9.581	Purchase of equipment & purchase of vehicle	Achieved
3	Establishment of Specialized Medium Range Weather Forecasting Centre (SMRFC) and Strengthening of Weather Forecasting system in the Islamic Republic of Pakistan	2502.532	9.001	Bank Fee	Achieved
4	Installation of Weather Surveillance Radar at Karachi in the Islamic Republic of Pakistan	1580.000	6.501	Bank Fee	Achieved

Achievements during 2015-16

1. Monsoon Outlook for 2016

PMD issued Monsoon Outlook 2016 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.

2. 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 2015 and made all necessary preparations for continuing this practice during monsoon season 2016. Further, PMD also issues district levels forecast to the stakeholders.

3. 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.

4. Establishment of Meteorological Observatories in Layyah and Kot Addu

As a step towards strengthening the meteorological observation network of PMD, two (02) Meteorological Observatories were established in District Layyah and Kot Addu (District Muzaffargarh). These observatories are functional since 1st June, 2015.



5. Expansion of Weather Services to Aviation Sector at Faisalabad International Airport

For the provision of quality aeronautical meteorological services at Faisalabad International Airport, PMD has submitted proposal to the Government of Pakistan for provision of additional staff for the smooth operation of international flights. In this regard, all the necessary arrangements are also being made to upgrade the Aero-Met Observatory into Meteorology Office, Faisalabad so that Meteorological Products i.e. TAFOR, ROFOR, SIGMET, METAR, etc. could be available to facilitate Hajj operation, national and international flights, and army aviation operations.

6. Installation of two weather radars at Karachi and Islamabad by JICA

JICA / Government of Japan has taken number of steps to enhance weather forecasting and warning capabilities of PMD. Under JICA sponsored project "Establishment of Specialized Medium Range weather Forecasting Center (SMRFC) and Strengthening of Weather Forecasting System in Pakistan", two weather radars



Islamabad Radar Tower Building

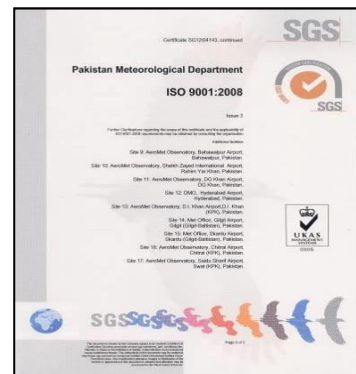
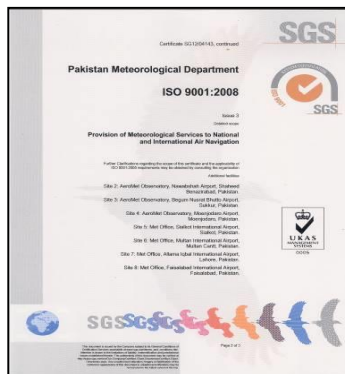
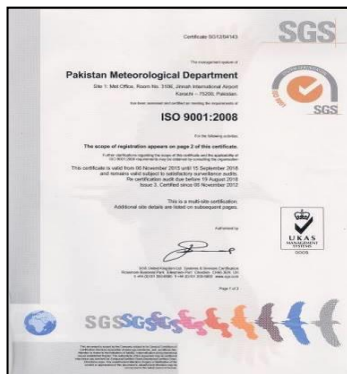


Karachi Radar Tower Building

are under construction at Meteorological Complex, Islamabad and Karachi replacing the old radars.

7. Implementation of Quality Management System (QMS): ISO 9001:2008 Re-certification:

PMD is the only Aviation Meteorological Services Provider of Pakistan and has been implementing ISO 9001:2008 compliant Quality Management System (QMS) since 6th November, 2012 for provision of meteorological services to international air navigation at its Meteorological Offices located at 17 Airports countrywide. During November, 2015, upon the satisfactory Surveillance Re-Certification Audits, the UK Accreditation Service (UKAS) has endorsed Re-certification for above mentioned Meteorological Offices upto 15th September, 2018



8. Phone based Weather Information Service launched by PMD

PMD in collaboration with the Centre for Language Engineering (CLE) of University of Engineering & Technology (UET), Lahore established the Pakistan-wide Phone based Weather Information Service which was inaugurated on 13th August, 2015 by Chairman, NDMA at Meteorology Headquarters, Islamabad. Five dedicated telephone lines have been provided for dissemination of weather information of 139 districts of Pakistan round-the-clock by dialling the UAN number 051-111-638-638.

9. Community Awareness about Glacial Lake Outburst Flood (GLOF)

Glacial Lake Outburst Flood (GLOF) has become number one disaster in glaciated northern Pakistan. PMD has established Community Based Warning System for GLOF in three valleys (Bagrot, Bindogal and Golain valleys) in the northern areas with the financial assistance of UNDP. The early warning system worked very well and PMD's timely alerts saved lives and property of the local communities in these valleys during summer season 2015.

10. Training Abroad

Around 58 short-term trainings/workshops/seminars abroad availed by 67 PMD scientists during 2015-16. 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 proceeded abroad for undertaking Ph.D program offered by King Abdul-Aziz University, Jeddah, Saudi Arabia and Chinese Academy of Sciences (CAS), China under their fellowship programs, while one officer proceeded to Japan for undertaking MS in Hydrology and Water related Disaster Management.

11. National Seismic Monitoring and Tsunami Early Warning Centre

PMD's National Seismic Monitoring and Tsunami Early Warning Centre provide earthquake information to all concerned stakeholders, government functionaries, electronic and print media. This centre is also responsible for the issuance of tsunami warning in case of any threat of tsunami occurrence.

12. Training to the Meteorology Officials from neighboring Countries

In 2015, upon request of Department of Meteorology, Sri Lanka, three (03) Met personnel were accommodated in 76th Preliminary Meteorology Course at PMD's Institute of Meteorology & Geophysics (IMG), Karachi. Air travel and stipend of participants was borne by Govt. of Sri Lanka and PMD provided waiver towards tuition fee and free accommodation in hostel facilities of IMG Karachi. Similarly in February 2016, three (03) more Met officials from Department of Meteorology, Sri Lanka also attended "77th Preliminary Meteorology Course" from 26th February, 2016.

13. Meteorological Service of Saudi Arabia Requested Expert from PMD

The General Authority of Meteorology & Environmental Protection (GAMEP) of Kingdom of Saudi Arabia has requested for two (02) trainers / experts from PMD to impart training and capacity development of PME in the field of climatology, severe weather prediction and numerical weather prediction. The nomination case for final approval of the Government of Pakistan is under process with Aviation Division.

14. MoU signed between PMD and Qatar Meteorology Department (QMD) in the Field of Marine Meteorological Services

A Memorandum of Understanding (MoU) was signed between Pakistan Meteorological Department (PMD) and Qatar Meteorology Department (QMD) on October 28th, 2015 in Doha, Qatar for enhancing cooperation and coordination in the field of meteorological services and to support the Global Maritime Distress and Safety System (GMDSS) in the Gulf Sea. The cooperation includes multiple aspects; including capacity building in the field of marine meteorology, numerical weather prediction and will also support applications of scientific research in the field of fluctuations in climate and climate change, marine disasters related to weather.



15. MoU between PMD and Meteo-France for Cooperation in the Field of Meteorology

A Memorandum of Understanding (MoU) between Pakistan Meteorological Department (PMD) and Meteo-France for strengthening cooperation in the field of meteorology between two organizations in-line with the objectives of the World Meteorological Organization (WMO) is under process with the Government of Pakistan for seeking approval. The proposed areas of cooperation under this MoU are given below:

- Improvement of forecasting activities including cooperation on establishing Numerical Weather Prediction Centre for short and medium range weather forecast,
- Early Warning for natural disaster and mitigation (civil protection) including advisory services for the protection of human life, property and the environment, with special focus on the implementation of a heat wave early warning system

- Applications of the science of meteorology to socio-economic development, with special focus on wind and solar power potential assessment,
- Support to Climate Fora, and implementation of a National Climate Centre
- Education and training, including assisting each other with expertise as necessary, through exchange of information, scientific and technical personnel, through know-how transfer, joint studies and research of subjects of mutual interest

16. 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 Government 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 launched in March, 2015.

Budget

Detail of PMD budget for the Financial Year 2015-16 is given as under:

a.	Original non-Development Budget	Rs. 969,000,000
	Token Supplementary Grant	Rs. 24,000
	Supplementary Grant	Rs. 7,905,000
	Total Non-Development Budget	Rs. 976,929,000
b.	Total Development Budget	Rs. 28,581,000

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.